### Potential Drivers of Post-Reform Parallel Market Premium

Federal Democratic Republic of Ethiopia

Bryan Gurhy, Kyungsuk Lee, and Sandhya Rajyam Garimella

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IMF Selected Issues Papers are prepared by IMF staff as background documentation for periodic consultations with member countries. It is based on the information available at the time it was completed on June 16, 2025. This paper is also published separately as IMF Country Report No 2025/189.

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**ABSTRACT:** A comparative analysis of Ethiopia with Angola, Egypt, and Nigeria highlights three structural factors that may be sustaining the parallel market premium despite exchange rate unification: (i) some remaining current account restrictions, including a 2.5 percent commission payable to National Bank of Ethiopia (NBE) on foreign exchange (FX) sales; (ii) a tightly closed capital and financial account coupled with low returns on Birr denominated assets; and (iii) an underdeveloped financial market, lacking hedging instruments and dominated by a single bank, which weakens competition and reduces market efficiency. While each case has its own distinctive features, Ethiopia's conditions most closely resemble those of Angola during its transition to a more flexible exchange rate regime, where a significant parallel market premium persisted.

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#### **SELECTED ISSUES PAPER**

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Federal Democratic Republic of Ethiopia

Prepared by Bryan Gurhy, Kyungsuk Lee and Sandhya Rajyam Garimella



#### INTERNATIONAL MONETARY FUND

# THE FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA

June 16, 2025

#### **SELECTED ISSUES**

Approved By
AFR Department

Prepared by Bryan Gurhy (MCM), Kyungsuk Lee, and Sandhya Rajyam Garimella (both AFR).

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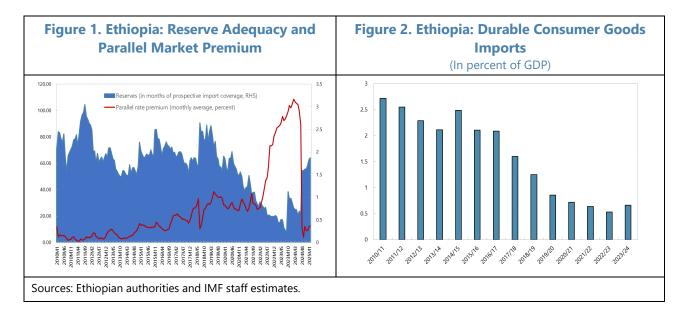
## POTENTIAL DRIVERS OF POST-REFORM PARALLEL MARKET PREMIUM

A comparative analysis of Ethiopia with Angola, Egypt, and Nigeria highlights three structural factors that may be sustaining the parallel market premium despite exchange rate unification: (i) some remaining current account restrictions, including a 2.5 percent commission payable to National Bank of Ethiopia (NBE) on foreign exchange (FX) sales; (ii) a tightly closed capital and financial account coupled with low returns on Birr denominated assets; and (iii) an underdeveloped financial market, lacking hedging instruments and dominated by a single bank, which weakens competition and reduces market efficiency. While each case has its own distinctive features, Ethiopia's conditions most closely resemble those of Angola during its transition to a more flexible exchange rate regime, where a significant parallel market premium persisted.

#### A. Background

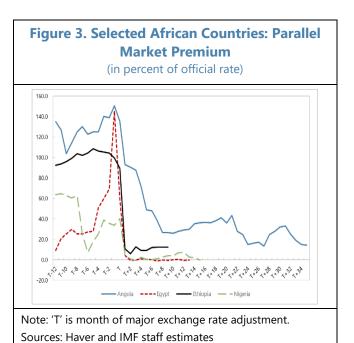
- 1. Before the FX reform, the parallel market premium increased steadily from early 2013 to mid-2022, rising sharply from late 2022. By November 2023, it had surpassed 100 percent and remained elevated through the end of June 2024 (Figure 1). This widening coincided with acute FX shortages and FX controls. Efforts to curb FX demand are reflected in the contraction of imports of durable consumer goods (Figure 2). At the same time, NBE's FX reserves declined steadily as NBE allocated FX for essential imports (fuel). Eventually only fuel, fertilizer and medicine were receiving FX at official rates from NBE and the banking system. FX reserves remained below one month of import coverage from November 2021 to June 2024, except for a brief recovery in October 2023.
- 2. Adoption of a market-determined exchange rate in July 2024 and the removal of most distortive exchange restrictions led to a rapid convergence between official and parallel market rates. The parallel market premium collapsed, reaching near-zero by early September 2024, as the official rate aligned with market conditions. Since then, the premium has increased to approximately 16 percent by late October 2024, then narrowed and stabilized in the single digits until the end of December. By early May, it gradually widened again to around 17 percent. FX reserves increased to approximately US\$4 billion in April 2025, covering nearly two months of prospective imports.
- 3. Several structural factors may help explain the persistence of the parallel market premium following the exchange rate unification. Since the parallel market serves as a clearing mechanism for unmet demand or supply in the official market, several factors can sustain residual pressures:
- Remaining current account restrictions such as limits on the amount of FX that can be bought for particular transactions or high costs associated with accessing official FX channels.
- Capital account controls, particularly on outflows, whose demand is also affected by the financial returns on local currency denominated assets relative to foreign assets.

