



WEST AFRICAN ECONOMIC AND MONETARY UNION

SELECTED ISSUES

March 2023

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REVAMPING THE WAEMU FISCAL FRAMEWORK¹

It is essential and urgent to reintroduce the fiscal rules and the Convergence Pact and to enhance the rules. Revamping the rules should focus on introducing a correction mechanism (which could contain surges in debt in the future) and an escape clause (which would enhance fiscal discipline and predictability), as well as capturing the extensive extra-budgetary and below-the-line operations and strengthening the enforcement mechanism. Any consideration to changing the fiscal deficit target should also encompass addressing extra-budgetary and below-the-line transactions (for example by changing the definition of the deficit). It is not appropriate to increase the debt ceiling.

A. Overview

- 1. The WAEMU's economy was relatively resilient to the Covid pandemic shock, and the growth rebound that started in Q3-2020 has continued in 2022.** This strong economic performance was due to the favorable macroeconomic performance achieved prior to the Covid shock, but also to the swift and decisive policy actions by national and regional authorities in response to the pandemic.
- 2. However, those policy responses came at a cost on the fiscal front.** First, the suspension of the Convergence Pact and the set of fiscal rules in April 2020 led to the loss of a fiscal anchor.² Second, debt surged, in part because of the large fiscal deficits, but also due to particularly large fiscal and quasi-fiscal transactions extra-budgetary and below-the-line (so called stock flow adjustments, SFA).
- 3. While supporting the economy by avoiding an excessive or premature tightening of public finances is important, implications on debt and the associated risks should be taken into consideration.** Although debt may be useful for WAEMU to finance development, social, and security needs (see, for example, Dessus et al (2016) and Dieterich et al (2016)), higher levels of debt bring several risks. First, there are risks related to financing constraints. In particular, due to a shallow regional market, excessive domestic financing to the budget can possibly crowd out bank credit to the private sector, increase financing costs with a possible drag on growth, and pose risks to financial stability by deepening the sovereign-bank nexus. Second, there are risks to fiscal sustainability, as high and rising debt levels—in some WAEMU countries in particular—may be perceived as excessive by some investors and donors who could thereby be deterred from providing much needed funding. Third, excessive fiscal deficit may induce larger current account deficits, and risks of unsustainable debt may deter external financing. Both factors could lead to a weaker official

¹ Prepared by Can Sever (AFR) and Athene Laws (SPR). We thank Luca Antonio Ricci, Alain Feler, and our colleagues at the IMF for extremely helpful inputs.

² "In April 2020, the Heads of States of the eight WAEMU member countries) suspended their fiscal rules (including a deficit ceiling of 3 percent of GDP and a debt ceiling of 70 percent of GDP). No time horizon was specified to reinstate the rules and other convergence criteria. However, in June 2021, Heads of States of all WAEMU countries committed along with their peers from other ECOWAS countries to converging toward the fiscal deficit anchor over the years 2024–26" (Davoodi et al (2022)). It is also worth noting that the fiscal rules expired following its suspension.

reserves position with the risk of jeopardizing external viability and the sustainability of the peg eventually. The tightening of global financing conditions, which have recently led to a surge in spreads for all emerging and developing countries, exacerbates some of these pressures.

4. Therefore, going forward, more emphasis should be put on debt and the drivers of its continuous accumulation. In particular, the focus should be on the sustainability of the debt trajectory, as well as revamping the set of fiscal rules in a way that establishes a credible and effective fiscal anchor. At the same time, the authorities should pay particular attention to the ability to generate more revenues in order to increase the capacity to repay debt.

5. More precisely, in order to preserve debt sustainability and restore fiscal credibility going forward, there is a strong and urgent need for reintroducing a regional set of fiscal rules and a Convergence Pact. The previous fiscal target of 3 percent of GDP has shown its limits in terms of containing debt. A new fiscal anchor is essential to preserve debt sustainability, provide credibility to fiscal policy commitments, anchor expectations, avoid continuing deficit slippages by member countries, and hence contain the associated risks. Reintroducing a fiscal deficit rule also provides a window of opportunity to revamp it with the following major blocks.

6. The most important change to the previous fiscal rule would be introducing a debt correction mechanism to ensure the debt ceiling is not breached. Indeed, repeated deviations from the fiscal deficit target, as well as significant extra-budgetary and below-the-line operations, have generated an excessively rapid increase in debt. Going forward, these factors could even push debt beyond the ceiling. Exceeding the fiscal deficit target and/or debt ceilings should therefore be compensated through appropriate fiscal adjustments in the following years, except under exceptional circumstances.

7. Implicitly or explicitly, the fiscal rule needs to capture extra-budgetary and below-the-line operations that increase debt. As the analysis in this paper indicates, those operations were historically large, and are responsible for a large portion of the outstanding stock of debt. Going forward, if those extra-budgetary and below-the-line operations persist as in the past, the debt path would increase much more than implied by the 3 percent of GDP fiscal deficit target and would be on a non-sustainable path. Hence, even reintroducing the same fiscal rule as before, without addressing extra-budgetary and below-the-line operations, would not stabilize the debt, particularly in the case of new macroeconomic and financial shocks in future. There are feasibility challenges associated with including SFA in a deficit measure, hence an alternative option to address the impact of SFA on debt is to establish a well-designed and enforced correction mechanism, triggered when debt increases too fast (due to SFA or other reasons).

8. The new set of fiscal rules should be improved via various supporting arrangements. Those include an escape clause (to both ensure more predictability for the circumstances under which the target may need to be temporarily altered and avoid the uncertainty about when the rule will resume), and broader mechanisms for assessment, accountability, enforcement, and discipline, as well as possibly additional operational frameworks based on intermediate and complementary targets.

9. Consideration should also be given to the convergence period. Any delay of fiscal convergence from 2024 should be grounded on solid justifications, such as exceptional needs for expenditure in response to future shocks, additional security and social challenges, or excessive strain on the economy from a large and fast consolidation. Such delays should also be supported by reasonable expectations that the required additional financing would be available at terms in line with debt sustainability.

10. Preserving the debt ceiling. Some authorities would favor a debt ratio ceiling higher than 70 percent of GDP, but the heightened global volatility calls for buffers. Going forward, global market rates may no longer revert to the historically low levels (at least not soon), making it harder to control the interest payment burden in the budget allocation. Moreover, in light of recent high volatility and global shocks, it may be essential to ensure higher future fiscal space to cope with shocks. All this argues against an increase of the debt ceilings.

11. Finally, the fiscal strategy should also crucially encompass efforts towards increasing domestic revenues (in addition to considering debt sustainability, the fiscal framework, and extra-budgetary and below-the-line operations). Ultimately, what makes debt sustainable is the ability to service it, and domestic revenue mobilization is a crucial part of this process. While debt has helped WAEMU countries to finance development and social spending—and, more recently, cope with major global shocks—going forward this trend is not sustainable and domestic revenue mobilization should increasingly become the key tool to finance development and social needs, and countries should find the right balance between domestic revenues and debt for that purpose.

B. Debt Dynamics and Stock Flow Adjustments in WAEMU Countries

Debt Has Been Persistently Increasing

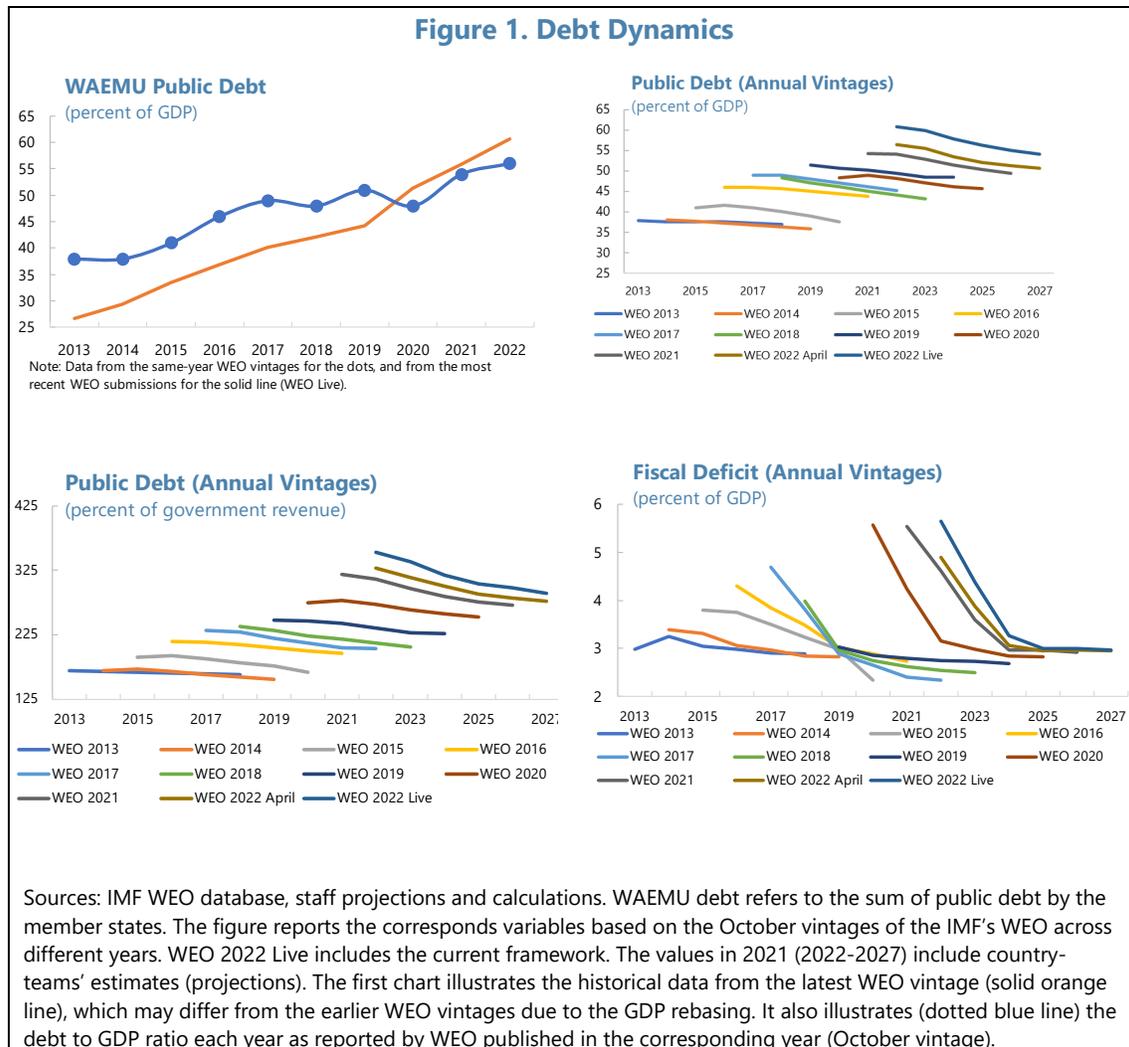
12. WAEMU public debt has been rising since 2010s. Various vintages of IMF WEO show that the WAEMU public debt as share of regional GDP has been persistently increasing over the years, despite a persistent forecast each year of a debt decline over the horizon (Figure 1). The top left chart illustrates that debt to GDP ratio has been increasing based on the most recent data from WEO Live (orange line, which encompasses all data updates so far), and also from the same-year vintages of WEO for each year (dotted blue line, which instead reflect debt ratios as of the vintage from that particular year). The top right chart shows that in each WEO vintage, debt was projected to decline, but as the blue line in the top left chart shows, it was increasing with respect to the previous year.³ Moreover, WAEMU public debt has been rising more than the government revenues undermining the capacity to repay debt (Figure 1).

³ Note that each dot on the top left chart corresponds to the beginning point of the corresponding WEO vintage on the top right chart. Regional debt to GDP ratio has been revised over the years, notably due to the national GDP rebasing exercises between 2015 and 2019. As a result of this rebasing process over the years, WEO Live (the most recent data, orange line in the top left chart) shows a lower debt ratio for the earlier years than the original (same-
(continued)

Stock Flow Adjustments Have Been a Key Driver

13. The countries' debt dynamics were affected not only by the fiscal deficit but also by stock flow adjustments (Figure 1). The level of debt in any given year is a function of the previous year's debt, fiscal deficit, a nominal growth effect, an exchange rate effect, a guarantees effect, and a residual (so called SFA). SFA represent any extra-budgetary and below-the-line operations not taken into account in standard above-the-line, because they do not reflect standard spending and revenue (see Annex I for a detailed explanation of possible reasons driving SFA). Although they are not captured in the normal budget envelope—they need to be financed and therefore feed into debt accumulation. Ideally, SFA should be around zero.

year) vintage (blue line in the top left chart). This implies that in Figure 1 the rise in debt over time (as shown by the orange line in the top left) is even higher than what is visible from the chart with the various vintages (top right chart).

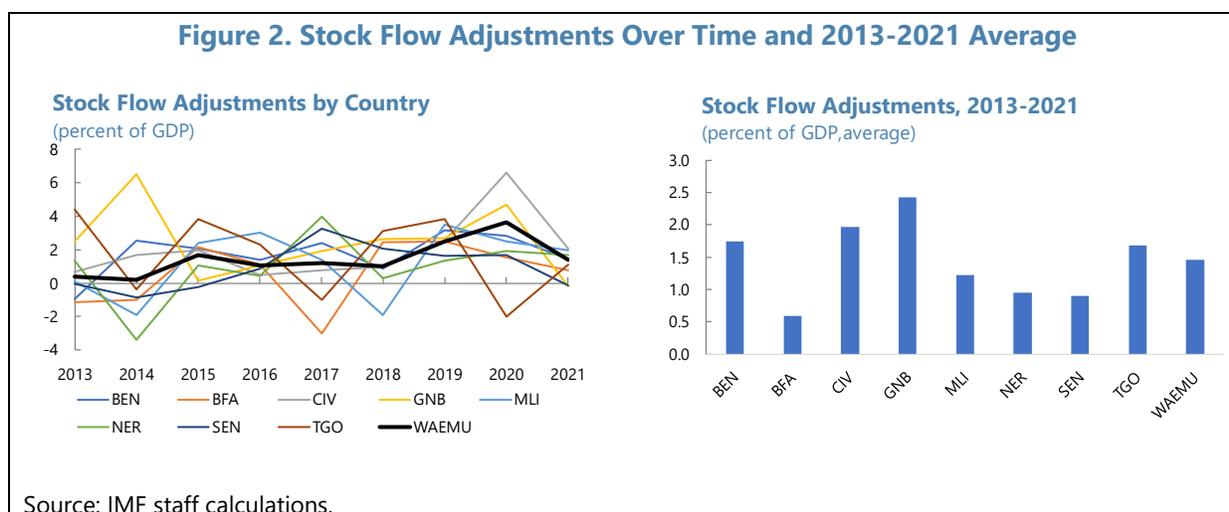


14. SFA have been historically large in WAEMU, significantly contributing to the increasing trend in debt, on top of fiscal deficits. Table 1 and Figure 2 present annual SFA at the regional and country levels from 2013 to 2021. They indicate that SFA varied considerably across countries and years, from negative contributions to debt in a few cases, to large positive additions. SFA averaged 1.5 percent of regional GDP per annum from 2013 to 2021. If the pandemic period (2020-2021) is excluded, the historical SFA would still be large (on average, 1.1 percent of the regional GDP over the period of 2013-2019). There is substantial heterogeneity across countries, with two countries exhibiting an average SFA of 2 percent of GDP or above, and two countries with SFA below 1 percent of GDP.

Table 1. WAEMU: Estimated SFA, 2013–2021

SFA, % of GDP	2013	2014	2015	2016	2017	2018	2019	2020	2021	Avg: 2013-2021
BEN	-1.0	2.5	2.0	1.4	2.4	0.9	3.2	2.8	1.4	1.7
BFA	-1.1	-1.0	2.2	1.1	-3.0	2.4	2.5	1.5	0.8	0.6
CIV	0.7	1.7	2.0	0.5	0.8	0.9	2.5	6.6	2.0	2.0
GNB	2.5	6.5	0.1	1.0	1.9	2.6	2.7	4.7	-0.2	2.4
MLI	0.1	-1.9	2.4	3.0	1.4	-1.9	3.5	2.5	2.0	1.2
NER	1.3	-3.4	1.1	0.4	4.0	0.3	1.3	1.9	1.7	1.0
SEN	-0.1	-0.9	-0.2	0.9	3.2	2.1	1.6	1.7	-0.2	0.9
TGO	4.4	-0.4	3.8	2.3	-1.0	3.1	3.8	-2.0	1.1	1.7
WAEMU	0.4	0.2	1.7	1.1	1.2	1.0	2.5	3.6	1.4	1.5

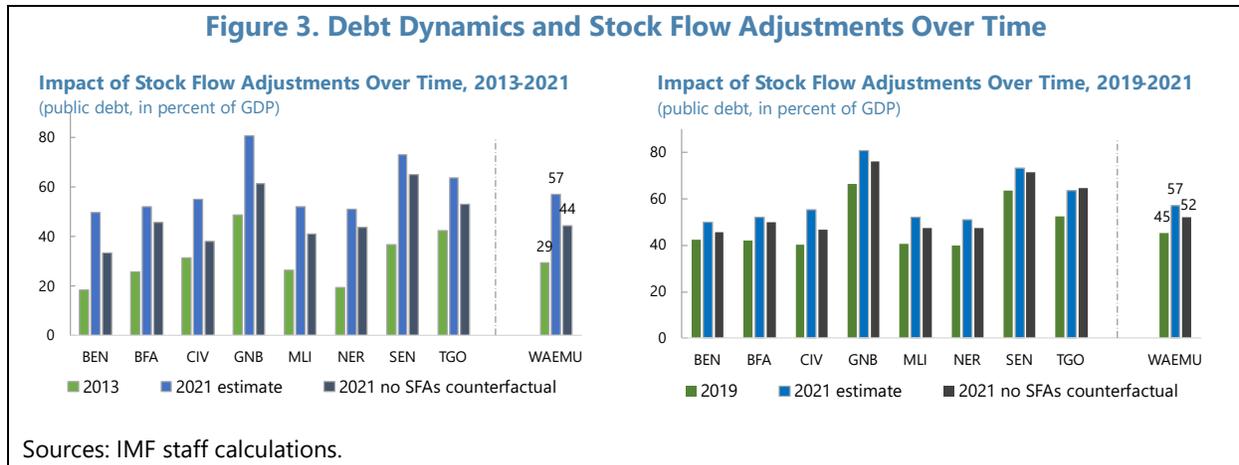
Sources: IMF staff calculations.

Figure 2. Stock Flow Adjustments Over Time and 2013-2021 Average

Source: IMF staff calculations.

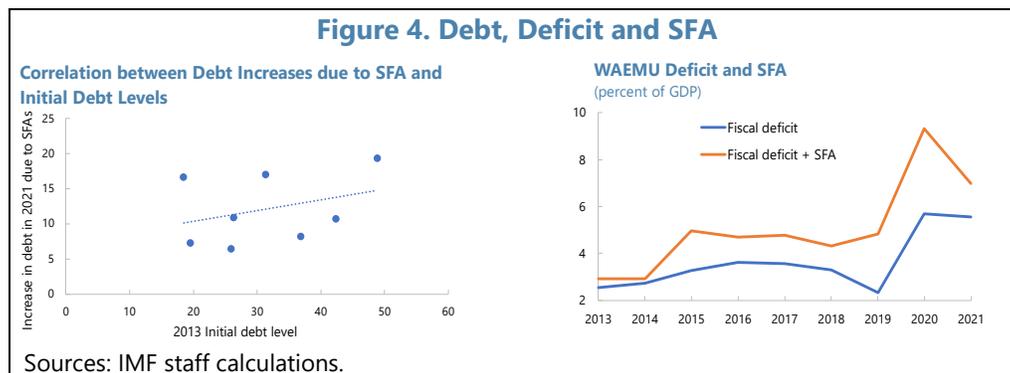
Counterfactual Analysis: The Contribution of SFA to WAEMU Debt Dynamics

15. SFA has contributed to the existing debt in the amount of about 13 percentage points of regional GDP since 2013. An initial question to explore is the contribution of SFA to existing debt overtime. At region and country levels, Figure 3 displays the level of debt in 2013 (green bars) against the 2021 estimated debt level (light blue bars). A counterfactual scenario where historical SFA were zero during this period is also shown (dark blue bar). For all countries, in the absence of SFA, the 2021 debt would have been substantially lower than the actual estimated level. For WAEMU as a whole, debt is almost 13 percentage points of GDP higher than would have been without SFA, so that SFA account for about half of the increase in debt to GDP over that period (28 percent). Looking at a much narrower time window, i.e., 2019-2021 only, SFA contributed to regional debt in the amount of 5 percentage points of regional GDP (again almost half of the total increase in debt to GDP, about 12 percentage points, hence a similar share).



