INTERNATIONAL MONETARY FUND

REGIONAL ECONOMIC OUTLOOK

ANALYTICAL NOTE

SUB-SAHARAN AFRICA

Managing Exchange Rate Pressures in Sub-Saharan Africa—Adapting to New Realities

2023
APR

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April 2023 Regional Economic Outlook: Sub-Saharan Africa Analytical Note

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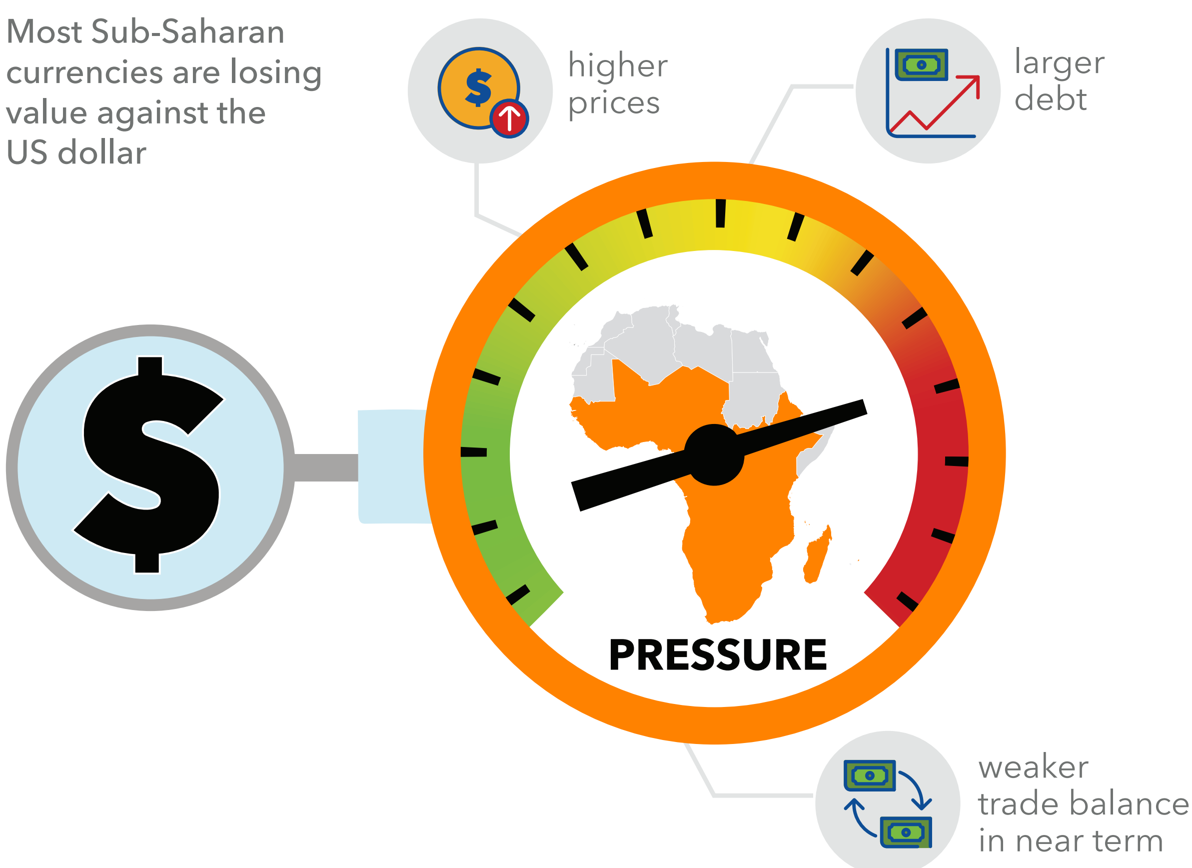
RECOMMENDED CITATION: International Monetary Fund (IMF). 2023. "Managing Exchange Rate Pressures in Sub-Saharan Africa—Adapting to New Realities." In *Regional Economic Outlook: Sub-Saharan Africa—The Big Funding Squeeze,* Washington, DC, April.