- An underdeveloped financial market, lacking the depth and instruments (e.g. hedging products) needed to meet diverse investor needs and enable effective competition.
- The following section examines how parallel market premiums behaved during the post-FX reforms period in Angola, Egypt, Ethiopia, and Nigeria—countries that undertook major FX liberalization efforts.



#### B. Comparative Analysis of Structural Features: Angola, Egypt, Ethiopia, and Nigeria

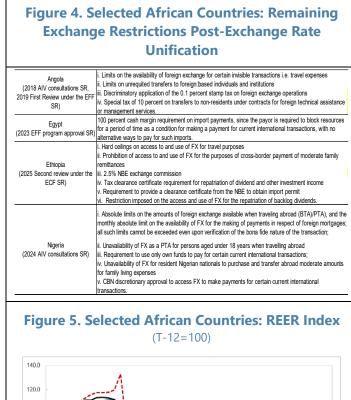
4. Parallel market premia typically decline following major exchange rate **adjustments.** Figure 3 shows that six months after the major exchange rate adjustment, the parallel market premium was 48 percent in Angola, 0.2 percent in Egypt, 12.4 percent in Ethiopia, and 0.3 percent in Nigeria. Angola's premium gradually declined to 15 percent by 34 months after the reform, though it rose during two separate episodes (to a post reform high of 44 percent 21 months after the exchange rate adjustment), indicating a more protracted adjustment process. In contrast, for Egypt, the parallel market premium has remained below 1 percent for the 11 months following the exchange rate adjustment, suggesting a smoother and more sustained post-reform stabilization.

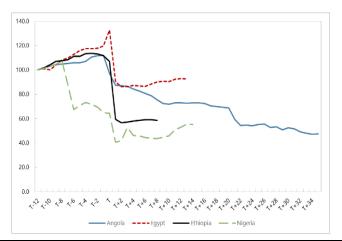


#### Remaining Exchange Restrictions for Current Account Transactions

# 5. Even after major FX reforms that eliminate broad-based FX rationing, some exchange rate restrictions on current account transactions are often retained.

Angola, Ethiopia, and Nigeria maintained some exchange rate restrictions on current account transactions while Egypt retained one such restriction (Figure 4). These remaining restrictions typically limit access to FX for specific current account transactions or increase the cost of securing FX, but they differ from earlier, broad-based FX rationing. While they may contribute to some residual demand in the parallel market, their macroeconomic impact appears modest. This is supported by the observation that the REER has remained stable for Egypt, Ethiopia and Nigeria while, given less initial adjustment, it continued to depreciate slowly in Angola during the post-unification period, suggesting that the official rate broadly reflects changes in international prices (Figure 5). Additionally, the types of current account transactions affected represent only a small proportion of consumer spending, carrying low weights in CPI baskets, further moderating their potential impact on price distortions and FX pressures.





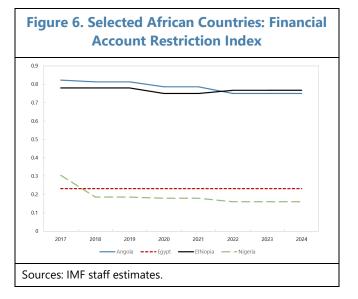
Note: 'T' is month of major exchange rate adjustment. Sources: IMF AREAER and IMF staff estimates

#### Tightly Closed Financial Account and Relative Attractiveness of Local Currency Asset

6. The extent of capital and financial account restrictions varies significantly across countries following ER reforms. Angola and Ethiopia have imposed stricter controls on the capital and financial accounts of the BOP than Egypt and Nigeria. The Financial Account Restriction Index (FARI), based on information in the IMF Annual Report on Exchange Arrangements and Exchange Restrictions, indicates that Angola and Ethiopia have regulations on approximately 70 to 80 percent

of total capital account transactions, whereas Egypt and Nigeria have regulations on only 10-20 percent of total capital account transactions (Figure 6).