The Relation of SFA with Debt and Deficit

16. Countries with initially higher debt accumulated more SFA over time. There is a positive correlation (0.34) between the level of initial debt and the contribution of SFA to debt accumulation (over 2013-2021) at the country level. Put differently, countries with higher initial debt to GDP ratios accumulated more debt through SFA, on average, than those who began with lower debt to GDP ratios. The positive correlation may suggest that more highly indebted countries turn to transactions that create SFA under increased scrutiny with respect to their debt or deficit numbers, or they simply have less PFM capacity to contain SFA. Looking at the evolution of above-the-line operations (fiscal deficit) together with other debt-increasing factors (i.e., SFA) at regional level over time, it is clear that the fiscal deficit offers highly incomplete information in assessing debt accumulation in WAEMU over the years (Figure 4).



Debt Dynamic Simulations: Alternative Assumptions About Fiscal Targets and Extent of SFA

17. We undertake scenarios to examine the implications of different fiscal deficit targets and SFA paths on future WAEMU debt dynamics. Table 2 represents four scenarios, based on: (i) two assumptions on SFA (future SFA being close to zero versus staying at the historical average, i.e. 1.5 percent of regional GDP per annum), and (ii) two possibilities for the fiscal deficit target (convergence by 2025 to 3 percent versus 4 percent deficit, both as above-the-line measurements).

The scenarios with zero SFA going forward could be considered as scenarios in which the deficit target is no longer measured above-the-line, and it instead includes extra-budgetary and below-the-line operations, i.e. the deficit is measured as financing minus accumulation of assets.⁴ One of the four scenarios correspond to the baseline scenario associated with the IMF country teams' forecasts, which envisage minimal levels of SFA starting from 2022, which may not be realized in practice given the persistence of SFA historically. The other three scenarios reflect those alternative SFA and/or deficit combinations.

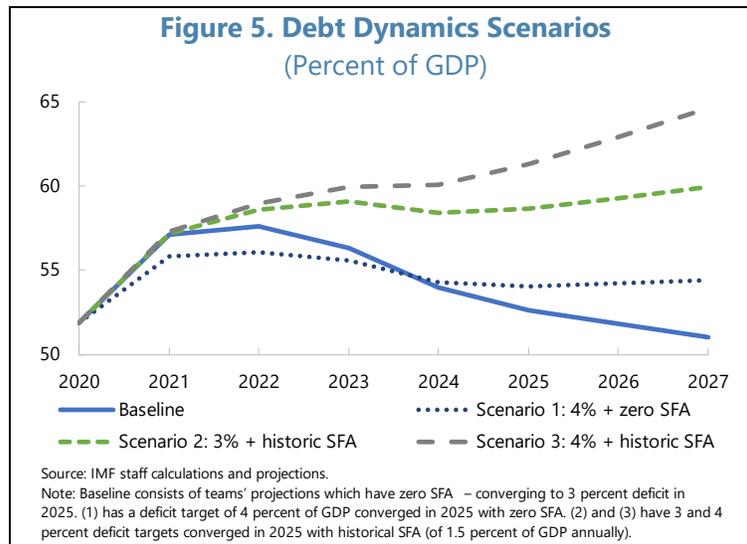
Table 2. WAEMU: Scenario Assumptions		
	Converge in 2025 to 3 percent deficit	Converge in 2025 to 4 percent deficit
Zero SFA	Baseline	Scenario 1
Historical SFA	Scenario 2	Scenario 3

18. Simulations show that bringing SFA under control is essential to ensure debt stabilization over medium term. Figure 5 illustrates the debt dynamics for the WAEMU region for the different scenarios, as explained above. When SFA are assumed to be zero and countries converge 3 percent deficit target by 2025, i.e. the baseline in Figure 5, debt gradually declines (the solid blue). If, instead, countries were to agree to a 4 percent deficit but still with zero SFA (Scenario 1) debt would be slightly higher in 2027 and broadly stable (dotted line). This scenario is equivalent to a deficit measure as financing minus accumulation of assets (or deficit above- and below-the-line and also accounting for extra-budgetary operations) aimed at partially accounting for SFA (to the tune of 1 percent of GDP instead of the historical 1.5 percent). Although this option seems to somewhat stabilize debt over medium term, debt would no longer decline, and hence buffers would not be restored, so that any adverse shock would continue to ratchet debt upwards. Next, Scenario 2 illustrates the debt dynamics with a 3 percent deficit target but allowing for historical SFA. This combination, which represents the *status-quo* (in the sense of the historical target and the historical SFA), would imply a non-stabilizing debt path over medium term, although the increase would be mild (dashed green line). Strikingly, a hypothetical deficit level of 4 percent of GDP combined with SFA persisting as in the past would lead to a quickly explosive debt pattern over medium term (Scenario 3, dotted gray line). It is worth noting that the simulations as represented above do not account for additional negative shocks that could continue to derail the debt ratio upwards. Also, when dealing with debt stabilization forecasts it is important to continue checking the impact of possible medium-term changes to growth and interest rate paths for each country.

19. The only option to stabilize debt and recover buffers is to stick to the 3 percent fiscal deficit target while addressing the SFA. The simulations indicate that the only scenario consistent with both debt stability and the recovery of some fiscal buffers to cope with future shocks is the baseline scenario, with a deficit target of 3 percent of GDP and elimination of the SFA. This corresponds to measuring the deficit to include both above- and below-the-line as well as extra-budgetary operations (i.e., conceptually equivalent to financing minus accumulation of assets), although including SFA in a deficit measure directly is not necessarily desirable from a feasibility

⁴ To the extent they are known, other drivers of SFAs (as summarized in Annex I) should also be accounted for.

point of view. Moving the deficit target to 4 percent and eliminating the historical SFA would barely stabilize the debt, without the ability to recover buffers. Therefore, future shocks would likely increase debt, and reduce the fiscal space, thereby exposing the member states to external vulnerability. In the other two scenarios, where it is not possible to reduce SFA from their historical SFA, debt would be on an increasing path. Hence, the deficit target is important, but the ability to control SFA and contain extra-budgetary and below-the-line spending is crucial for debt dynamics, under any reasonable parametrization of the fiscal rule.



20. The implications of SFA for country-specific debt dynamics differ significantly. Having explored these scenarios at region level, the next set of analyses illustrate country-specific debt simulations by using the country-specific data (Figure 6). Table 3 reports the countries for which debt would not stabilize in the medium term (based on the criterion that debt as share of GDP increases in the last year of the period) under each scenario. Under the baseline with 3 percent deficit but zero SFA, debt stabilizes for all countries in the region, except Mali. Under the same deficit target, when historical levels of SFA are assumed to persist for each country (i.e. status-quo), six member states appear to have non-stabilizing debt patterns, re-emphasizing the importance of addressing SFA. Switching to a hypothetical 4 percent deficit target by measuring the deficit accounting also for below-the-line and extra-budgetary operations (i.e., including SFA), three member states have non-stabilizing path, whereas all countries have such a non-stabilizing path if SFA persist under that 4 percent deficit target.

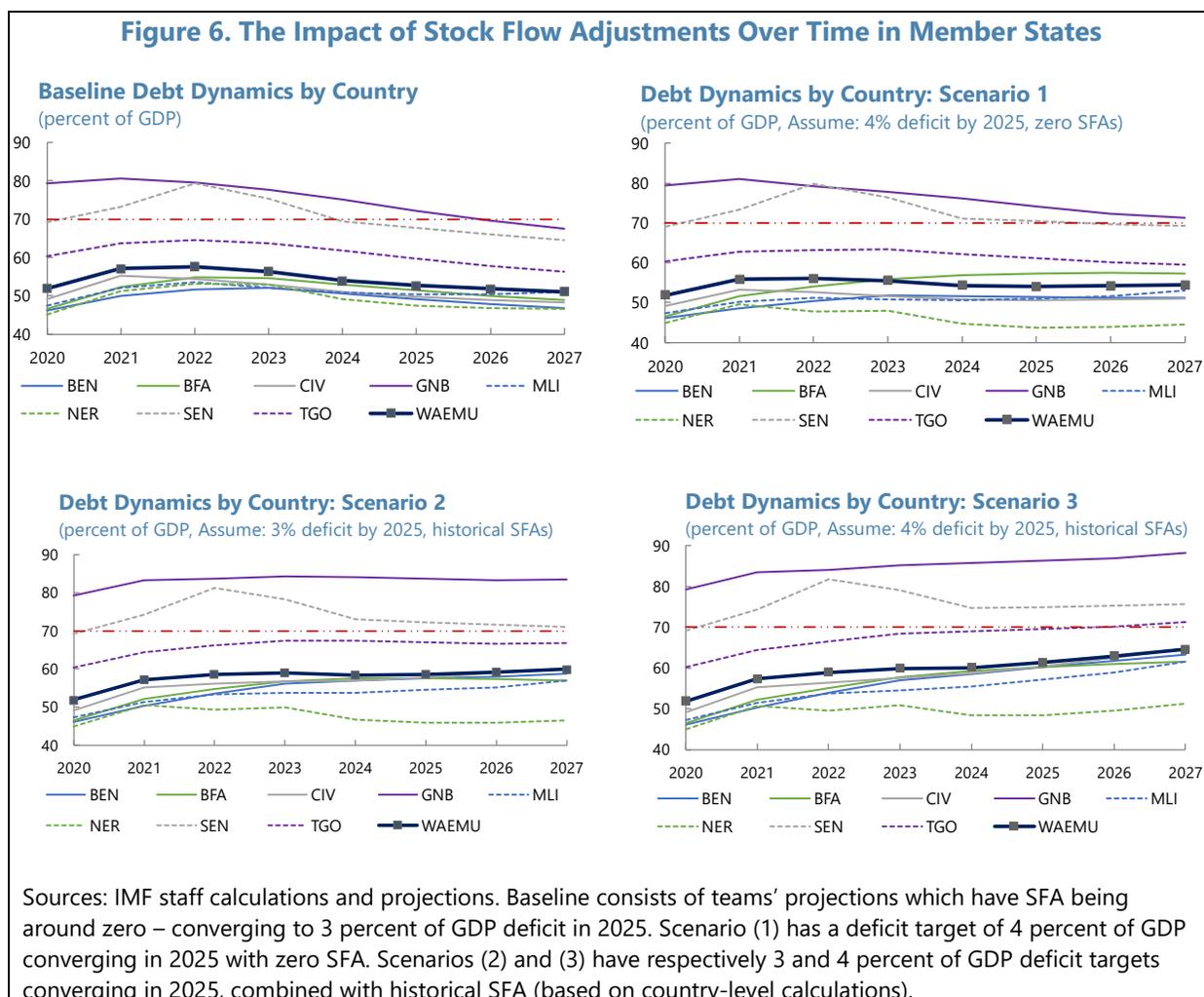


Table 3. WAEMU: Countries For Which Debt Does Not Stabilize Under Each Case

	Converge in 2025 to 3 Percent Deficit	Converge in 2025 to 4 Percent Deficit
Zero SFA	MLI	CIV, MLI, NER
Historical SFA	BEN, CIV, GNB, MLI, NER, TGO	BEN, BFA, CIV, GNB, MLI, NER, SEN, TGO

Sources: IMF staff calculations and projections. The countries are listed if their debt level is at an increasing path, and indeed increases in 2027 as share of GDP.

21. Heterogeneous SFA across countries also imply an unfair fiscal burden across countries from the previous fiscal rule. For some countries (with large historical SFA), addressing SFA will imply an effective tightening. Nevertheless, it would offer an essential way to deal with ongoing fiscal slippages which are delivering a non-stabilizing path for debt, thereby threatening debt sustainability. It is also important to note also that having the same above-the-line deficit target (e.g. 3 percent as historically) but persistently different SFA implies an unfair difference across countries in the effective fiscal constraints imposed by a common rule (i.e. an implicitly different overall impact on change in debt); and a persistent difference in the overall deficit and debt accumulation is not

fair within the context of a common rule. The most urgent step is to monitor the SFA, understand its key contributors, and take it into account when preparing the budget and planning the medium-term fiscal strategy. This would help include the effect of SFAs in the debt dynamics and avoid the risk that it would unduly affect the debt sustainability of the countries and the external viability of the union. Authorities should also step up their efforts to improve accounting practices, such as the adoption of the GFSM 2001/14 (rather than GFSM 1986, currently prevailing in most WAEMU countries), consistent institutional coverage in the transactions (i.e., the same institutional coverage above and below the line) and broader institutional coverage (i.e., beyond the budgetary central government, to include all government units). In principle, one possible (but difficult to implement) solution to address SFA is to measure the overall deficit for the purpose of the target from the flow of financing minus asset accumulation (if the overall deficit is instead measured from the change in stock of debt, then for the purpose of assessing compliance ex post, it would be essential to correct for the exchange rate and other valuation effects).⁵ At the same time, it is also important to note that international experience shows that there are risks associated with asset accumulation accounting in the fiscal framework: for example, governments can accumulate poor quality assets with on-lending operations to SOEs or state banks, or be exposed to implicit subsidies in SOEs (differences between lending and borrowing costs).

Reasons For the Discrepancy Between the Deficit and Change in Debt

22. In general, there are several possible reasons for the disconnect between the fiscal deficit and the change in debt, i.e. the presence of non-zero SFA. Those factors include asset valuation affects, differences in the institutional coverage, extra-budgetary and off-budget funds, change in financial assets (due to privatizations, contingent liability realizations/recognitions or accumulation/depletion of government deposits), arrears, carryover, differences in accounting between debt and deficit, financial instruments covered in the debt, and debt relief (See Annex I for a more detailed explanation). Overall, to the extent that those factors are sizable, the fiscal deficit may not be a fair representation of the size of the financing needs. In principle, debt may increase more (or less) than the fiscal deficit. In the case of WAEMU, a significant portion of SFA is likely to be a result of low capacity, or poor PFM. However, it is not possible to quantify which drivers are more important in general due to data limitation and lack of information, which makes it even harder for member states to contain SFA in the short term.⁶

23. Within the context of PFM, some recommendations are generally made to contain SFA. First, increase coverage of the measured fiscal deficit to better align the fiscal deficit measure with debt coverage, and improve the comprehensiveness and reliability of fiscal data. For example,

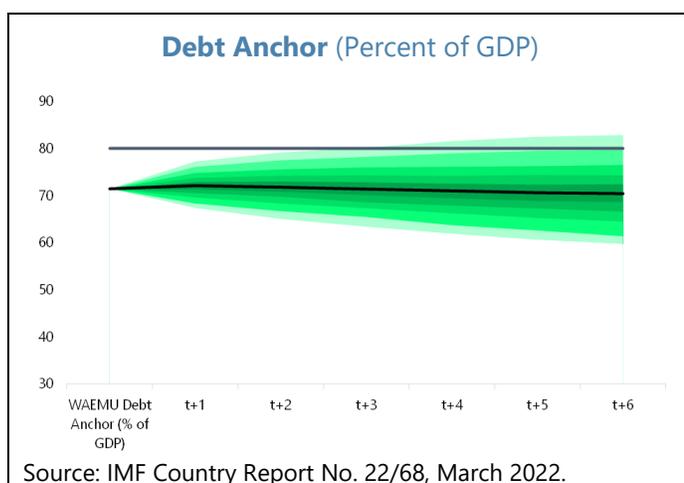
⁵ With respect to measurement, generally speaking, above-the-line is more accurate if government liabilities are not well accounted for, like in the presence of unaccounted arrears, while below-the-line would be more accurate if spending is not well recorded, like if spending from different public entities and agencies are not well tracked or their accounting centralized.

⁶ Given the important role played by SFA in WAEMU debt dynamics, a deeper analysis and quantification of the drivers of SFA in WAEMU remains important for future research, as more information and data become available. Going forward, as countries identify the exact sources of SFA, this would increase the feasibility of containing the effect of those individual drivers on debt.

many WAEMU fiscal deficits currently cover budgetary central government only, whereas debt data covers all public and publicly guaranteed debt.⁷ Second, limit off-budget operations, including quasi-fiscal operations carried out by state owned enterprises (SOEs).⁸ Relatedly, strengthen the oversight of SOEs to limit fiscal risks, such as contingent liabilities. Third, strengthen internal control over expenditures, and fourth, implement the accrual accounting system. Fifth, strictly prevent the accumulation of new expenditures arrears and prepare settlement plans to reduce old arrears. Lastly, improve the management of public-private partnerships to reduce fiscal risks. Addressing these PFM priorities are necessary conditions for a more credible medium term fiscal framework.

The Debt Ceiling Should Not be Increased

24. The existing debt ceiling envisages the role of a buffer, and uncertainty has been increasing in recent years. The authorities have mentioned their possible interest in raising the debt ceiling. However, if anything, the debt ceiling should be reduced or at most kept unchanged, for various reasons. First, the recent global shocks have pointed to heightened uncertainty and hence the need for larger buffers to cope with shocks. Second, the growing role played by the extra-budgetary and below-the-line operations has increased the expected uncertainty of debt creating flows, thus also suggesting the need for larger buffers. Third, market access at historically low rates may be changing, as global rates are increasing: even if the recent spike in spreads of mid-2022 were to be short-lived, overall interest rates for external borrowing may not come back quickly to the historically low levels of the past few years. Analyses by IMF staff indicate that the 70 percent of GDP debt ceiling seems appropriate, striking the right balance between growth and fiscal sustainability in the region (see the SIP associated with the 2021 WAEMU Regional Consultation). Hence, in light of the increasing uncertainty, it is not advisable to increase the debt ceiling. It is also worth noting that spending related to development and social objectives remains important, but also that domestic revenue mobilization—rather than debt—constitute a more sustainably fiscal strategy to attain those goals.



⁷ To help alleviate the coverage challenges, a WAEMU directive requires members to gradually update their fiscal statistics frameworks from the Government Finance Statistics Manual (GFSM) 1986 to GFSM 2014. GFSM 1986 is a framework for cash-based transactions and so is unable to account for broader debt accumulating factors. Sustained progress, with continued support from IMF technical assistance, will be important to achieving this policy objective.

⁸ When quasi-fiscal operations relate to payments based on exceptional expenditures procedures, the use of exceptional procedures should be limited to only eligible expenditures as defined in the PFM regulations, and the regularization of payments made through exceptional procedures should be accelerated.

C. Supporting Arrangements⁹

25. A well-designed correction mechanism is essential to contain debt, and it is fundamental irrespective of whether the level and definition of the deficit target is changed or not. As discussed, repeated deviations from the fiscal deficit target (and large SFA in the current system) may generate an excessively rapid increase in debt or even debt to surpass the ceiling. Coping with this issue generally requires that such deviations from the fiscal and/or debt targets should be compensated in future years, for example after they exceed a cumulative threshold (as in the debt brake model), unless there are extreme circumstances (as discussed in various review papers from the European Commission). Indeed, one may envisage a correction mechanism that changes the fiscal deficit target temporarily when some conditions are met, mainly to correct for previous deviations from the fiscal deficit rule, or for breaches in the debt ceiling (or in some cases also if debt increases too fast, for example if deficit is measured above-the-line and there are sizable SFA). The mechanism would also need to envisage the duration over which the adjustment is smoothed. A well-organized mechanism covering these dimensions would help the member states have some buffers for unexpected shocks in future.