JEL Classification Numbers:	E31, E52, E62, E63, F14, F31, F37, F41, H62, H63.
Keywords:	Exchange rate, currency depreciation, foreign exchange, international reserves, inflation, public debt, trade balance, Africa, US dollar strength.

[1] **ACKNOWLEDGMENTS:** The April 2023 issue of the *Regional Economic Outlook: Sub-Saharan Africa* (REO) Analytical Notes were prepared by the African Department, Regional Studies Division staff, under the supervision of Wenjie Chen, Luc Eyraud, and Catherine Pattillo.

Managing Exchange Rate Pressures in Sub-Saharan Africa—Adapting to New Realities

Sub-Saharan African countries, as elsewhere, have recently faced significant exchange rate pressures driven predominantly by external factors, including tighter financing conditions and adverse terms of trade which are expected to be durable. Currency depreciations have contributed to higher inflation and public debt and deteriorated the trade balance in the near term. However, with reserves running low, most non-pegged countries have no choice but to let the exchange rate adjust and tighten monetary policy to mitigate the impact on inflation. To preserve external stability, pegged countries are bound to adjust monetary policy in line with the country of the peg. In both country groups, fiscal consolidation can help to rein in external imbalances and contain the increase in debt related to currency depreciation.



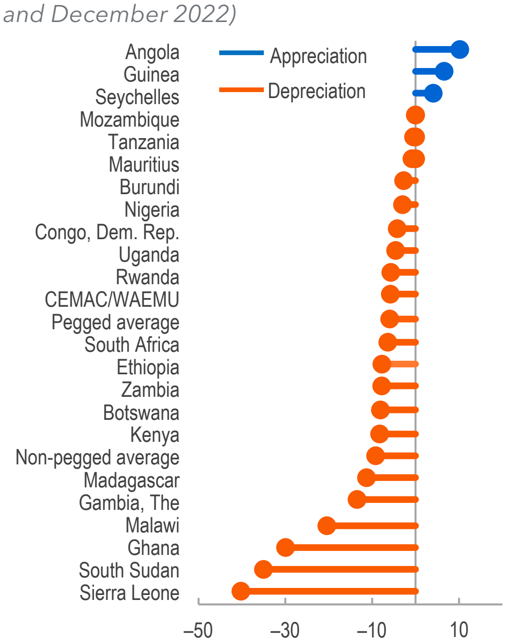
Sub-Saharan Africa is Facing Significant Exchange Rate Pressures

Most currencies weakened in 2022 against the US dollar—the dominant currency for trade invoicing and external debt.[1] Official exchange rates in non-pegged countries, where the exchange rate is not fixed to another currency on a de jure basis, depreciated 7 percent on average year over year by the end of 2022, exceeding 20 percent in some cases (Figure 1). There were large exchange rate spreads in parallel markets in some countries (Burundi, Ethiopia, Nigeria)—at times, reaching 90 percent. Pegged countries—where the exchange rate is fixed (mostly to the euro or the South African rand)—also saw their currencies weaken against the US dollar.[2] The exchange rate pressures also manifested in the depletion of reserve assets, as foreign exchange inflows slowed, and central banks used their reserves to finance imports and repay foreign debt. An index—combining depreciation against the US dollar and reserve depletion—shows that exchange rate pressures were at a six-year peak in 2022, on average, and were higher in pegged regimes and non-resource-intensive countries (Figure 2).[3] While this note focuses primarily on developments in 2022, pressures against the US dollar have persisted in the first months of 2023 in many countries.