26. Defining a common and reasonable feasible perimeter for the debt creating flows would enhance effectiveness of the fiscal rule and its evenhandedness. It is essential to establish a minimum form of harmonization of reporting of fiscal indicators across countries, i.e., a common perimeter for the debt creating flows, both for evenhandedness across countries and for the ability to identify the debt creating institutions. It is also important to create harmonization between the perimeter of the deficit and the debt, as difference between the perimeter of deficit and that of debt would create artificial SFA. This would require an assessment of what perimeter is deemed feasible, and a review of the role and responsibilities of debt agencies in the region—checking the perimeter of their operations—so as to assess which entity is benefitting from the below-the-line or extra-budgetary operations. If the revised rule were to envisage fiscal targets that account for extra-budgetary and below-the-line operations, one would need to make sure to also properly account for the debt creating flows from extra-budgetary units (which are in principle included in central government according to GFS). Ideally, authorities should commit to broaden the perimeter as feasible over time and move all operations through a Single Treasury account, which would significantly enhance transparency.

27. At present, fiscal deficit often has more limited coverage than public debt in the WAEMU member countries, affecting the SFA. The coverage of fiscal deficit is restricted to central government for all countries in the region, while public debt has often a broader perimeter. Overall, only two countries (BFA, MLI) have the same coverage for fiscal deficit and public debt (Table 4).

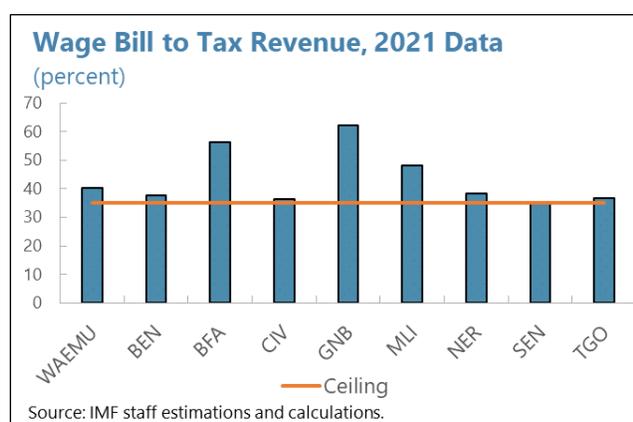
⁹ Supporting arrangements encompass all monitoring and enforcement mechanisms, including: design of escape clause; definition and computation of the rule (including the definition perimeter and how to measure the variable subject to the rule—deficit and debt); existence of a fiscal council to monitor the rule and offer advice in case of deviations; design of correction mechanism; design of the law supporting the rule; any possible sanctions (reputational and financial) in case the rule is breached.

Table 4. WAEMU: Coverage of Public Debt and Fiscal Deficit

Country	Debt	Deficit
BEN	Central government, guarantees, and central bank debt borrowed on behalf of the government	Central government
BFA	Central government	Central government
CIV	Central government, and SOEs	Central government
GNB	Central government, guarantees, and central bank debt borrowed on behalf of the government	Central government
MLI	Central government	Central government
NER	Central government, and guarantees	Central government
SEN	Central government, state and local governments, social security fund, guarantees, SOEs, and central bank debt borrowed on behalf of the government	Central government
TGO	Central government, SOEs, and guarantees provided by the central government	Central government

28. Escape clause. An escape clause is a provision that envisages under what conditions the authorities may not need to respect the standard targets of the fiscal rule, and can follow alternative adjustment paths. A well-designed “escape clause should have (i) a limited and clearly defined set of events triggering the operation of the clause, (ii) time limits on how long fiscal policy can deviate from the targets in the rule, and (iii) a requirement for fiscal policy to return to the targets after the operation of the escape clause is terminated and possibly offset the accumulated deviations.” (Eyraud et al (2018)). It is crucial for escape clauses to be well-communicated covering these aspects, and thereby providing feasible and realistic patterns on the adjustment path.

29. Operational targets. Operational targets can be very valuable for planning, budget, and communication purposes, and ultimately to help them reach the deficit target defined by the fiscal rule. These would be particularly helpful not only to manage the difficult political economy aspects of maintaining the main fiscal targets, but also in case a correction mechanism requires a tighter deficit target than normal (for example, by defining operational targets in terms of wage bill and thus, which aim to prevent that spending gets concentrated in long-term items which are difficult to adjust in the short term, such as the wage bill). One could envisage that different definitions of operational deficit targets could be associated with different levels of targets.



30. Other issues:

- **Recalibrating the rule at regular time intervals.** The deficit target may need to be revisited over time, especially if the expected growth path declines—for example due to income convergence with advanced economies—which would affect the debt sustainability calculations. A common time interval for recalibration is every 5 years, and general guidelines could be spelled out for what conditions (say growth, interest rates, debt ratios, among other indicators) may warrant a change in the rule.
- **Enhancing monitoring and accountability.** It would be essential to enhance monitoring and accountability. While establishing a full-fledged regional fiscal council may be too difficult at this stage, it may be possible to strengthen the role of the existing WAEMU commission, for example by envisaging the task to publish annually specific assessments related to how fiscal account respect the targets (see Basdevant and Zdzienicka (2016), WAEMU SIP (2019, 2021), Eyraud et al (2018) and David et al (2022)). An alternative approach could be to establish eight national fiscal councils in the WAEMU. In countries where resources are relatively limited, an option may be to associate these national councils with other existing independent institutions (David et al. (2022) IMF (2013)).
- **Establishing fiscal sharing mechanisms.** The absence of formal fiscal-sharing mechanisms makes it difficult for countries that face idiosyncratic shocks (e.g. the Ebola outbreak, or the security problems in Burkina Faso, Mali and Niger) to stabilize their economies without the support of other members (David et al (2022)). Potential approaches to build such mechanisms could include: (1) compensating temporary deviations from the deficit rules in the member states experiencing shocks with additional fiscal efforts in countries that are not affected; (2) establishing a regional stabilization fund with the annual contributions from all members in order to provide temporary transfers to countries affected by adverse macroeconomic shocks; or (3) pooling risks through a targeted common budget, which, for instance, could be utilized for security or health emergency allocations.
- **Building a communication strategy.** A successful communication strategy would help the WAEMU preserve credibility and ensure transparency of the reintroduced fiscal rule. The strategy should rely on clear and simple messages aimed at informing the public and the market participants about the assumptions behind fiscal projections and related risks, as well as providing an ex-post assessment of the fiscal position.¹⁰ A successful communication becomes even more crucial in the periods of the activation of escape clauses. In such cases, it is important to explain the implications of the activation, the expected duration and size of the deviation, as well as the adjustment path reverting to the rule. Some elements of good communication include to publish: (1) a credible medium-term fiscal strategy aimed at anchoring expectations; (2) regular reports by the government on the implemented measures (including the associated fiscal costs, and risks to the budget); and (3) reports by independent agencies (such as fiscal

¹⁰ See Hitaj (2016) for a discussion on the link between fiscal discipline, the role of WAEMU regional surveillance communication, and market responses.

council, or an audit agency) assessing the conformity of fiscal policy to the fiscal rule (IMF (2020), and David et al (2022).

D. Conclusions

31. This paper aims to provide a broad fiscal strategy going forward. Overall, fiscal discipline supported by adequate frameworks and institutions will be instrumental to ensure debt sustainability and external viability, as well as containing inflationary pressures. The paper highlights the substantial increase in debt over the past decade, the significant role of extra-budgetary and below-the-line operations, and the need to revamp the fiscal rule with several improvements.

32. First, the strategy needs to envisage a change in the fiscal rule that includes a correction mechanism when debt exceeds certain thresholds or increases too fast.

33. Second, extra-budgetary and below-the-line operations need to be addressed. WAEMU countries' debt has been increasing well beyond what was driven by the fiscal deficit, due to large extra-budgetary and below-the-line operations, and simulations show that maintaining the historical levels of SFA would not allow debt to be on a sustainable path, nor to rebuild buffers. Hence a proper discussion of the appropriate level of the deficit and debt accumulation targets has to address extra-budgetary and below-the-line operations.

34. Third, various supporting arrangements should be included in the revamped fiscal rule, including an escape clause, mechanisms for enforcement and discipline, and operational frameworks based on intermediate and complementary targets. In particular, an escape clause would help ensure more predictability for the circumstances under which the target may need to be temporarily altered and avoid the uncertainty about when the rule will resume.

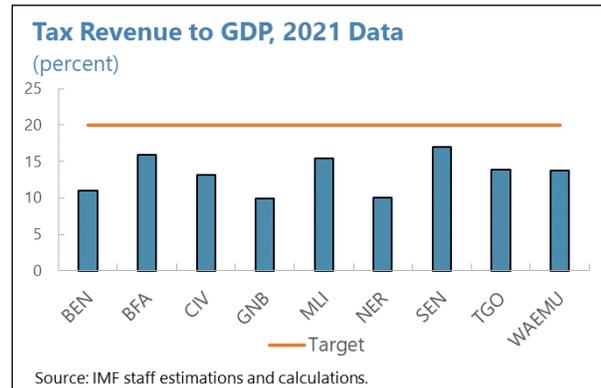
35. Fourth, the fiscal strategy should also envisage that any delay of the current expected path for fiscal consolidation should be grounded on solid justifications and financing prospects. The delay should be considered in the presence of exceptional needs for expenditure in response to future shocks, additional security and social challenges, or excessive strain on the economy from a large and fast consolidation. Such delays should also be supported by reasonable expectations that the required additional financing would be available at terms in line with debt sustainability.

36. Finally, domestic revenue mobilization needs to be part of the broad fiscal strategy.

Indeed, domestic revenue mobilization is a crucial part of the ability to service debt, which is what ultimately makes debt sustainable.

While debt has helped WAEMU countries to finance development and social spending, and more recently cope with major global shocks, going forward this trend is not sustainable and domestic revenue mobilization should increasingly become the key tool to finance development and social needs. Possible measures on revenue administration and tax

policy reforms should be taking, including broadening tax bases and simplifying the tax system, and strengthening tax administration and compliance. In this regard, the threshold on the tax revenue to GDP ratio should be put more emphasis.



37. While this note provides a broad perspective, Technical Assistance could offer a more detailed elaboration of specific needs and aspects, including necessary PFM reforms to contain SFA.

Annex I. Reasons for Discrepancies Between Change in Debt and Fiscal Deficit

1. **There are several possible reasons for the disconnect between fiscal balance and change in debt**—a phenomenon labeled as “stock flow adjustments”. These debt-creating factors include:

- **Extra-budgetary and off-budget funds.** Borrowing may take place outside the central government budget (sometimes due to emergency spending in the context of the Covid-19 pandemic). This would drive a positive SFA.
- **Difference in institutional coverage** between fiscal balance and debt. For example, deficits are measured at the general government level, whereas the debt’s coverage is the wider public sector (in this case, profit-losing SOEs could drive a high SFA residual).
- **Asset valuation effects.** For instance, persistent changes in the real exchange rate can create a disconnect between external borrowing and change in the external debt stock measured in local currency (the effect should cancel out over time if RER were to mean revert). Globally and persistently declining interest rates can increase debt valuation over time and explain positive SFA residual on average.
- **Change in financial assets due to privatizations, contingent liability realizations/recognitions** (e.g., bank or SOE recapitalization) or **accumulation/depletion of government deposits.** These should drive a positive SFA residual if the country accumulates assets, and a negative residual when the country sells assets, like in the case of a privatization. However, some financial transactions of government and SOEs needs to be recorded also above-the-line (when these are transfers to SOE, unlike acquisitions of SOE shares which should be below-the-line), in which case they would not affect SFA residual.
- **Arrears.** In principle, there should be full consistency between (i) cash deficit and change in commercial debt, and (ii) accrual deficit and change in total debt including arrears stock, according to GFS. But if cash and accrual accounting are used simultaneously for different transactions, this could create a disconnect between debt and deficit—for instance if the cash change in commercial debt is compared to the deficit measured in accrual terms. These should not affect the average SFA residual over many years (unless increasing), as they should be mainly offset the following year.
- **Carryover.** Some expenditure committed in one year may be spent in the following year. As a result, the fiscal deficit is recorded in t but debt increases in $t+1$. If the same pattern repeats over time, also these should not affect the average SFA residual over many years (unless increasing), as they should be mainly offset the following year.
- **Government guarantees.** These are sometimes included in debt in IMF programs, but they have no equivalent in the deficit (until they are called and generate a financing need).¹ When

¹ Note that, under GFS, guarantees should not be included in debt. But this is a practice in IMF programs.

guarantees are created, they would drive a positive SFA residual, but not when the stock of guarantees remains constant.

- **Differences in accounting between debt and deficit.** The “cash deficit” measures cash flows and the “accrual deficit” measures accrued flows, but debt data could be compiled using a basis of valuation different from cash flows or accrual transactions.² These differences should not affect the average SFA residual over many years, unless increasing, as they should be mainly offset the following year (or years, in case they take a few years to self-correct).
- **Financial instruments covered in the debt.** In the EU, for example, the definition of debt used for the Maastricht criteria includes only loans, debt securities, and currency and deposits, while the fiscal deficit may have been financed from other financial instruments as well, most notably other accounts payable. This particular example would offer a negative contribution to the SFA residual.
- **Debt relief.** A debt restructuring will disconnect the evolution of debt from the deficit, and would offer a negative contribution to the SFA residual.

² For example, in the EU, Maastricht debt is reported at nominal value, which is also equal to face value. This valuation may differ from the flows, because some revaluations such as those resulting from exchange rate changes are not taken into consideration in the transactions. However, flows such as those related to premiums and discounts are not included in the measurement of debt measured at cash flow value.

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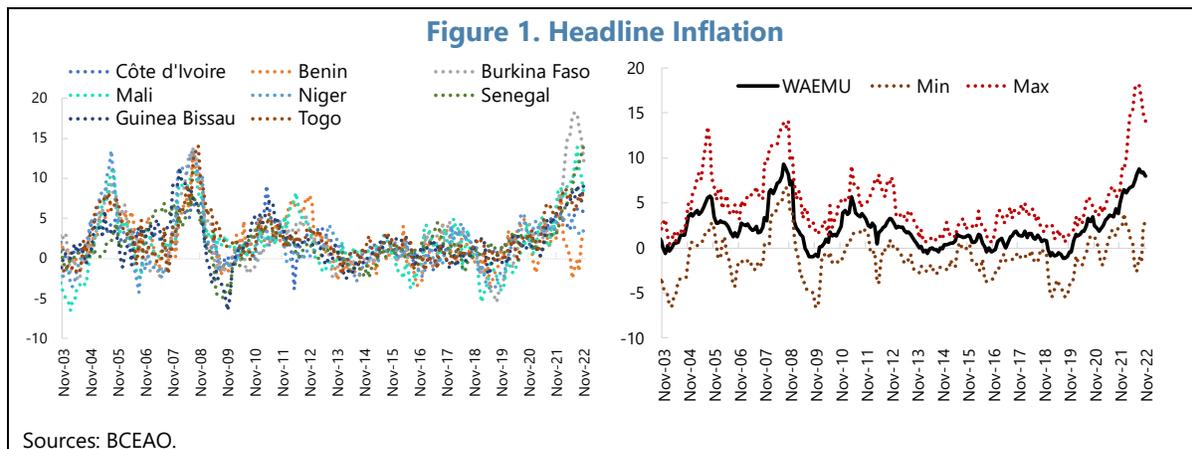
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INFLATION DYNAMICS IN THE WAEMU¹

This paper analyzes recent inflation developments in the WAEMU. As in all inflation spikes in the past two decades, food is the main driver of inflation. The contribution from energy prices is also increasing, while inflation contagion effects are still limited to a few sectors. The share of professionals that believe that inflation will continue above the target within the one-year horizon is at high levels compared to 2021. Based on projections from two models, the chapter also evaluates the appropriate monetary policy responses to the recent inflationary pressures. The results suggest that inflation is expected to converge to its target range within 24 months given the reduction of exogenous shocks weighing-in on food and energy prices, the exhaustion of base effects as well as a reduction in supply and demand imbalances. However, numerous external and internal factors affect inflation prospects and should be carefully monitored, given the pronounced uncertainty surrounding geopolitical and economic developments, and further monetary policy tighten would be necessary unless downside risks to forecasts for baseline inflation and external buffers improve.

A. Recent Developments in the WAEMU Inflation

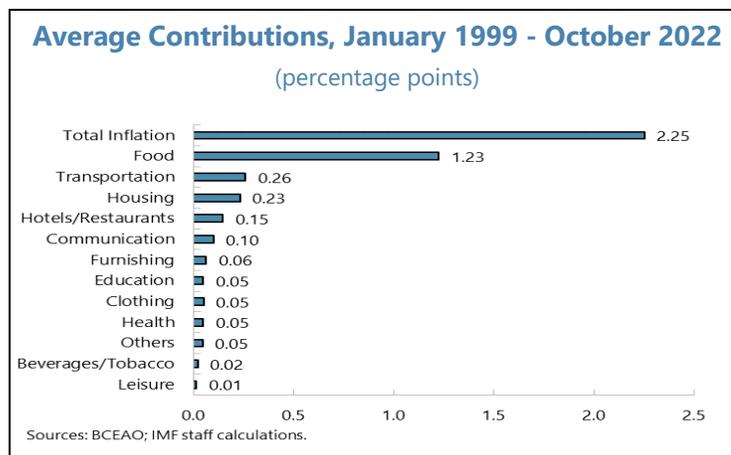
1. Headline inflation has been steadily increasing and has been above the upper limit of the central bank's target range (3 percent) since April 2021. After recording negative rates throughout 2019, headline inflation started to increase sharply at the beginning of 2020. Headline inflation peaked in August at 8.8 percent before slowing to 8.0 percent in November 2022. While the inflation rates of the WAEMU countries have historically been reasonably homogeneous (see Figure 1), a more heterogenous pattern has recently emerged: in November 2022, the inflation rate in Burkina Faso was 12.2 percent, while in Benin it was 3.2 percent.²



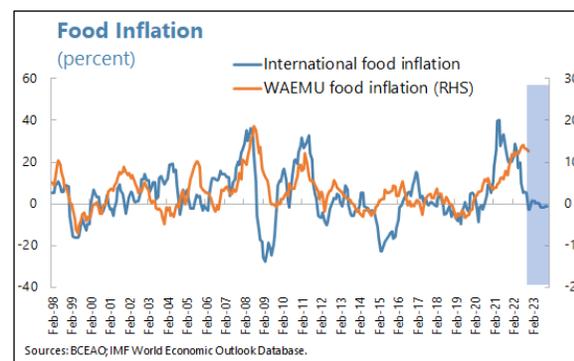
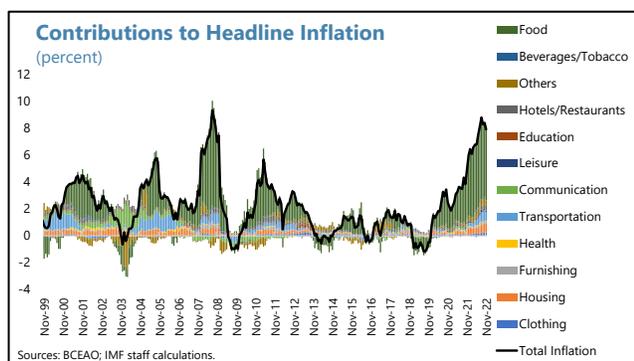
¹ Prepared by Cecilia Melo Fernandes (MCM).

² Recent inflation dynamics reflect several Benin-specific factors—a favorable 2021/2022 harvest season; the authorities' measures to limit the impact of rising international prices and curb the upward trend in food insecurity; and stronger custom's border control to limit smuggling of staple food and subsidized fertilizers.

2. To place the analysis in context, we note that historically food has always been the component with the largest contribution to headline inflation, followed by energy and transportation. Between January 1999 and October 2022, food contributions were on average 1.2 percentage points, against a 2.3 percent average inflation rate in this period (see text Figure). After food, housing and transport are the components that traditionally provide the largest contributions to inflation. This is not surprising as in the WAEMU classification these categories include several items related to energy, such as electricity, gas, fuel, etc. In the past two decades, housing and transport contributed jointly with approximately 0.5 percentage points to headline inflation, while the contributions from the remaining nine components were 0.6 percentage points. Food, housing, and transport are the components with largest weight in the WAEMU basket consumption,³ which also explains their substantial relative contributions.

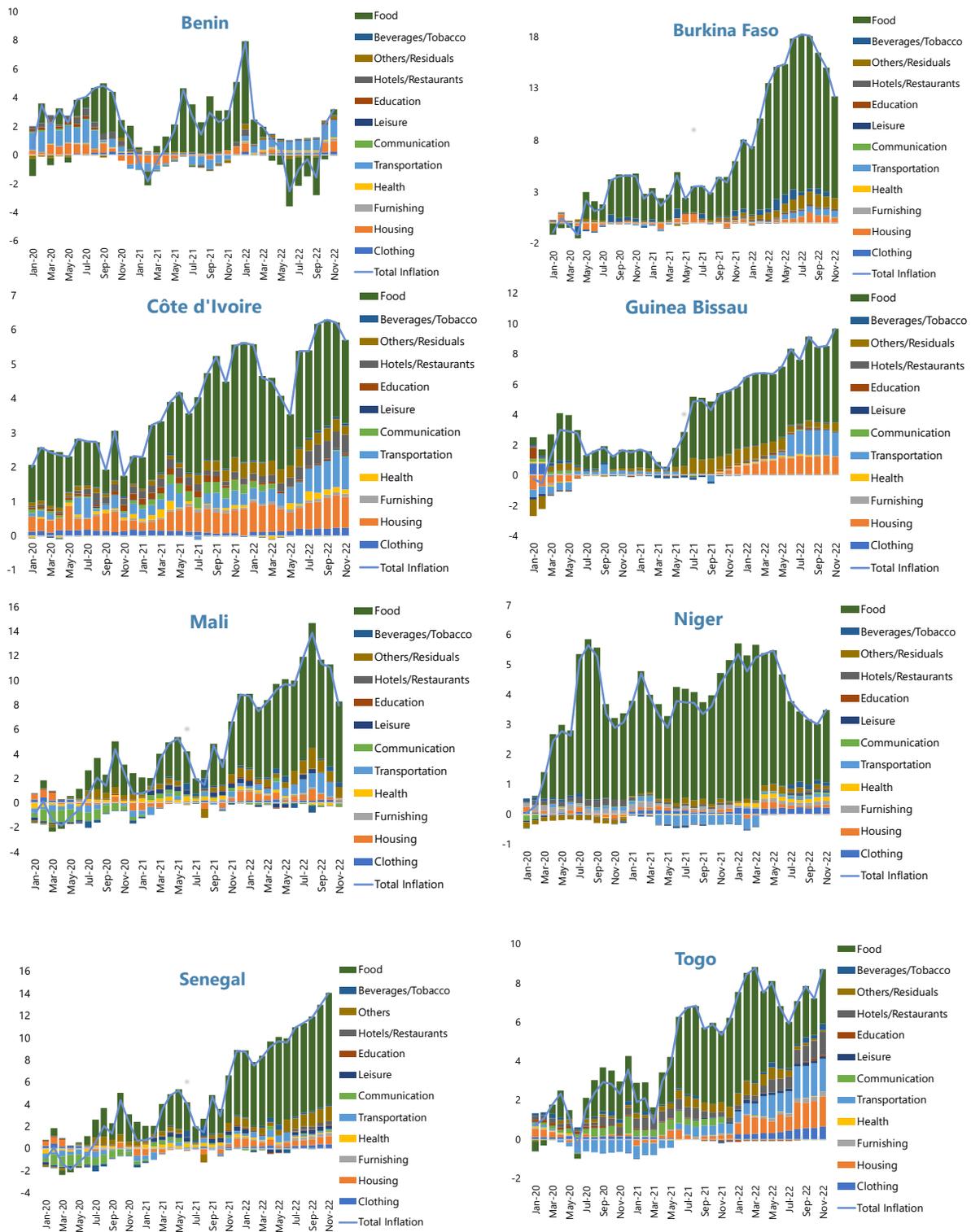


3. Domestic food prices have generally driven most of the volatility of inflation, being the main culprit for the large spikes in inflation and its quick reversal. The period associated with the global financial crisis is particularly interesting, as inflation went from about 2 percent (the target) to over 10 percent and back to the target in a time span of about two years. This fluctuation was mainly driven by food prices: when excluding food items, inflation remained close to target (see text Figure below). It is also particularly valuable to notice that domestic food prices tend to follow quite closely international prices, which makes the region particularly vulnerable to global food price shocks. It is quite important to notice that international food price inflation is expected to decline significantly (based on the WEO forecasts), so that it is conceivable to expect—as in the past—a quick reversal of regional food inflation.



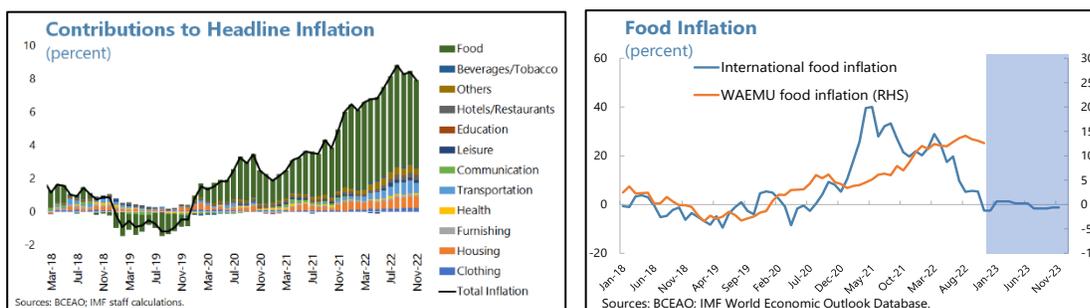
³ Food has a weight of 42 percent in the consumption basket in the WAEMU, while energy items are included in housing (11 percent weight) and transportation (9 percent weight).

Figure 2. Contributions to Headline Inflation

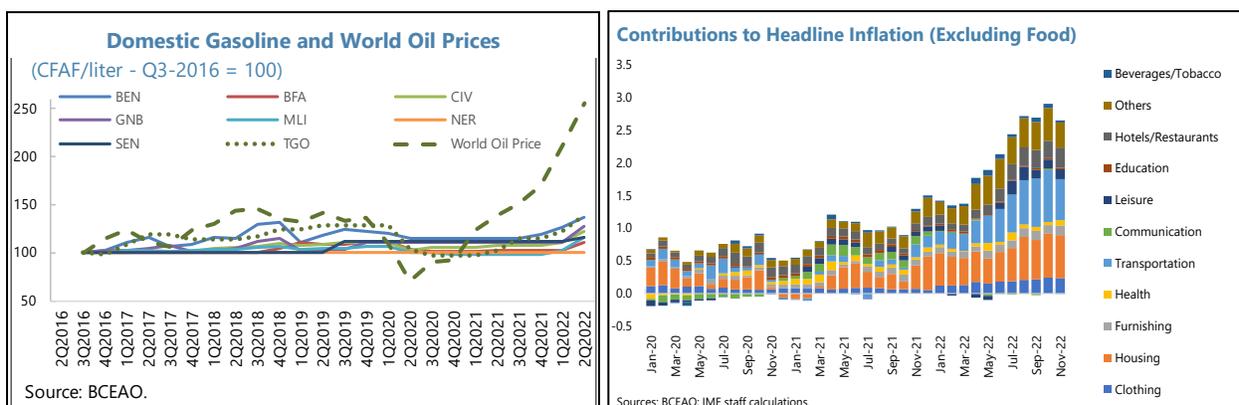


Sources: BCEAO; IMF staff calculations.

4. Consistently with historical patterns, the recent surge in inflation is particularly driven by food (and to a lesser extent by energy) prices, with levels similar to the ones in the third quarter of 2008, when inflation reached a record high in the region. The Figure below, which is a short-term version of the Figure above, shows more clearly that, in November 2022, food, housing and transportation contributed respectively with 5.3, 0.7 and 0.6 percentage points to inflation, against 7.4, 0.5 and 0.75 percentage points in the historical peak of August 2008, and compared to 1.2, 0.2, and 0.3 percentage points in the historical average. Food contributions are particularly relevant in Burkina Faso, while Togo and Ivory Coast have the most diversified contributions across the inflation components; this is in part a reflection of the fact that inflation is mainly a food phenomenon also at the country level, hence countries with higher inflation tend to have a large contribution from food prices (see Figure 2).

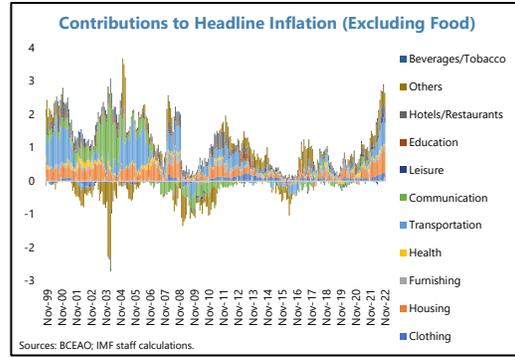


5. Non-food inflation is rising but remains low. Non-food inflation rarely exceeded the target over the past two decades. Over the past year and a half, it increased from about half a percent to about 2.7 percent, mainly on account of three categories. Two of them, housing and transportation, have been driven mainly by higher energy prices, as mentioned earlier. In this respect, it is interesting to notice that the contribution to inflation from energy prices has remain muted despite large increase in the international price of oil; this is mainly because of domestic policies containing those effects in most countries (text Figure). The third category is "other" items, which may be reflecting some broad second round effect coming from services (see left Figure below for a long-term horizon and right Figure below for the recent period).

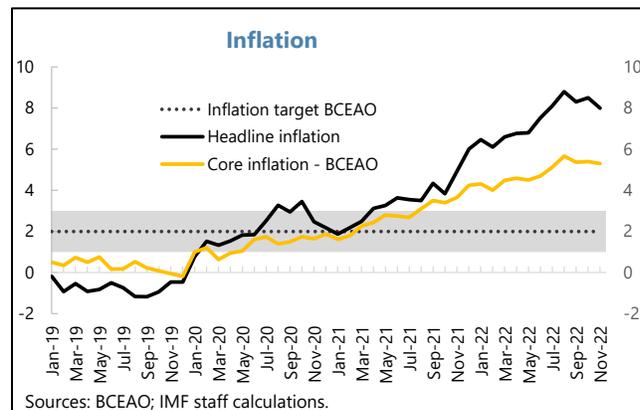
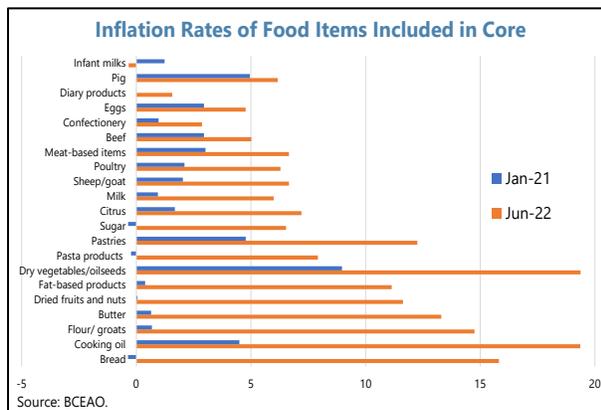


6. Recently, cereals have been the main driver of the surge in food inflation in most countries.

Several constraints on local production given climate shocks, security, and health crises aggravated a situation that has been already challenging due to external global shocks on food prices. Besides the strong role of non-transformed cereals in terms of contributions to food inflation, the surge in food prices is also driven by the prices of oils, sugar, tubers, and meat in most countries of the Union. The role of cereals in driving food inflation is particularly important in Burkina Faso, while Benin and Ivory Coast have more diversified sources of contributions.



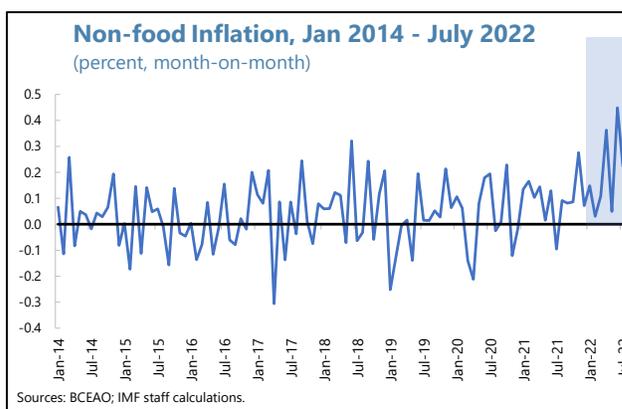
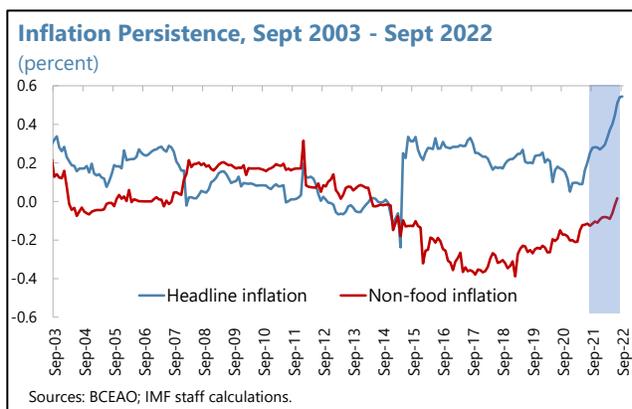
7. The official measure of core inflation is affected by food prices, and hence—not surprisingly—has been rising substantially, but may not adequately represent underlying inflation. Official core inflation excludes “fresh” food and energy prices from headline inflation, but still retains several non-perishable and other food items.⁴ Overall, contribution to headline inflation from food inflation suffered an increase from 1.4 percent in January 2021 to 5.3 percent in November 2022. In the period between January 2021 and June 2022, the text Figure shows that the most exorbitant increases were from bread (-0.4 to 15.9 percent), cooking oil (4.5 to 19.4 percent), and flour and groats (from 0.7 to 14.8 percent). The recent developments in food items included in the official core measure largely explains its steady rise, since it breached the upper limit of the central bank’s upper target in August 2021, reaching 5.3 percent in November 2022. However, the numerous components of food prices in official core inflation weaken its adequacy in capturing the underlying trend in inflation.



8. Inflation persistence has been steeply rising in tandem with headline inflation since January 2021, and if continues it may pose challenges for monetary policy. The persistence

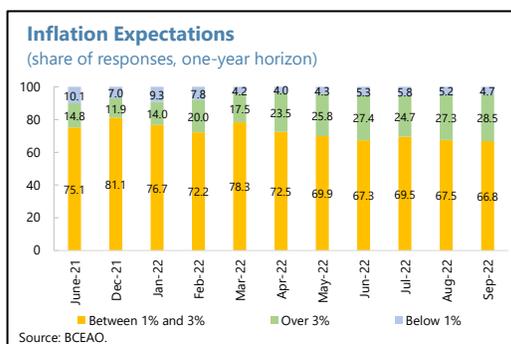
⁴ Very detailed breakdown of sectoral inflation data is not available for recent months.

index⁵ has increased from 0.10 in January 2021 to 0.55 in September 2022, considerably above the historical average of 0.2 (see Figure below). The higher the inflation persistence, the more challenging it is for the central bank to control inflation, given the stronger influence from past inflation on expectations, on price formation, and hence on current and future inflation. As clearly a large part of inflation today and of its persistence is due to rapidly rising food inflation, it is useful to assess also the persistence of non-food inflation. The negative persistence of non-food inflation in the past few years indicates that it was not persistent: an upward movement in the monthly non-food inflation was followed by a downward movement, such that the mean of month-over-month non-food inflation was around zero (as for example since June 2014, see Figure below). However, that pattern has recently changed, with non-food inflation averaging a positive number, and its persistence has moved towards zero from being negative.



9. Inflation expectations constitute an important decision factor for the BCEAO to increase the policy rates, and the share of professionals that believe that inflation will continue above the target has been rising at high levels compared to 2021 (see text Figure).

According to a recent BCEAO survey of inflation expectations, the share of companies' leaders that reported inflation expectations above 3 percent in one year horizon increased from 11.9 percent in December 2021 to 28.5 percent in September 2022, while the share of responses with expectations for one year inflation between 1 percent and 3 percent decreased from 81.1 percent to 66.8 percent.



B. Sectoral Dynamics and Inflation Contagion

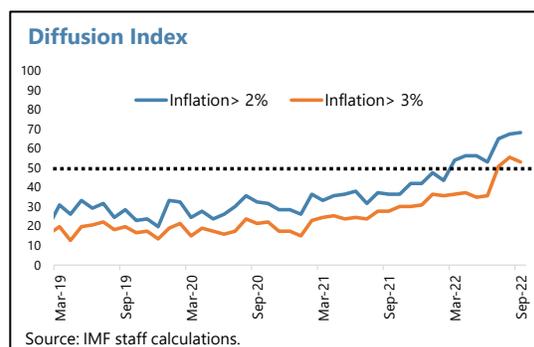
10. The high degree of informality in the WAEMU economy and the scarcity of data on

⁵ The persistence index is obtained by estimating an AR(1) process, and averaging the estimated coefficient with a 48-months rolling window. The results—in particular for the period of interest starting in January 2021—are robust for different specifications using other AR processes.

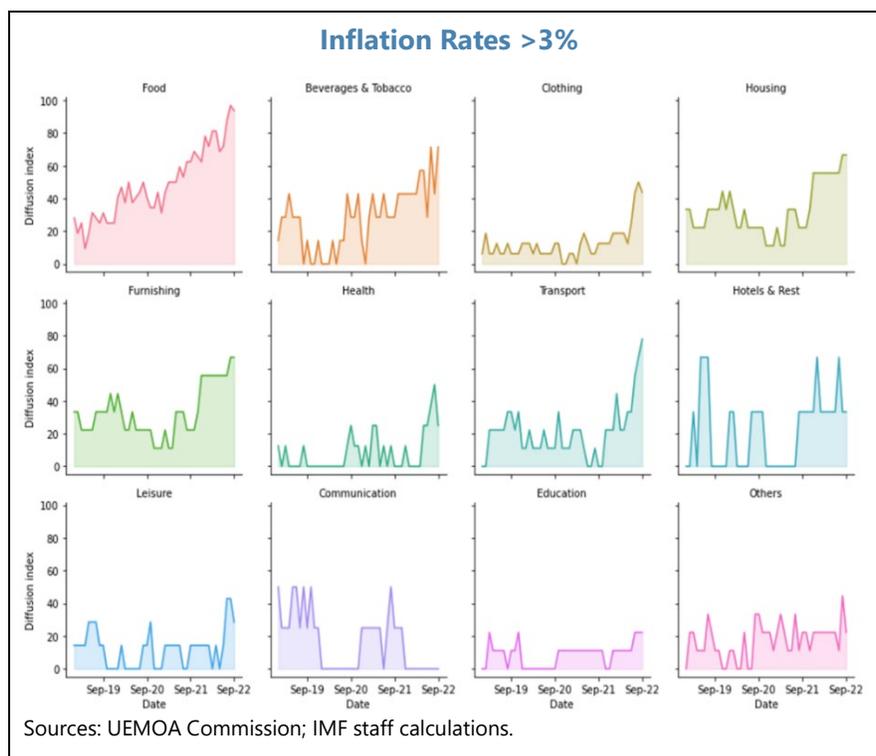
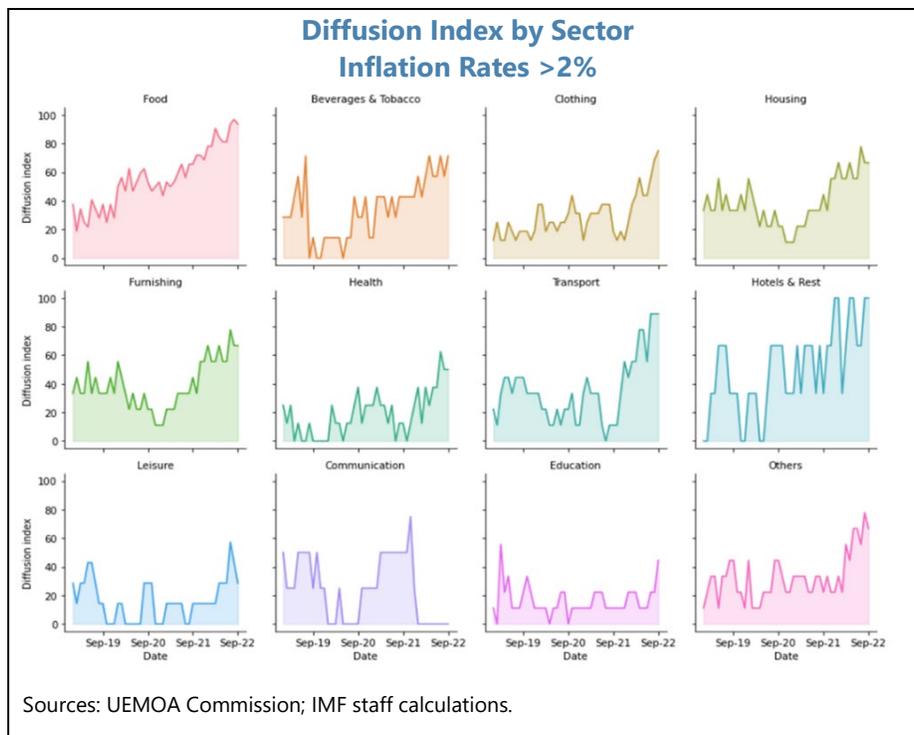
labor market hinders a broad understanding of potential second-round effects. Unfortunately, wage measures are not widely available in a time fashion. The scarce availability of data on labor market in the WAEMU and the high degree of informality prevent deep analyses and an accurate assessment of potential second-rounds mechanisms, the pass-through effects of inflation on wage and price setting, and the wage-price spiral process.