Exchange rate pressures stem from both global and domestic factors. The combination of monetary policy tightening in advanced economies and greater global risk aversion decreased net foreign exchange inflows to the region and priced out frontier economies from the international capital market. Higher interest rates in the United States pushed the trade-weighted US dollar index, a broad-based measure of US dollar strength, to a 20-year high in October 2022. Weak external demand related to monetary policy tightening and economic

Figure 1. Sub-Saharan Africa: Exchange Rates, National Currency per US Dollar

(Official rate, percent change between December 2021 and December 2022)

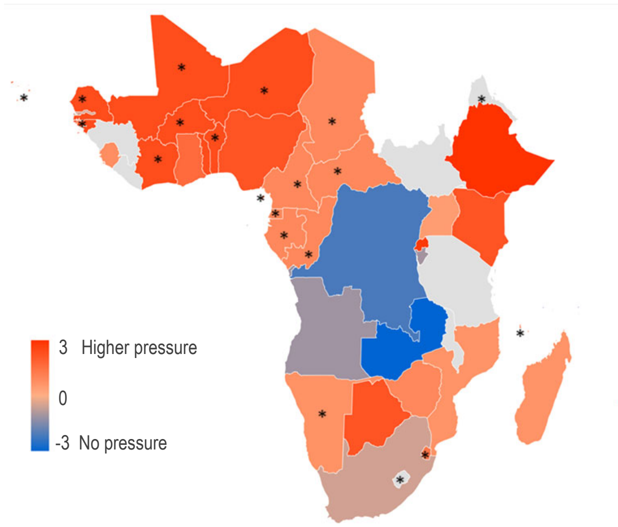


Source: IMF, International Financial Statistics database.

Note: CEMAC = Central African Economic and Monetary Community; WAEMU = West African Economic and Monetary Union.

Figure 2. Sub-Saharan Africa: Exchange Rates Pressure Index, 2022

(Average for the year)



Sources: Haver Analytics; IMF, Monetary and Financial Statistics database, International Financial Statistics database, and World Economic Outlook database; and IMF staff calculations.

Note: Red shades indicate higher pressure compared to other sub-Saharan African countries, blue shades indicate no pressure, and gray indicates missing data; an asterisk indicates conventional exchange rate peg.

1 A total of 84 percent of exports, 67 percent of imports, and 60 percent of external debt are priced in US dollars for the median country.

2 Year-over-year depreciation against the US dollar reached 20 percent in the West African Economic and Monetary Union (WAEMU) and Central African Economic and Monetary Community (CEMAC) at its peak in September 2022.

3 The index is the weighted average of (1) a change of the official nominal exchange rate against the US dollar and (2) the change in foreign reserves (normalized by monetary base) following (IMF 2007). The weights are the inverse of the standard deviations of the two components, to ensure that neither dominates the index. Parallel market exchange rate was used for Burundi, Ethiopia, and Nigeria.

slowdown in major economies (euro area and China) created headwinds for exports, while higher oil and food prices, partly due to the war in Ukraine, pushed up import costs for net importers. On the domestic side, fiscal deficits also contributed to external imbalances in some countries. About half of the countries in the region had deficits exceeding 5 percent of GDP in 2022, and countries with larger fiscal deficits tended to face higher exchange rate pressures. In some countries deficits were monetized leading to higher inflation, which in turn, weakened currencies further.

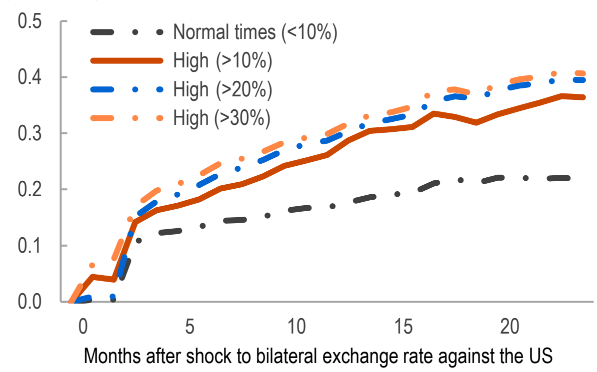
Weaker currencies lead to higher inflation, larger debt, and a weaker trade balance in the near term