11. Despite the methodological limitations in estimating second-round effects, some analytical tools—such as the diffusion index—can help to analyze potential inflation contagion across sectors in the WAEMU.

The diffusion index—i.e., the share of items with inflation above a certain threshold—is a suitable proxy to monitor potential contagion dynamics of inflation dispersion, since it assesses how widespread inflation has become across the 126 items included in headline inflation. The share of items with inflation rates above 2 percent (the target) surpassed 50 percent in March 2022 and reached 68 percent in September 2022—after having remained at relatively stable levels at around 30 percent since 2019—indicating that now a slight majority of the items have prices rising at rates above the BCEAO target level (see text Figure). The diffusion index based on an inflation threshold of 3 percent (the upper range of the target band) has been also rising since 2021, but and it is now above 50 percent.

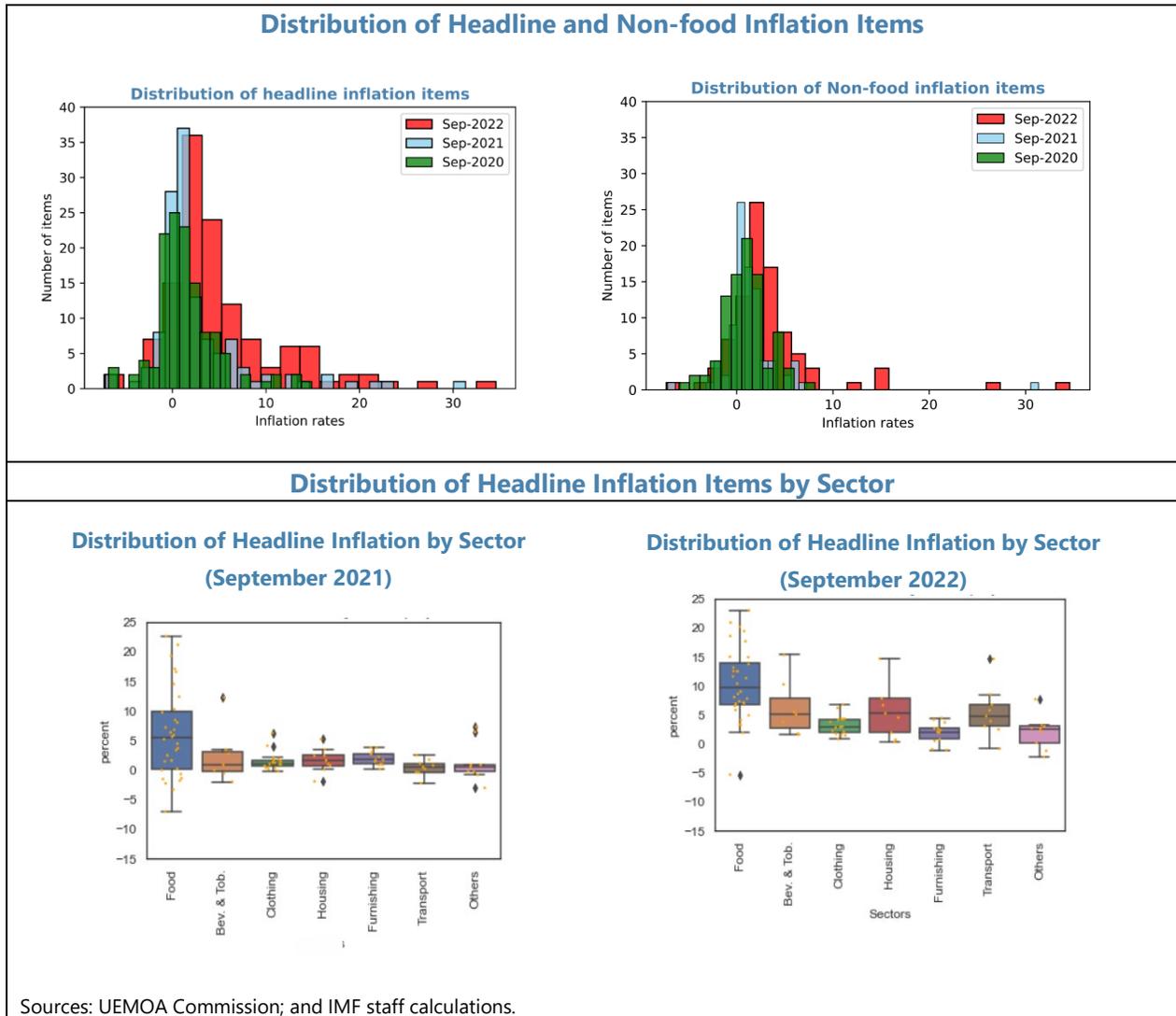


12. The breakdown of the diffusion index by sector indicates that some inflation contagion effects outside of food and energy have emerged, but remain still limited to a few other sectors. The diffusion index with inflation rates above 2 percent shows that—excluding food, housing and transport—the sectors with the highest increase in prices are beverages & tobacco, clothing, furnishing, and “others” (containing several services). And this potential pass-through from higher food or energy prices onto the price of other products and services is rising. The diffusion index remains contained in other sectors, such as leisure, education, health, and communication. When the threshold of the diffusion index is increased to inflation rates above 3 percent, the evidence of contagion prevails only in beverages & tobacco as well as furnishing (hotels and restaurants is a very volatile category, which has only 3 items and is strongly related to food and energy). Hence these contagion effects are not strong yet.



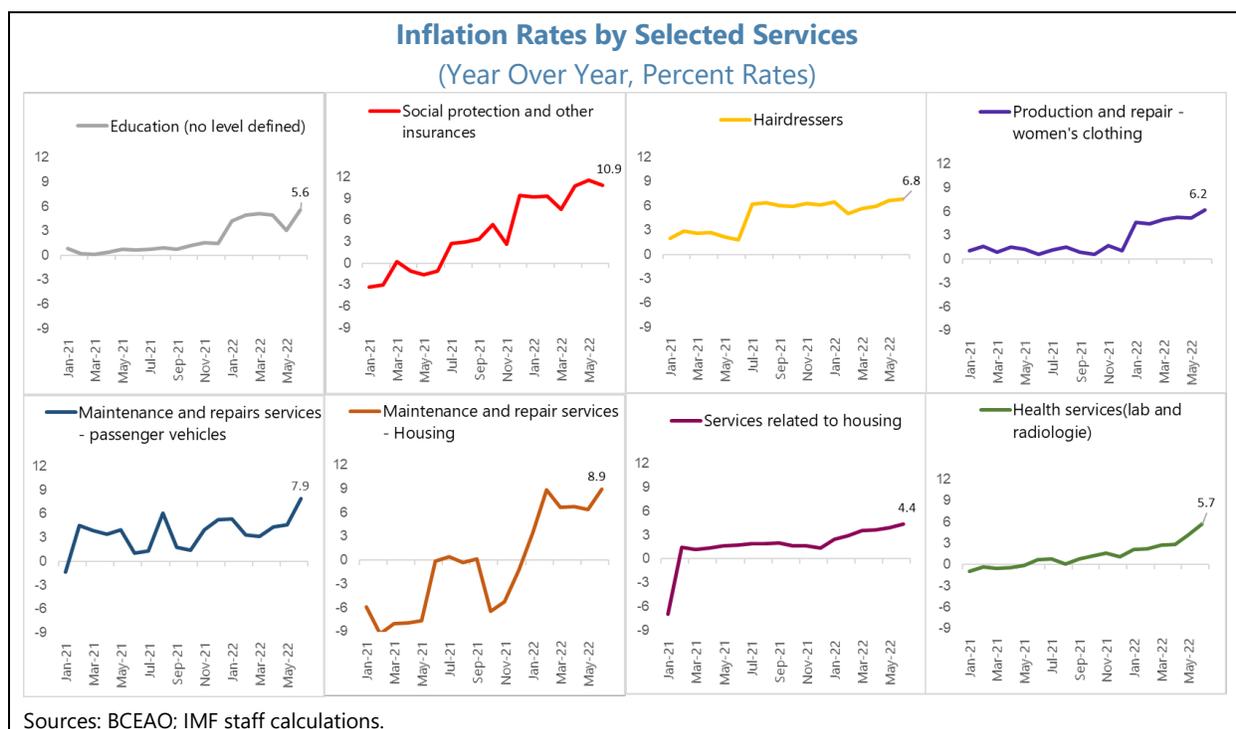
13. Since 2020, the dispersion of inflation rates across items within the WAEMU consumption basket has increased, although again mainly for those related to food and energy. The Figure below shows the distribution of inflation across the consumption basket items in the WAEMU, via the histogram for all components of headline inflation, for three consecutive years

since September 2020. The Figure shows that not only the mean had become higher (i.e. higher inflation), but the distribution has become wider while shifting to the right (hence more dispersion particularly towards higher inflation). However, these movements are more nuanced when considering only the components excluding food items. The Figure confirms that the major upsurges both in the mean and price dispersion have been on food, housing, and transport, while the changes in prices in other categories were more contained.



14. The highest price increases excluding the items related to food and energy come from services, which is an alarming signal of potential second round effects. The Figure below shows the items that suffered major increases in prices, outside food and energy. They consist of services such as hairdresser, insurance, maintenance and repair for housing, clothing, among others. A common feature across all these services is that one year earlier they were either under deflation or their price growth rates were very close to 0 percent—while headline inflation was already close to 4 percent. The price acceleration could hence also be explained by supply and demand imbalances

followed by the economic rebound after the pandemic. Going forward, if the price surge of such items remains sustained, it could be a strong indication of second-round effects.



C. Going Forward: Inflation Forecasts and Monetary Policy Implications

15. Robust inflation forecasts are of fundamental importance for the monetary policy decision-making process of the BCEAO. Indeed, the BCEAO adopts a forward-looking decision-making approach, targeting a 2 percent year-over-year inflation rate (with a symmetrical ceiling and floor of 1 percentage point) within a horizon of 24 months. In order to derive inflation projections, we rely on methodologies that evaluate the impact of exogenous factors, such as the international prices of food and energy (as forecasted in the IMF WEO) over the next two years.

16. This section describes two models with different degrees of complexity and forecast horizons, which can offer medium-term inflation forecasts. These models are: (i) a Seasonal Auto-Regressive Integrated Moving Average model, with exogenous factors (SARIMAX) and the (ii) African Module of the Flexible System of Global Models (AFRMOD-FSGM) based on Andrieu et al. (2015) applied to the WAEMU.⁶

17. The SARIMAX model consists of a Seasonal Auto-Regressive Integrated Moving Average model including exogenous factors. This is an econometric exercise where the independent variable is the WAEMU headline inflation, while the exogenous variables are

⁶ Andrieu, M., Patrick Blagrove, Pedro Espallat, Keiko Honjo, Benjamin Hunt, Mikko Kortelainen, Rene Lalonde, Douglas Laxton, Eleonora Mavroeidi, Dirk Muir, Susana Mursula, and Stephen Snudden, 2015, "Flexible System of Global Models – FSGM," IMF WP/15/64. The case for the WAEMU was prepared by Keiko Honjo (RES).

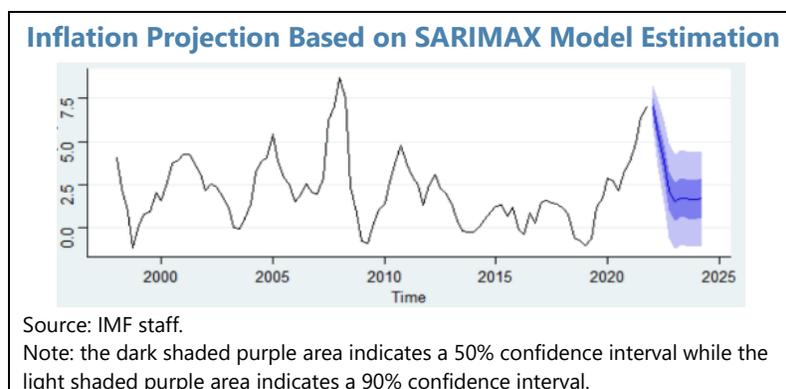
international fuel and foods prices as well as the nominal effective exchange rate, based on the IMF WEO database. The estimation period employs year-over-year quarterly frequency data covering the period between 1997Q1 and 2022Q2. The forecast period starts in 2022Q3 and ends in 2024Q4. The recent depreciation of the nominal effective exchange rate is assumed to abate so the yearly change converges to zero during the forecast period. As this exercise is based on an econometric estimation, it cannot explore alternative monetary policy responses, and it would capture the monetary policy response only to the extent this is reflected in the average historical behavior (and thus in the estimated coefficients).

18. The AFRMOD-FSGM is a multi-region and forward-looking model of the global economy combining both micro-founded and reduced-form formulations of economic sectors with unique parameterization tailored for the WAEMU.⁷ The objective of this exercise is to obtain a simulation based on the AFRMOD-FSGM theoretical model. In the model, real GDP is determined in the short run by the sum of its demand components, and in the long run by the level of potential output. Fiscal policy stabilizes debt as a percent of GDP in the long-run and responds to changes in the output gap in the short-term. Monetary policy is represented by an interest rate reaction function where the standard form is an inflation-forecast based rule. Given the presence of capital controls which allow for some monetary policy independence, and the limited ability of the model to fully reflect this institutional setup, two different exchange rate regime scenarios are presented: (i) a fixed exchange rate with a small addition of country risk premium and (ii) a managed float. Finally, there are three commodities in the model—oil, metals, and food. The model has annual frequency and goods prices are sticky.

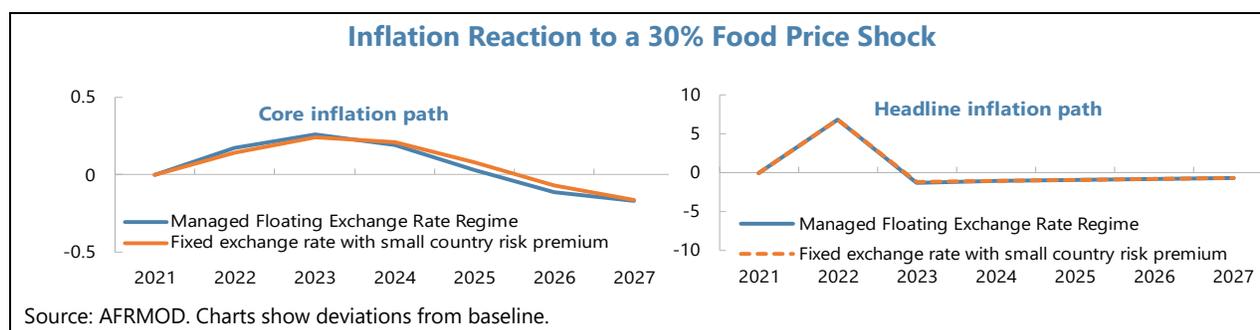
Results

19. The SARIMAX model shows that inflation is expected to decline towards the target within 24 months. The estimation suggests that inflation is expected to decrease to 1¾ percent by 2024Q4, based on the WEO GAS projections of lower fuel and food prices in the near future (as a result of the global monetary policy tightening and the associated economic slowdown), as well as minimal pressure from exchange rate movements.

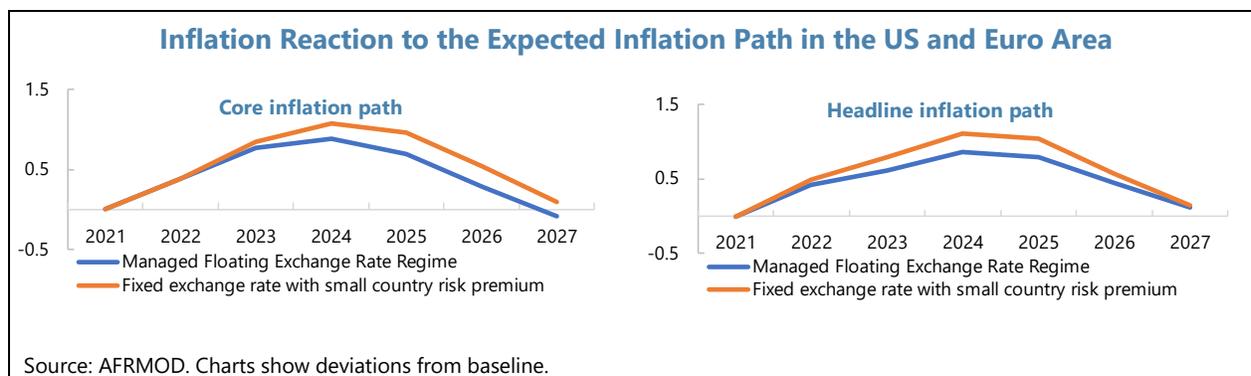
⁷ For a recent theoretical model adapted to the WAEMU region please see De Resende, C., Fall, A. and Sy, D. (2022). “A Quarterly Projection Model for the WAEMU”, IMF Working Paper No.2022/215. The QPM-WAEMU model incorporates aspects specific to the WAEMU zone, such as the fixed exchange rate regime, the presence of controls of capital flows, and—consequently—the BCEAO’s limited ability to influence the money market of the WAEMU. It also includes the relevance of foreign exchange reserves for monetary policy decisions through the incorporation in the monetary policy rule of the risk premium as a function of reserves.



20. The estimations from AFRMOD for the impact of two different shocks on WAEMU inflation also show evidence that inflation is expected to decline in the medium-term. The first shock consists of an increase in global food prices of 30 percent in 2022 (the model is calibrated on annual data). In this case, there is a short-lived reaction of headline inflation in WAEMU, which increases by 5 percentage points in 2022, fading away in the subsequent years. The effect on traditional core inflation (excluding food and energy) is negligible. The second shock consists of increases in the Euro area and US inflation path.^{8[8]} Following this shock, headline inflation gradually increases by approximately 1 percentage point in WAEMU and slowly decreases by half percentage point by the end of 2026, but the small inflation impact is cushioned by a central bank moderate monetary policy reaction.



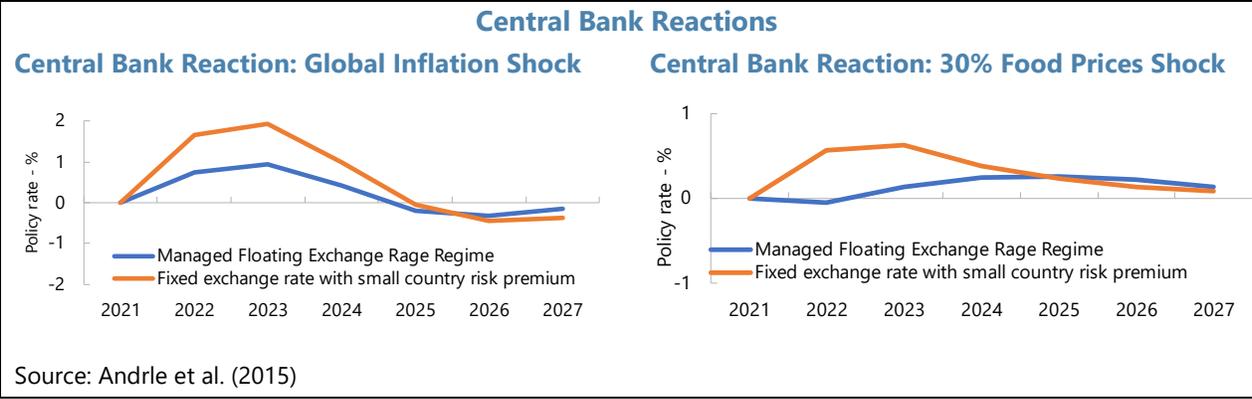
⁸ The path for core inflation was obtained from WEO and the inflation gap (inflation shock) was calculated by subtracting 2 percent from this path, since 2 percent is the steady state core inflation for both euro and US.



Monetary Policy Implications

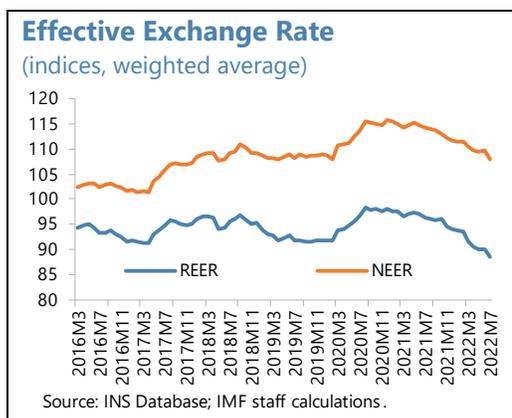
21. The results of the SARIMAX estimation—which can be used as a simple benchmark—do not call for a monetary policy tightening. According to the SARIMAX estimation, by the end of 2024, inflation is expected to reach $1\frac{3}{4}$ percentage points, which is within the target range. Hence this calculation does not call for a change in monetary policy. This is not surprising as the SARIMAX model accounts for food inflation which—as we have seen—is the key driver of inflation in the region. Of course, the SARIMAX model—while well-grounded in the key drivers of inflation—remains a simple benchmark that does not encompass a broad set of fundamentals in a general equilibrium setting. And to the extent this time around persistent and second round effects are stronger than over the historical sample over which the SARIMAX model was estimated, the model would not be able to capture these effects.

22. The simulation from AFRMOD results suggest that the central bank should react mainly to global inflationary shocks, and not to pure food prices shocks in the absence of second-round effects. In the case of a global food price shock, given the short-lived reaction of headline inflation and the very limited reaction of core inflation, the simulation indicates that the central bank does not need to react. This might be appropriate in the case of a pure, short-lived supply shock with no further inflation contagion across sectors nor second-round effects. However, in this model a positive shock to the Euro area and US inflation paths results in a more persistent and gradual increase in core and headline inflation, triggering a policy rate response ranging between 0.9 and 2 percentage points by the end of 2023, depending on the exchange rate regime assumed. This result suggests that in contrast to the food prices shocks, the central bank needs to react to sources of global inflation shocks that might persistently affect the region, in particular to those triggering other channels of inflationary pressures in the economy.

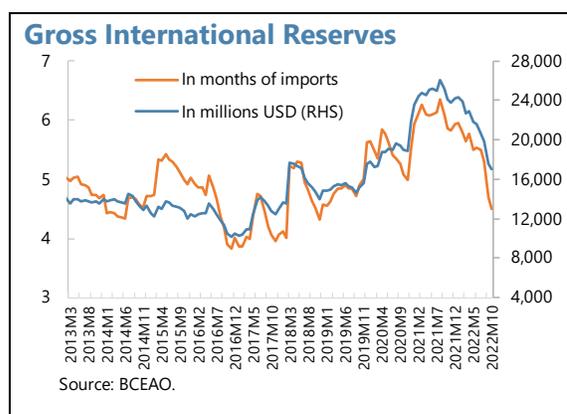


D. Other Factors Relevant for Inflation Developments and Desirable Monetary Response

23. The uncertainty surrounding external and internal political and economic factors remains pronounced. Externally, critical developments of the war in Ukraine, further aggravation of sanctions against Russia, tighter than expected monetary policy in developed countries, further increases both in international transportation bottlenecks and in European natural gas and fertilizers prices, and further depreciation of the Euro versus the U.S. dollar are risks that might put pressure on inflation upwards.

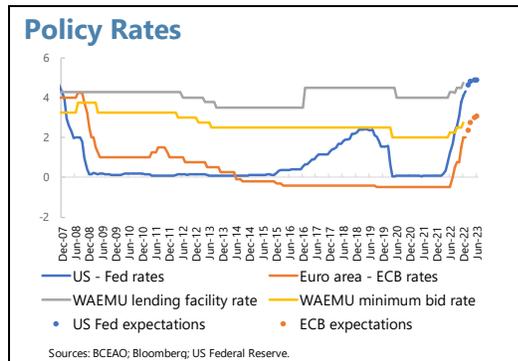


24. Challenges in fiscal consolidation should be carefully monitored. Fiscal consolidation is essential not only to maintain an adequate level of external reserves, but it is also crucial for price stability as higher deviations of fiscal deficit from current trends would exert additional pressure on inflation. To the extent the subsidies and price controls on essential goods implemented this year to contain price increases are not sustainable for much longer, one may expect again additional pressure on inflation.



25. Additional risks relate to climate and security. Some producing countries have been particularly affected by weather conditions and security issues.

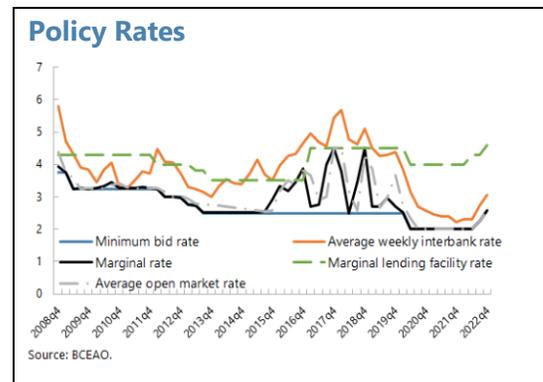
26. A deterioration of reserves and more difficult access to international capital are also risks that, if materialized, might tilt the desirable monetary policy response. While a tightening of monetary policy normally entails costs in terms of growth, it contributes to the mitigation of



inflationary pressures as well as the preservation of foreign exchange reserves. The level and evolution of foreign reserves are indeed important factors considered by the BCEAO. Article 76 of the BCEAO statutes specifies a minimum threshold for its level of foreign reserves, below which the monetary policy stance would need to be reassessed and remedial actions would have to be taken.⁹ Although the BCEAO does not traditionally follow the monetary policy decisions of the ECB (as visible in the Figure below)

mainly due to its capital controls, the current monetary policy tightening in the euro area is expected by the markets to be substantial both in terms of speed and levels, and as such it may place unusual pressure on WAEMU monetary policy. Therefore, it is important to further monitor these developments. Finally, it is important to avoid further risks of contagion and potential second-round effects, which might result in de-anchored expectations.

27. Overall, the analysis presented in this paper suggests that further monetary policy tighten would be necessary unless downside risks to current baseline inflation and external buffer forecasts improve. As always, monetary policy would need to be data-dependent based on economic developments, given the numerous external and internal risks affecting inflation prospects, which should be carefully monitored.



⁹ Specifically, the BCEAO should not let the monthly average of foreign exchange reserves fall below 20 percent of its sight liabilities (banknotes in circulation and deposits at the central bank) for three consecutive months. However, exchange rate stability is not a de jure objective of monetary policy.

References

Andrle, M., Patrick Blagrove, Pedro Espailat, Keiko Honjo, Benjamin Hunt, Mikko Kortelainen, Rene Lalonde, Douglas Laxton, Eleonora Mavroeidi, Dirk Muir, Susana Mursula, and Stephen Snudden, 2015, "*Flexible System of Global Models – FSGM*," IMF WP/15/64. The case for the WAEMU was prepared by Keiko Honjo (RES).

THE WAEMU REGIONAL MARKET FOR GOVERNMENT DEBT IN A PERIOD OF TIGHTENING FINANCIAL CONDITIONS¹

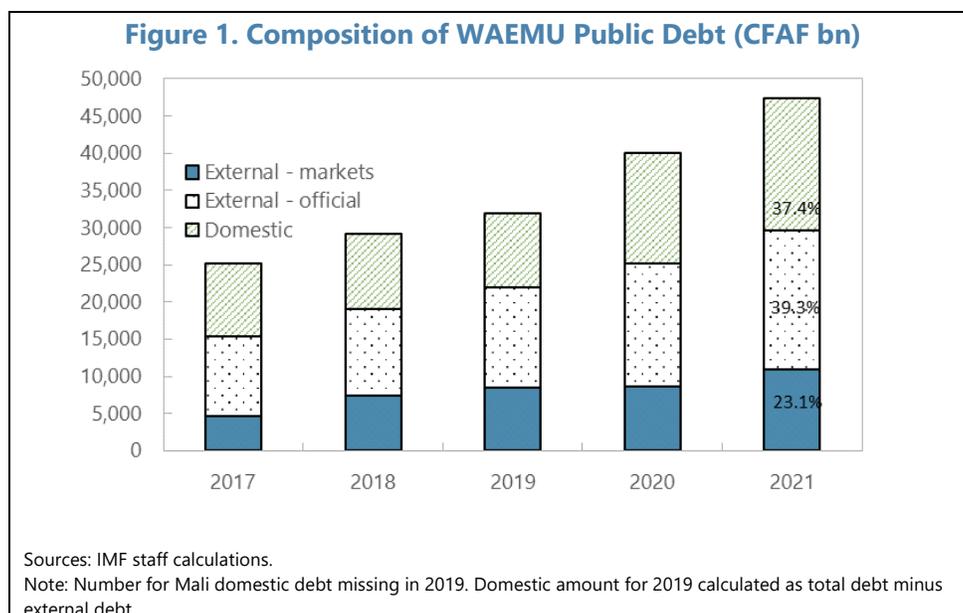
Rising global interest rates are generating tighter financial conditions which are particularly affecting sovereigns. At the same time, WAEMU countries have seen a rise in debt levels in recent years, which is increasing their fiscal vulnerabilities. This annex looks at the local regional financial market, in particular at the related interest rate and maturity risks, and the interplay between fiscal, financial, and external risks. A strong market segmentation between regional and external borrowing has served the region well in sheltering the region from rising global rates, but not be able to insulate the regional market for long time, if global rates remain persistently high. Despite a decent average maturity in the local market, about one third of local debt is coming due in the next two years, when appetite is likely to be low. Larger WAEMU countries have been benefitting from lower borrowing cost than smaller countries, in the regional market; this may imply an indirect adverse effect on the ability to borrow of smaller countries when global financial conditions deteriorate and access to external market weakens, even if smaller countries do not borrow on external markets. Despite some protection being provided by its exchange rate and monetary framework, WAEMU countries need to urgently revamp the credibility of their fiscal framework, given upcoming interest and roll-over risks, as well as rising global uncertainty. This will urgently require reintroducing and upgrading their fiscal rule and push forward with domestic revenue mobilizations in order to strengthen debt sustainability and rebuild buffers in the medium term. This would need to be accompanied by prudent debt management operations and further development of local financial markets, especially to promote activity in secondary markets.

A. Composition of Debt

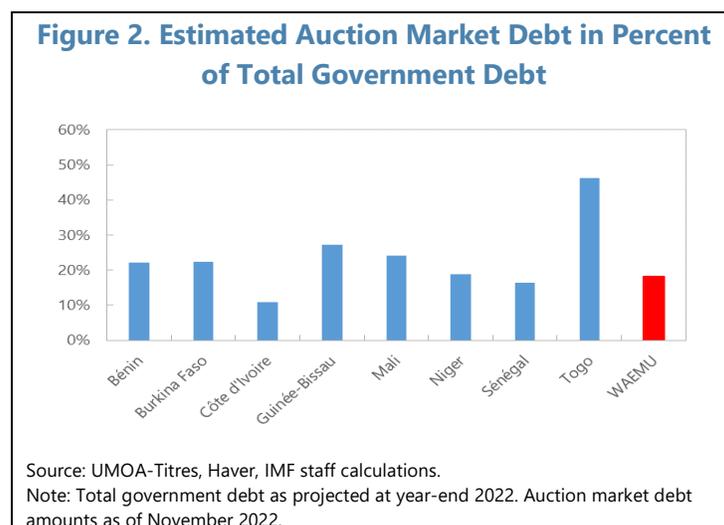
1. The composition of WAEMU debt is tilted towards external debt, but domestic debt is sizable.² As shown in Figure 1, approximately 60 percent of the debt is external, either official or issued in financial market. Domestically financed debt—defined as debt issued within the WAEMU region—accounted for almost 40 percent of total debt in 2021 and had been growing in previous years, both in levels and as a share, reflecting both the gradual financial deepening in the region and the need of country authorities to rely also on regional financing for rising borrowing needs. The discussion below will indicate that domestic debt has represented a relatively expensive source of financing. At the same time, the recent tightening of global financial conditions has reduced countries' ability to raise funds outside of the region. The primary focus below is therefore to assess developments and characteristics of the local financial market, including the segmentation versus external markets, trends in issuances, and the cost of borrowing in the region.

¹ Prepared by Tryggvi Gudmundsson (RES).

² For the baseline analysis, we focus on the WAEMU aggregate. Where appropriate and needed, we look at country specific data.



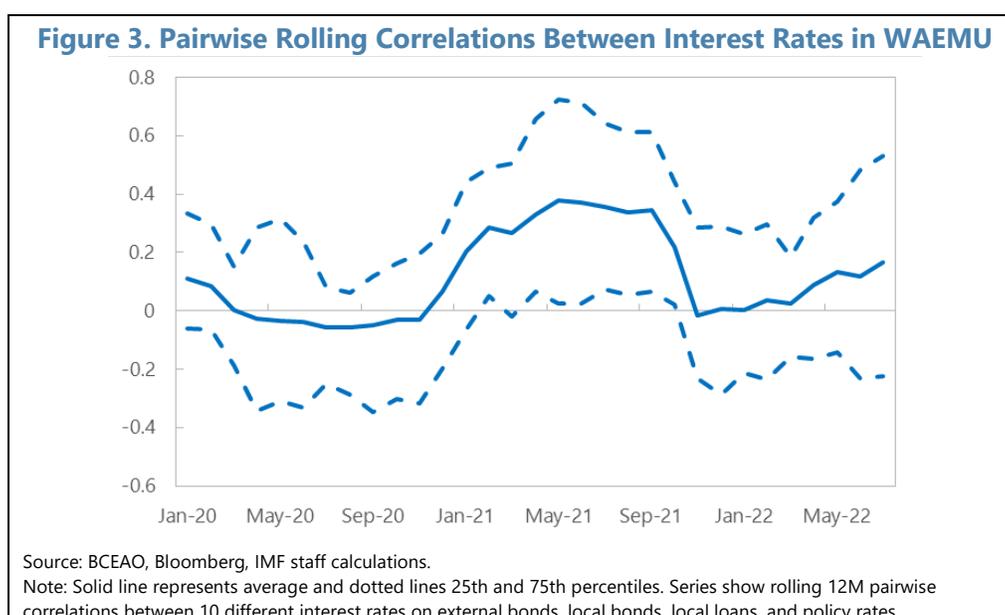
2. Within the domestic market, debt issued in the regional auction market represents a significant source of funds for most WAEMU members. Locally or regionally issued debt includes instruments issued in two markets, auctions and syndication, which—as mentioned in the main text of the Staff Report—are significantly segmented. Figure 2 below shows that debt raised in the auctions market accounts for about one fifth of total debt at the union level, ranging between 10 and 50 percent for individual countries. Notable extremes are Côte d’Ivoire (approx. 12 percent) where large external financing lowers its dependence on the auction market, and Togo (approx. 48 percent), which has limited access to external debt. The rest of domestic debt is due to debt raised in the syndication market as well as other avenues of local financing, such as bank loans. UMOA Titres offers detailed information on individual instruments issued via auctions, including principal amounts, interest rates, issuance date, and maturities. Hence the rest of the paper will leverage on this dataset to mainly investigate aspects of the auction market.



B. Segmentation of Domestic and External Markets

3. Given WAEMU's extensive capital controls and limited capital mobility, there is likely considerable segmentation between domestic and external debt instruments that WAEMU members issue. In particular, a subset of WAEMU countries issued Eurobonds in the last decade, and the terms of these issuances may exhibit dynamics that are determined to a greater extent by global financial conditions rather than local ones, also in light of extensive capital controls.

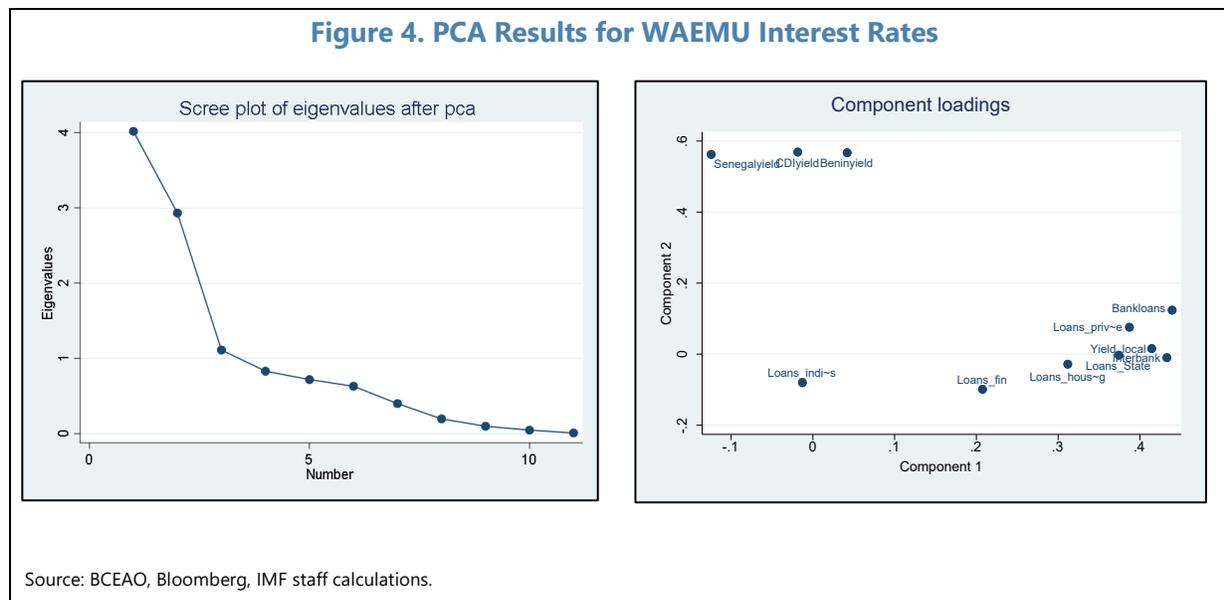
4. To look at such segmentation, we focus on four different sets of financial indicators: 1) spreads over international benchmarks of international bonds issued by some WAEMU countries, 2) yields on regional debt issuance within WAEMU, 3) interest rates on loans issued by banks to various counterparts,³ 4) the weekly average interbank rate (which recently has been close to the BCEAO minimum bid rate). In Figure 3 below, we plot the average of 12-month rolling pairwise correlations between the various instruments for the period available, as well as the 25th and 75th percentiles. As can be seen, the average correlation is not far from zero although there is a steady pickup in co-movement during the early period of the Covid recovery, before global interest rates started to rise.



5. For a more focused look at the co-movement of interest rate developments, Figure 4 shows the results of a simple Principal Component Analysis (PCA) on the same instruments as above. The first two components of the PCA appear non-trivial, accounting for 63 percent of the observed variation. Furthermore, the component loadings, shown in the right-hand side panel of Figure 4, present an interesting split between markets. The first component, which explains 37 percent of the total variation, is heavily tilted towards the domestic portion of financial markets

³ For interest rates on loans, we look at interest rates on all loans granted by banks, rates on loans to states and related entities, to individuals, to financial customers, to private enterprises in the productive sector, and interest rates on housing loans.

(bottom right group of rates in right panel), which is intuitive given their high proportion in terms of number of available series. However, the second component is closely related to the international series (top left group in the right panel), namely the spreads on Eurobonds of the three countries that issue internationally, which exhibit very different behavior with limited importance of the first component but significant of the other. This suggests that the local and international markets are indeed segmented to some extent. Going forward, however, the effectiveness of capital flow measurement tools may be reduced if the interest rate differential between local and global markets increases.