Sub-Saharan African economies—particularly non-pegged countries—display a high exchange rate pass-through to inflation. For the region as a whole, a 1 percentage point increase in the rate of depreciation against the US dollar leads, on average, to an increase in inflation of 0.22 percentage points within the first year, which is higher than in emerging Asia (0.15) and Latin America (0.18). The pass-through is 0.28 for non-pegged countries in the region, about four times stronger than in pegged countries where trade is mostly invoiced in the peg currency. In the WAEMU, for example, about 72 percent of trade is invoiced in euro (Boz and others 2020), which makes imports and consumer prices less responsive to US dollar changes.

Large depreciations are associated with considerable risks of inflation de-anchoring, especially in non-pegged regimes. The size of the depreciation matters. When depreciations are modest, the increase in inflation occurs mostly in the first year after the shock (Figure 3). However, at higher levels of depreciation, the percentage increase in inflation is not only disproportionately larger in the first year; it continues to be high well into the second year after the shock. Moreover, there is evidence that exchange rate pass-through to inflation is asymmetric; during episodes of depreciation, pass-through is estimated to be eight times stronger than during periods of appreciation, suggesting inflationary pressures may not come down quickly when the local currencies strengthen against the US dollar.

Figure 3. Exchange Rate Pass-Through to Inflation in Sub-Saharan African Countries with Non-Pegged Regime

(Percent)



Source: IMF staff calculations.

Note: The lines show—for different levels of exchange rate depreciation—the cumulative responses of inflation at different horizons after 1 percentage point increase in exchange rate depreciation against the US dollar. The impact is estimated using local projection methods on monthly data for 44 sub-Saharan African countries covering the period January 1980 to July 2022 while controlling for global food and energy prices, shipping cost, fertilizer prices, and climate-related shocks.

Currency depreciation pushes up the public debt stock. About 40 percent of the region's public debt is external. Since the beginning of the COVID-19 pandemic, exchange rate depreciations increased public debt in sub-Saharan Africa by 10 percentage points on average by the end of 2022, holding all else equal (Figure 4).[4] The debt stock increase is relatively more pronounced for non-pegged regimes, in part because a greater share of their debt is in US dollars—66 percent of external debt and 99 percent of Eurobonds, compared to only 50 percent and 45 percent, respectively, in pegged regimes.

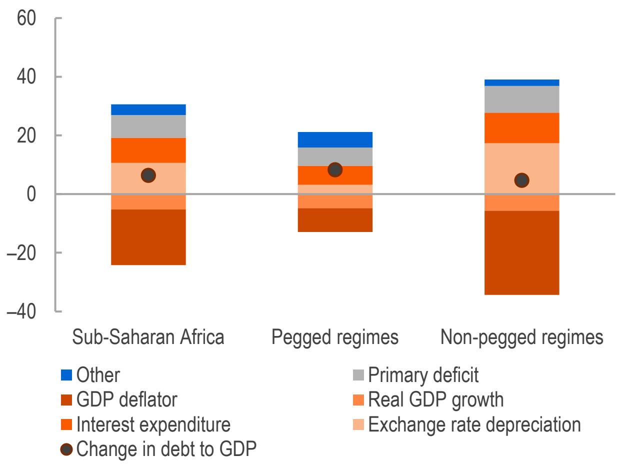
Finally, exchange rate depreciation is associated with a deterioration of trade balance in the near term in the region. In the near term, trade is slow to respond to exchange rate depreciation as goods are invoiced mostly in US dollars and exporters require time to adjust their production despite higher profits while consumers face difficulties finding local substitutes for imports (Figure 5). Over the medium term, the trade balance improves

[4] The impact for the median country was 4.1 percent of GDP. Some of the impact of exchange rate depreciation on debt to GDP was offset by higher inflation.

as countries adjust to new relative prices. However, in sub-Saharan Africa, structural impediments, including a weak business environment and greater share of trade in commodities and agriculture which tend to be less responsive to changes in relative prices, undermine sustained improvements in the trade balance.