6. Simple correlations between rates on local and external markets confirm significant segmentation between the two markets. Figure 5 looks at the extent to which local conditions correlate with external conditions for the three countries that have issued bonds internationally, i.e., Benin, Côte d'Ivoire, and Senegal. Each series shows the rolling correlation of each country's external spreads with local interest rates.⁴ The three countries show similar behavior: for each country there is limited co-movement between local rates and external spreads. However, the co-movement appears to rise at periods of tightening global financial conditions, as per early 2021 and during the recent tightening of monetary policy in advanced economies. Table 1 in turn shows pairwise correlations between spreads on the three countries' external debt: the elevated numbers show how closely linked spreads on different countries' external debt are. And such correlation on external spreads is higher than the correlation between local and external markets. This also suggests that idiosyncratic country risk, as reflected in the local market pricing, has a limited role to play in determining financing costs in external markets for the three countries.

⁴ More detailed analysis of the developments of local and external rates goes beyond the scope of this paper but would be useful for future research. This could include the quantitative effects of local and international monetary policy on the different rates, as well as indications of time-varying effects.

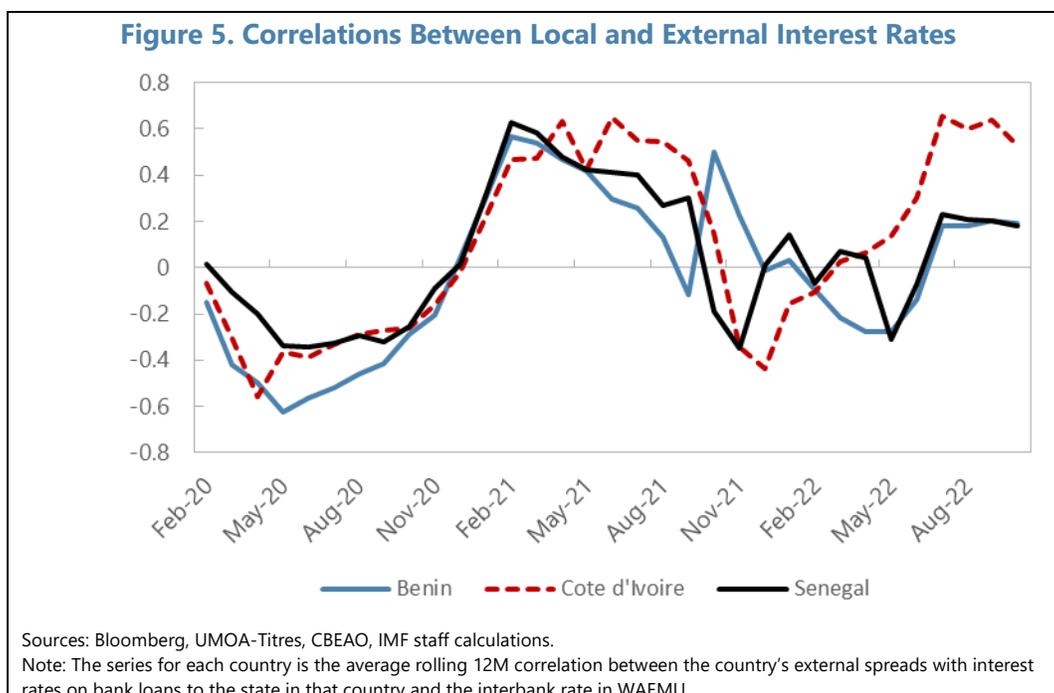


Table 1. Correlations Between Spreads on External Debt

	Benin	Cote d'Ivoire	Senegal
Benin		0.90	0.93
Cote d'Ivoire	0.90		0.95
Senegal	0.93	0.95	

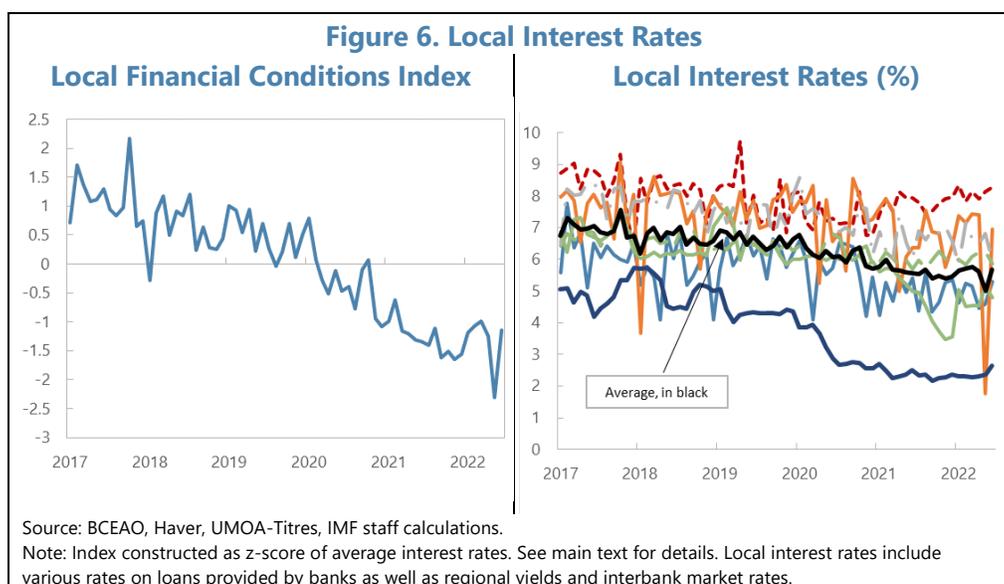
Sources: Bloomberg, CBEAO, IMF staff calculations.

Note: Each number represents the correlation between two countries' spread on external debt between March 2019 and October 2022.

7. Going forward, it will be challenging for WAEMU countries to maintain favorable financing conditions amid a sharp turn towards tighter global financial conditions. So far, the tightening of monetary policy has been considerably greater in systemic advanced economies than in WAEMU. This is most notably the case in the US, but also in the eurozone where the policy rate has been raised by 200 bps as of December 12 2022, compared to 75 bps in WAEMU. Developments in the eurozone may be particularly relevant, given the peg to the euro, particularly if the European Central Bank tighten policy materially more than it already has and the wedge between local and global financial conditions increases.

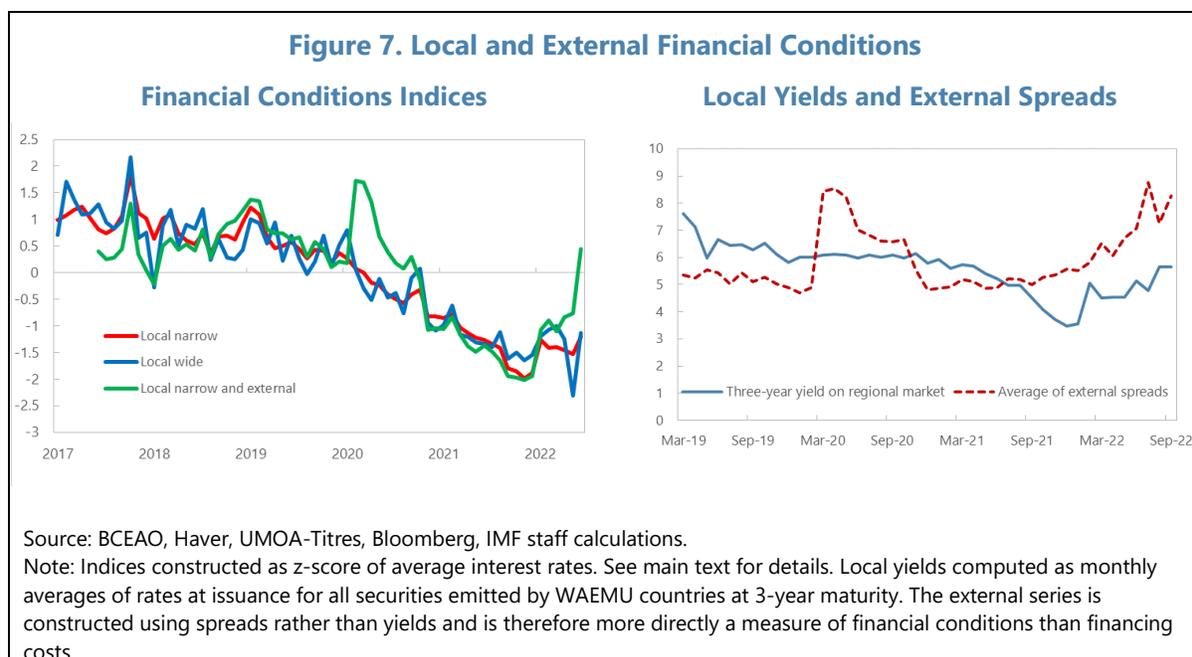
8. The limited removal of policy accommodation has been accompanied by a continuation of relatively easy financial conditions. Figure 6, left-hand side, shows a composite measure of financial conditions, measured as a z-score index for the average of seven local interest rates: bank loans to the state, bank loans to individuals, bank loans to financial customers, bank loans to private enterprises, housing loans, the three year-yield on the regional market, and the

average weekly interbank rate. The figure shows that local financial conditions remain relatively easy, in contrast to the tightening in many other regions. The right-hand side shows the interest rates themselves over time.



9. Local financial conditions developments differ at times from global ones, especially recently. Figure 7 shows the different developments in local and global financial markets. The figure compares the previous index of local financial conditions, in blue, with an index, in green, where the z-score consists of a narrower set of local interest rates in addition to an average of spreads on external market debt.⁵ Adding the external spreads leads to a sizeable tightening during both the initial stage of Covid when global financial markets experienced outsized volatility, as well as more recently where financial conditions have tightened sharply. The red series, in turn, summarizes this narrower set of local series, by averaging the different interest rates on loans (to individuals, firms, financial institutions and governments) in order to reduce their impact. The resulting narrow series is somewhat more volatile than the wider one but exhibits similar trends. Finally, the right-hand side chart in Figure 7 shows two of the underlying series in the z-scores to illustrate the different developments of local and external financial conditions. As can be seen, the yield on the regional market has been relatively steady in recent years with a gradual decline over the whole period. This contrasts to a rapid tightening of conditions externally during the initial stages of the pandemic as well as more recently as risk aversion has increased.

⁵ This narrow set of local interest rates consists of three series: a composition of bank loan interest rates, the interbank rates, the yield on the regional market. The difference, compared to the initial index, is that the bank loan interest rates are averaged as opposed to including the individual series for bank loans to various sectors.



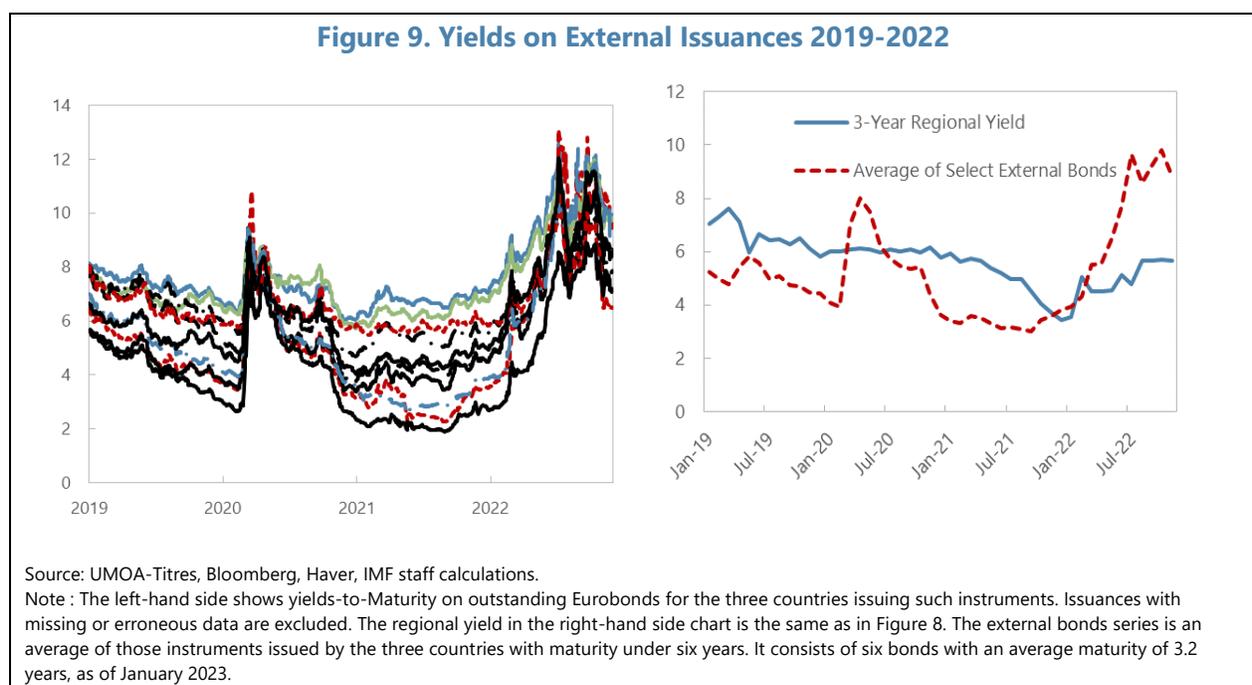
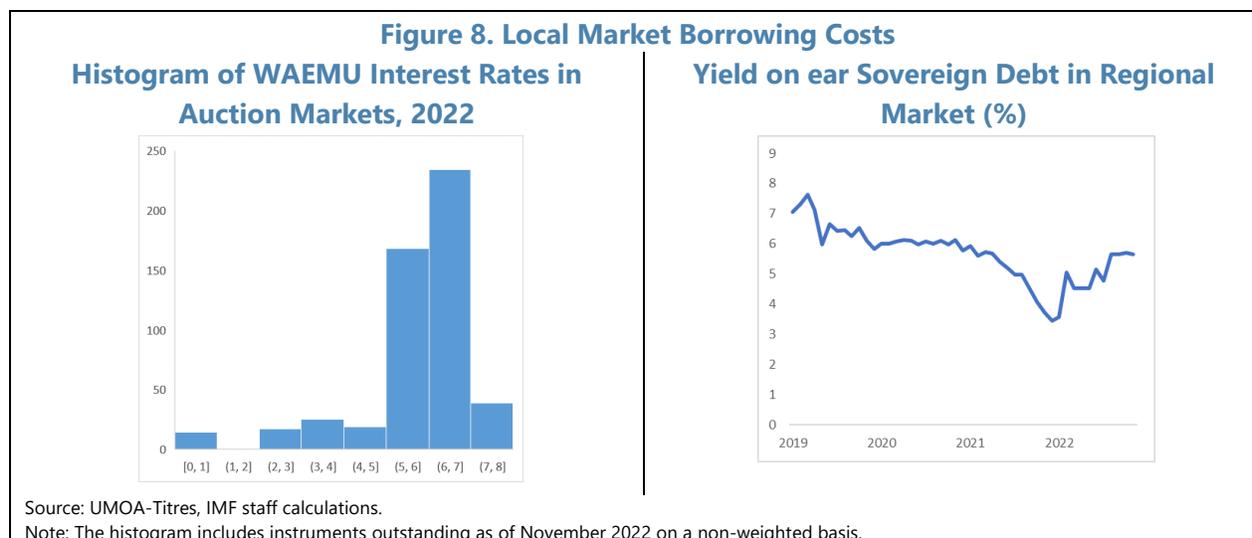
C. Borrowing Costs: Likely to Increase Especially for Smaller Countries (Size Matters)

10. The interest rates paid on debt raised in the regional auction markets are quite high, generally in the region of 5-7 percent. The distribution of interest rates on local bonds, with maturity ranging from a few months to fifteen years, shows that the range of interest rates paid by countries is relatively narrow, with most rates occurring within the 5 to 7 percent range (see Figure 8, left-hand side). Differences in the rates would reflect traditional characteristics such as the issuing country, maturity, and conditions at the time of issuance.⁶ Recently, local yields have increased from their pandemic lows but remain below pre-pandemic levels, as visible in Figure 8 right-hand side panel, which shows the yield over time for the average issuances at the three-year maturity (such a yield, in November 2022, was close to the middle of the distribution on the left panel).

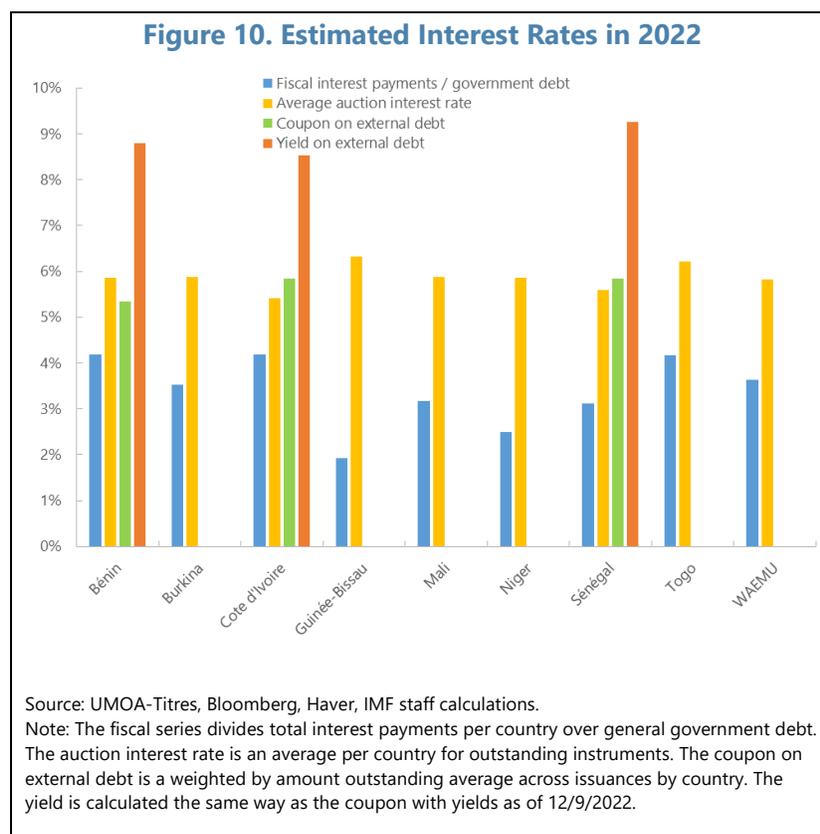
11. External rates can also be high, but in particular they are much more volatile, indeed reaching at end-2022 levels which make borrowing prohibitive. Three WAEMU countries that have so far issued on external markets (Benin, Cote d'Ivoire, and Senegal) face rates that fluctuate more wildly than on the domestic regional market. Indeed, yields on these external bonds, as plotted in the left on Figure 9, have increased substantially in recent months, reducing the incentives, and potentially the possibility, of these three sovereigns to borrow further on the external

⁶ The current and expected stance of monetary policy would also be expected to play a role in determining interest rates on government bonds. However, due to the underdeveloped nature of the local financial markets, decomposing the term structure of interest rates into the path of expected interest rates on the one hand and term and risk premia on the other is not possible. See SIP on "Inflation Dynamics In The WAEMU". Both the minimum bid rate and the lending facility rate have been below 5% for the last decade, suggesting considerable term/risk premia embedded in market prices of sovereign debt. A lack of a futures market prevents analysis of future expected policy rates.

market (a similar picture is offered by the spreads on these issuances as visible in the Staff Report, Figure 2). This likely reflects both the general tightening of financial conditions as well as the perceived credit risk of these issuers. The right-hand chart in Figure 9 compares the three-year yield on the regional market, from Figure 8, to an average of external market bonds with a similar maturity of 3.2 years. As can be seen, bonds of similar maturity in the external market fluctuate significantly more than those in the regional market. They are therefore a cheap source of financing during times of loose global financial conditions but expensive when conditions are tight, as they are now.