Figure 4. Drivers of Changes in Public Debt Stock, 2019–22

(Cumulative change, percentage points of GDP)

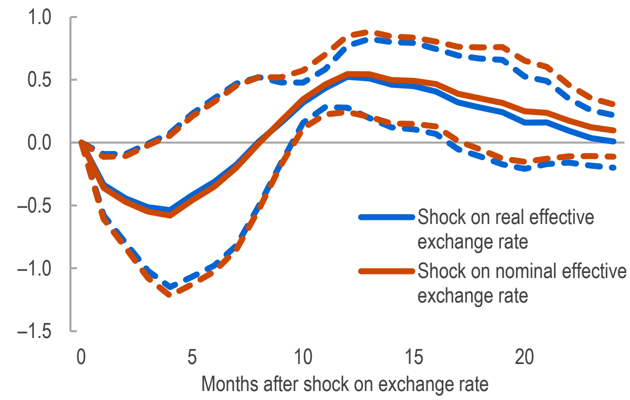


Sources: IMF, World Economic Outlook database; and IMF staff calculations.

Note: For each debt driver, the bar represents its contribution to the change in debt between December 2019 and December 2022, had other drivers remained constant during this period.

Figure 5. Sub-Saharan Africa: J-Curve, Impact of Exchange Rate Depreciation on the Trade Balance

(Impact on difference between log of exports and log of imports)



Source: IMF staff calculations.

Note: The red (blue) bold line represents the cumulative impact of the nominal (real) effective exchange rate depreciation of 1 percent on the difference of the log of exports and log of imports, estimated using local projection methods controlling for commodity prices, shipment costs, and output (both domestic and of trade partners) proxied by the night light indicators. The NEER specification also controls for the change in relative consumer prices. The dotted lines show the 90 percent confidence interval. The sample spans January 2013–June 2022 for 39 countries. Given that imports exceed exports for the median country, estimation results can be interpreted as showing the effect on the trade balance.

In 2022, countries raised interest rates, intervened in foreign exchange markets, and resorted to administrative measures to resist depreciations

Most countries tightened monetary policy. The median interest rate hike was 260 basis points in the region in 2022 as countries sought to fight inflation, which also helped to support their currencies. However, the median rate hike was lower by 90 basis points compared to the median in emerging market and developing economies outside the region.

A number of countries also intervened in foreign exchange markets to resist exchange rate pressures, in part to address the cost-of-living crisis from higher prices. The median depletion of reserves in months of imports was twice as high in sub-Saharan Africa than in other emerging market and developing economies over the course of 2022. With reserves significantly lower—below three months of imports in about 40 percent of non-pegged countries on average during 2022—the degree of intervention slowed down over the course of the year.[5]

With reserve buffers running low, many countries also applied administrative measures to control foreign exchange flows. These measures include multiple currency practices (Nigeria), foreign exchange rationing (Ethiopia, Nigeria), price control through moral suasion or punitive measures in interbank markets, and banning foreign currency transactions for local businesses (Ethiopia). Some countries also resorted to unconventional measures such as buying oil with gold (Ghana).

[5] Foreign exchange sales exceeded purchases in about three-quarters of the non-pegged countries in the first quarter of 2022 and about half of the non-pegged countries in the second quarter of 2022 (based on data from Adler and others 2021).

Exchange rate pressures are difficult to resist for long and call for policy adjustment

Pegged regimes in the region suffered less from the surge in the value of the US dollar in 2022 given their lower share of trade and debt in US dollars. However, many of them lost significant international reserves over the course of the year. As their monetary policy is not fully independent, they need to tighten with the peg country to minimize the risk-adjusted interest rate differential. Fiscal consolidation is also warranted in many of them to adjust external imbalances and to rebuild reserve buffers.

As for non-pegged regimes, in most countries, letting the exchange rate depreciate is necessary to facilitate adjustment to external shocks that are durable, such as changes in terms of trade and higher interest rates in advanced economies. Exchange rate adjustments provide price signals that help all agents in the economy, including the government, to adapt to new external realities. For example, exchange rate depreciations can persuade consumers to switch consumption toward more domestically produced goods and urge governments to prioritize their foreign-exchange-related spending and investors to invest more in export-oriented businesses. However, there are adjustment costs in terms of higher inflation and public debt. In countries where reserve buffers are low, currency depreciation and its associated costs are unavoidable.[6] Policymakers can take several steps to mitigate the adverse impact and contain exchange rate pressures. These include:

- Tighter monetary policy that can keep inflation expectations in check and reduce exchange rate pressure through attracting capital from abroad and stem outflows.
- Fiscal consolidation that will keep public debt sustainable and rein in external imbalances, particularly in countries where fiscal imbalances are key drivers of exchange rate pressures (see April 2023 *Regional Economic Outlook: Sub-Saharan Africa*). Cutting government expenditures that directly or indirectly affect imports can be particularly helpful to lower the demand for foreign exchange—for instance, eliminating fuel subsidies can reduce fuel imports.
- Strengthening the social safety net through well-targeted measures will support the poor, who are more adversely affected by the rise in prices.

Countries with sufficient reserve buffers—very few—could consider foreign exchange interventions to lean against exchange rate pressures if there is significant risk of inflation de-anchoring in the presence of weak monetary framework or shallow foreign exchange market.[7] However, reserves can be depleted quickly if exchange rate pressures are elevated and driven by fundamental forces. Policymakers will need to carefully calibrate their response to ensure that adequate external buffers remain to manage short-term volatility including sudden surges in foreign exchange demand (Gopinath and Gourinchas 2022). These interventions should not be used as a temporary fix in lieu of necessary fiscal and monetary policy adjustments.

In both pegged and non-pegged regimes:

- The use of distortive policies should be minimized. Administrative measures such as foreign exchange rationing, price controls, and multiple currency practices can lead to market distortions and misallocation of resources and create opportunities for corruption. They also may not mitigate the adverse impact. For example, parallel market spreads may emerge or widen that then can be passed through to domestic inflation.
- Support from international financial institutions (including the IMF) can help ease exchange rate pressures. The support not only provides valuable foreign exchange, it also demonstrates policymakers' commitment to economic reforms that will help restore market confidence.

[6] As of the end of 2022, about 40 percent of non-pegged regimes had reserves less than three months of imports, and another 40 percent had reserves between three to five months of imports.

[7] See IMF Integrated Policy Framework, and IMF 2022, which discusses how the Framework applies to sub-Saharan Africa.

References

Adler, Gustavo, Kyun Suk Chang, Rui Mano, and Yuting Shao. 2021. "Foreign Exchange Intervention: A Dataset of Public Data and Proxies." IMF Working Paper 21/47, International Monetary Fund, Washington DC.

Boz, Emine, Camila Casas, Georgios Georgiadis, Gita Gopinath, Helena Le Mezo, Arnaud Mehl, and Miss Tra Nguyen. 2020. "Patterns in Invoicing Currency in Global Trade." IMF Working Paper 20/126, International Monetary Fund, Washington, DC.

Gopinath, Gita, and Pierre-Olivier Gourinchas. 2022. "How Countries Should Respond to the Strong Dollar." IMF Blog, October 14. Washington, DC.

International Monetary Fund. (IMF). 2007. "Managing Large Capital Inflows." In *World Economic Outlook*, Chapter 3, Washington, DC, October.

International Monetary Fund. (IMF). 2022. "Role of Foreign Exchange Interention in Sub-Saharan Africa's Policy Toolkit." In *Regional Economic Outlook: Sub-Saharan Africa—Living on the Edge,* Washington, DC, April.