12. Overall interest payments costs have been manageable so far, despite high regional and external market rates, owing to concessional components. Figure 10 compares four estimates of interest rates: the effective interest rates on total government debt based on the fiscal accounts (interest payment component of the fiscal balance divided by total debt); the average interest on auction debt (average marginal yield of instruments outstanding); the weighted average coupons and yields on external market debt for the three countries that have issued such instruments. Compared to the effective rate on government debt (blue column), the auction market (yellow column) can be seen as a relatively expensive way of financing government expenditure, in part due to countries' generally wide access to concessional debt. External market debt, in turn, has been financed at rates (green) quite close to auction market interest rates.⁷ However, yields on external market debt (orange) are very volatile and are now considerably above their coupon rate at issuance, following the recent tightening of global financial conditions. Rollovers or new issuances in external markets would therefore currently be much more expensive than historically. This is somewhat mitigated by the fact that the average maturity is quite high for external bonds, or 12 to 14 years for the three countries.

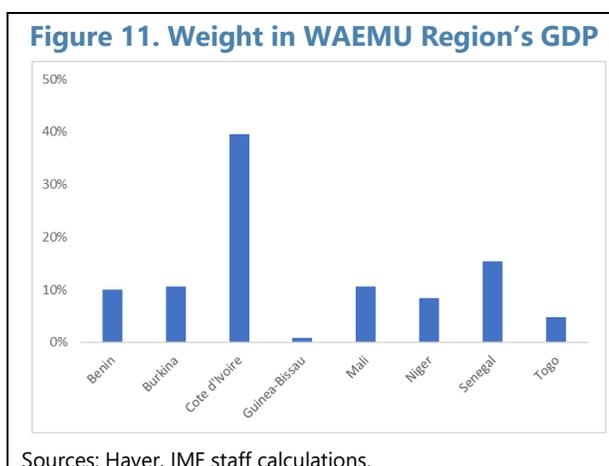


13. Going forward, it is likely that sovereign interest payments will increase. Normalization of monetary policy in WAEMU, in a global environment with higher interest rates, can be expected

⁷ It should be noted that characteristics, including maturity and date of issuance, vary between auction markets and external markets.

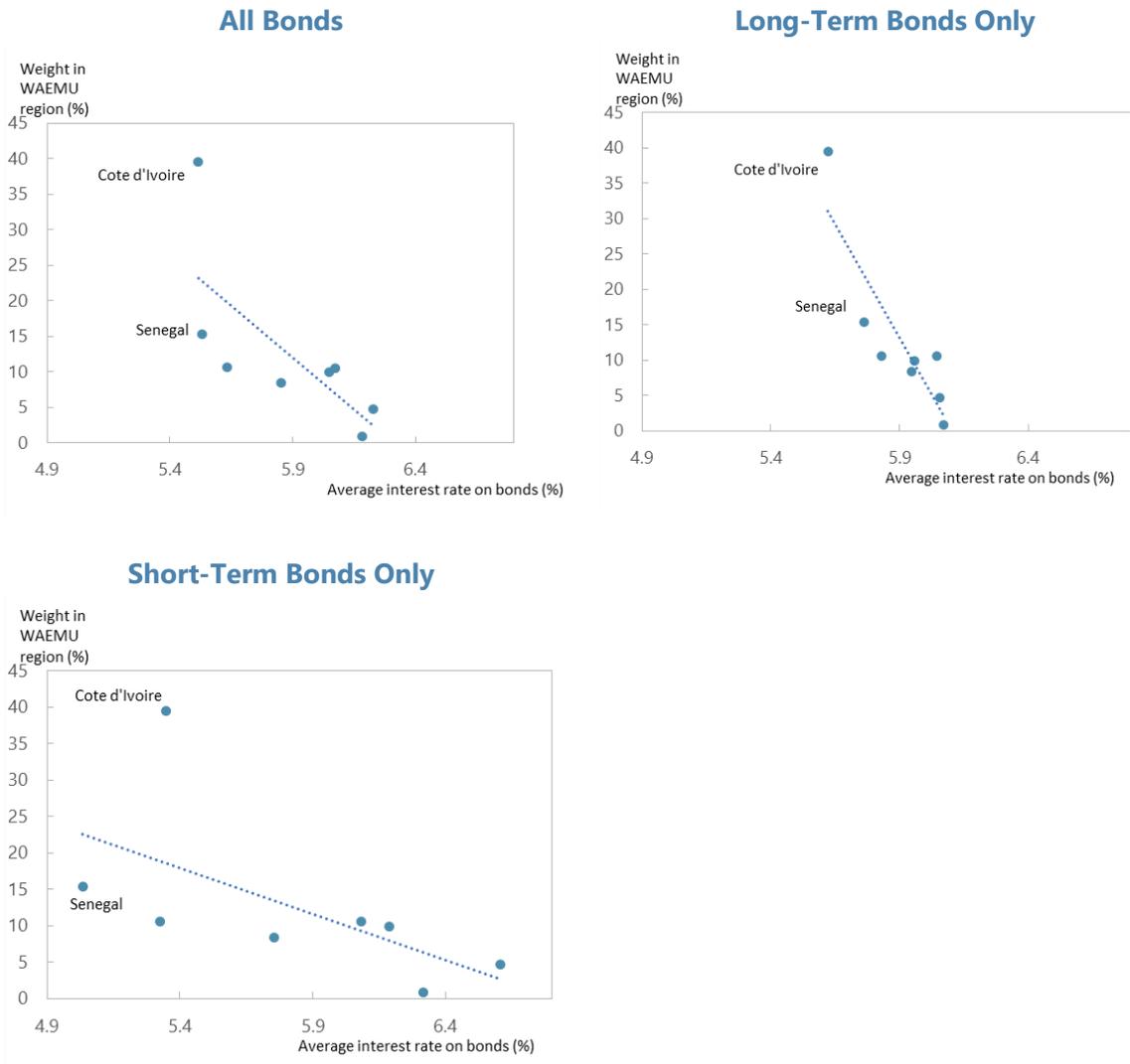
to push rates up on the local market. Externally, global monetary policy tightening and reduced risk appetite are also making external market debt a more expensive option for WAEMU countries. Finally, over time, the strong growth performance of WAEMU countries will move them up the ladder of economic development and will gradually reduce their access to concessional financing, which will in turn contribute to raising the effective interest rate on the stock of government debt. Taken together, these developments may complicate access to financing for all three segments, i.e., local market debt, external market debt, and external concessional debt, further highlighting the importance of prudent debt and fiscal policy management, within a medium-term strategy.

14. In addition to having greater access to international financial markets, the larger member countries also enjoy more favorable borrowing costs in local markets. So far, the three countries that have issued internationally enjoy rates on the regional market which are in part related to their relative sizes compared to other members (see Figures 11 and 12). Figure 12, in particular, shows that rates on the regional auction market are inversely related to country size. This is the case for issuances in general, as well as when focusing only on longer or shorter maturities. The slope is considerably steeper for long-term bonds (defined as those bonds maturing in 2025 or later), although it is clearly negative for all figures.⁸ The reason for this negative correlation between country size and borrowing costs may be due to a number of factors beyond purely size, including macroeconomic fundamentals, strength of institutions, credit risk, and debt levels. However, irrespective of the underlying reason for the relationship, decreased access to regional finance could exacerbate such differential borrowing costs and lead to crowding out of smaller members. Furthermore, a negative shock to global financial conditions may diminish access to international markets by larger members. While external rollover needs are not outsized in the next two years, loss of external market access could lead the issuers to be more reliant on local markets, and possibly crowding out smaller members. This could have indirect effects on smaller members, rendering them vulnerable to global conditions despite not being issuers in international markets themselves.



⁸ The data in Figure 12 are averages across instruments for each country and may conceal variation. However, long term rates appear to fall in a narrower range than short-term rates which vary more, including by country size. Further analysis on these trends is beyond the scope of this paper but would be warranted, including a closer look at determinants of debt pricing and the effect of country characteristics.

Figure 12. Country Sizes and Borrowing Costs

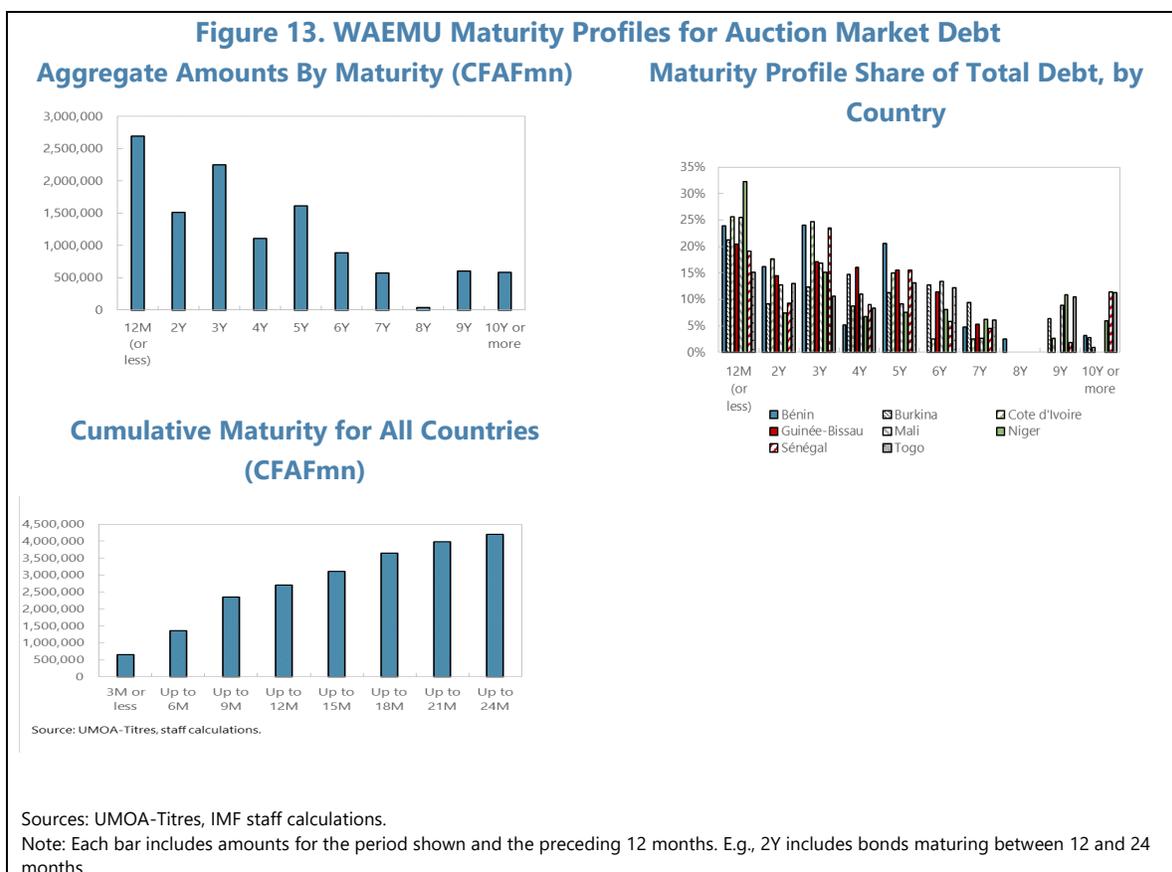


Sources: Haver, UMOA-Titres, IMF staff calculations.
 Note: Long-term bonds defined as those maturing in 2025 or later.

D. Rollover Risks

15. The vulnerabilities to short-term volatility will heavily depend in coming quarters on the maturity structure of countries' debt. As shown in the table below, the average maturity of local bonds, weighted by principal, is above two years for all members although there is considerable heterogeneity across countries. Cote d'Ivoire has the lowest average maturity, at just under 29 months, while Togo has the highest average maturity at approximately 47 months. While the averages are relatively favorable, some countries may still have non-trivial amounts of debt maturing in the short-term which could leave them vulnerable to both interest rate risk—as new debt is generally financed on less favorable terms—and rollover risk—whereby countries may face difficulties in refinancing if they enjoy limited or no market access.

16. About one-fourth of regional debt on the auction market is coming due in the next year and one-third within two years. Figure 13 shows the distribution of debt issued on the auction market by amounts. The first figure shows the maturity profile for the region as a whole. It shows that despite the relatively long average maturities (discussed above), the region has a large amount of debt (at least one fourth) maturing within twelve months. The second figure shows the same results on a country level. While there are substantial differences between countries, all members have at least 15% of their debt maturing in the next twelve months, and as high as roughly 30% in the case of Cote d'Ivoire and Niger. Finally, the third figure shows the cumulative nominal amount maturing for the region within the next two years. More than 2.5CFA trn (or about 23 percent of the total) is due within 12 months, while almost 4.5 CFAFtrn (or 6.5 EURbn, about 35 percent of the total), is due within the next 24 months. This is equivalent to 4.1% of estimated 2022 GDP, suggesting a non-trivial amount but likely manageable under unchanged regional financial market conditions, as banks may be willing to roll-over such debt.



E. Conclusions

17. The persistent rise in public debt, coupled with the recent surge in inflation and subsequent tightening of global monetary policy is adding to debt risks for WAEMU members. The sharp rise in public debt, both prior to and following the Covid pandemic, has increased member countries' sensitivity towards interest rate developments. In recent months, financial conditions have tightened noticeably, though more in global markets than in the regional WAEMU market.

18. The paper documents the evident segmentation between local and external markets in terms of dynamics of borrowing costs, likely associated with capital controls. This segmentation, together with ongoing greater reliance on tapping local markets for financing needs, have partially shielded member countries from the global rise of borrowing costs. However, it is not reasonable to expect that domestic rates would remain insensitive to global rates for a long time, should the global rates remain persistently high.

19. While the average maturity of local debt exceeds two years for all members, about one third of members' debt matures within the next two years. Coupled with the broad-based rise in global interest rates, as well as tightening monetary policy locally, this implies that a sizable share of debts will be coming due at a time of diminished appetite for bonds and rising borrowing costs.

20. The paper also shows that larger member countries appear to pay lower interest rates on debt issued within the region. This may lead to crowding out of smaller countries if financing conditions become difficult. Hence, although smaller members do not issue internationally, they may be indirectly exposed to global financial conditions if larger members lose access internationally and need to borrow more in local markets.

21. Overall, interest payments are likely to increase over the next few years, affecting, in particular, the smaller countries. While external market access rates and spread may decline somewhat from the current levels, financial conditions are likely to remain tighter than pre-pandemic. Should global financial conditions and monetary policy remain tight for some time, it is unlikely that local financing condition and monetary policy would not tighten as well. In that case the segmentation would no longer serve to shelter WAEMU members, at a time where a large amount of debt will be maturing. This would likely adversely affect the ability to roll over debt in the short term as well as regional debt dynamics in the longer term with the effects much larger for the smaller countries in the region.

22. A revamped fiscal rule, within the context of a well-crafted fiscal strategy, is essential to preserve debt sustainability. To contain interest rates and rollover risk, it is essential to restore the credibility of the fiscal strategy. This will require securing fiscal consolidation over the medium term (including by managing the so-called Stock Flow Adjustments) and ensuring that debt ratios remain within the debt ceilings of the expired fiscal rule, eventually placing public debt on a downward trajectory, as discussed in the SIP on “Revamping the WAEMU Fiscal Framework”. And it should be accompanied by the reintroduction of the fiscal rules, revamping some of the elements. These actions would help contain interest expenses as a proportion of government expenditure, thus limiting the exposures to interest rate and rollover risks highlighted in this paper. Furthermore, improvements in debt management operations can support financial development and enhance the attractiveness of government debt. Most notably, deepening of secondary markets would improve liquidity and allow for greater price discovery, including by facilitating the emergence of more traditional yield curves and thus aiding both monetary policy implementation and transparency.

Annex I. Country Yield Curves on the Auction Market

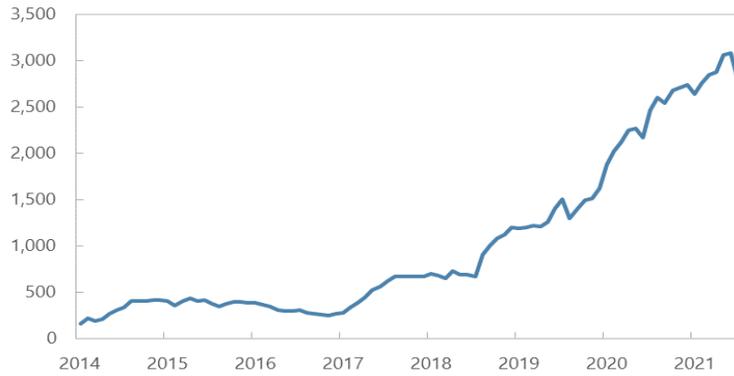
1. This annex provides simple estimates of the yield curves on the auction market.¹ The shallow nature of local financial markets, coupled with a severely limited secondary market which reduces price discovery and liquidity, complicates the construction of traditional yield curves. As shown in Figure 14 below, transactions in the secondary markets have been increasing in recent years but the level remains low compared to the size of the market. As mentioned previously, the market for local sovereign debt currently has around CFAF12.2 trn outstanding, compared to an annual turnover of CFAF 3 trn, suggesting a still low turnover ratio. Furthermore, infrequent issuance results in challenges regarding both comparability across instruments and the signals provided by the implied slope of the curve. The high importance of primary issuances, as opposed to activity in secondary markets, coupled with common practice of issuing at a discount makes conventional analysis of yields and interest rates more challenging. A new issuance in theory provides information on current financing conditions but the interpretation is complicated by the fact that the maturity and issuance date both change over time. For example, a reduced appetite for duration by market participants could show up in shortening of maturities and higher required yields. However, the result of this could be that a new shorter maturity bond may bear a higher interest rate than an older bond with longer duration, giving a somewhat misleading downward sloping yield curve when plotting yields of outstanding debt by maturity. Furthermore, as noted elsewhere, it is common for countries to issue at a discount, as opposed to par, to keep the coupon rate lower. This creates a wedge between implied or de facto interest payments and coupon payments. With these caveats in mind, we can present simple calculations of government interest rates by maturity based on the data from UMOA Titres (Figure 15).²

2. Overall, the yield curves confirm an upward sloping pattern at the aggregate level. Interest rates range from 5-6 percent in the short end of the curve to 6-7 percent in the longer end. The short-end rates lie somewhat above the central bank's current lending facility rate which is at 4.75% as of December 2022. On a country basis, the WAEMU members show significant heterogeneity with regards to slope, underlying the aforementioned issues of shallow and illiquid local financial markets with very limited activity in the secondary markets. Figure 16 shows the same results as above but for each WAEMU member country separately. While some countries, such as Senegal, exhibit a gradually upward sloping curve, others, such as Benin, show no discernible pattern for the term structure of interest rates.

¹ UMOA Titres publishes weekly yield curve data based on primary market yields that are broadly consistent with those presented in the annex.

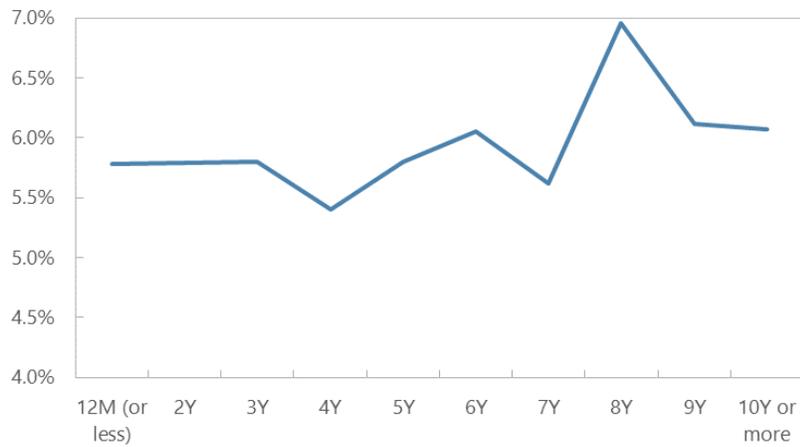
² The figure shows the average interest rate of all instruments in the region for each maturity bucket.

Figure 1. Transaction Volume in Secondary Markets (CFAFbn)



Sources: UMOA-Titres, IMF staff calculations. Series calculated as 12-month moving sum.

Figure 2. Implied Yield Curve



Sources: UMOA-Titres, IMF staff calculations.

Figure 3. Estimated Country Yield Curves on the Auction Market



Source: UMOA-Titres, IMF staff calculations.

Note: Interpolation used when no data for specific tenors. No instruments for Guinea-Bissau beyond seven years.