7. **Demand for FX in the parallel** market, intended to bypass capital controls, is also influenced by the relative attractiveness of foreign currencydenominated assets compared to local currency-denominated assets. One way to evaluate this is by comparing the expected yield of overseas investments, adjusted for anticipated inflation and exchange rate changes, with the expected real yield of local



currency-denominated assets. This analysis resembles an assessment of the degree of deviation from uncovered interest rate parity, which posits that the expected rates of return on identical assets in two different countries, adjusted for exchange rate changes, should be equal. The difference in expected real yield between the two assets can be calculated as follows, using realized values to approximate expected inflation and exchange rate changes:

$$\Delta = \left\{ \left( R_{T-bill} - R_{inflation \, in \, US} \right) + \left( \frac{R_{forward}}{R_{spot}} - 1 \right) \right\} - \left( R_{local \, yield} - R_{inflation \, in \, local \, economy} \right)$$

Where:

 $R_{T-hill} = US$  3-month T- Bill rate

 $R_{inflation in US} = Realized$  3-month forward inflation rate in US

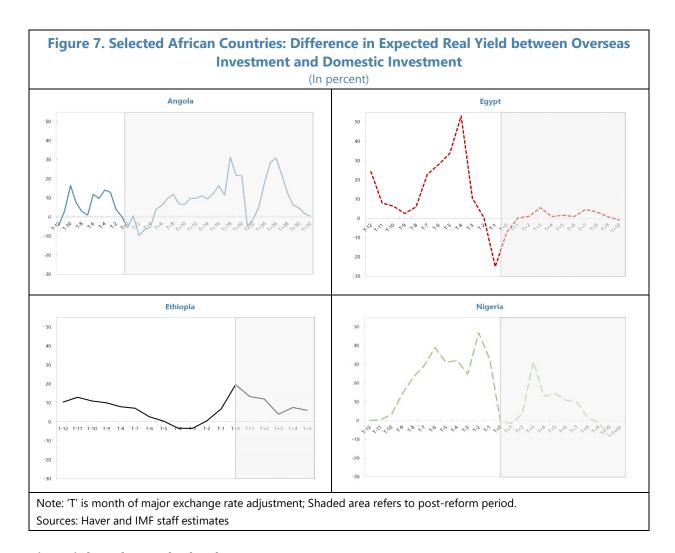
 $R_{spot} = Spot parallel market rate$ 

 $R_{forward}$  = Realized 3-month forward parallel rate

 $R_{local\ vield}$  = Interest rate on saving deposits in local currency

 $R_{inflation in local economy} = Realized 3-month forward inflation rate in the four countries$ 

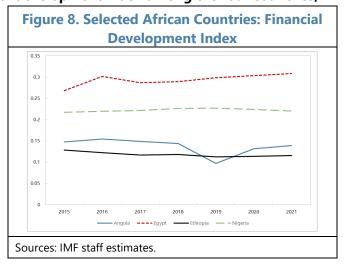
A positive delta ( $\Delta$ ) suggests higher expected returns from overseas investments than those from domestic investments, increasing incentives for capital outflows via the parallel market. This dynamic can place additional pressure on the premium, even after current account liberalization. A positive delta continued in Ethiopia for five months for which data are available following the FX reforms (Figure 7). This primarily reflected low nominal yields, as some financially repressive measures remained in place even as inflation was higher, in the mid-to-high teens. To eliminate an expectation of depreciation, domestic interest rates need to compensate for the inflation differential plus some risk premium as well as nominal yield from foreign investment.



#### Financial Market Underdevelopment

#### 8. Ethiopia ranks lowest on the financial development index among the four countries,

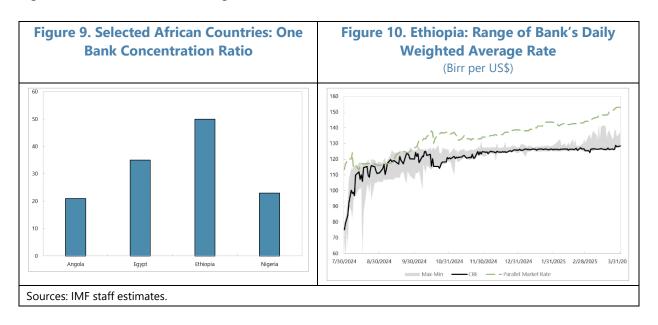
slightly below Angola. The index provides a relative ranking of countries based on the depth, access, and efficiency of their financial institutions and markets. In Ethiopia, the lack of hedging instruments against exchange rate risk is cited by importers as one of reasons why they resort to the parallel market. Importers fear sharp depreciation between the time letters of credit (LCs) are opened and when payments are settled, particularly since deferred LCs are commonly used instead of sight LCs or advance payments (Figure 8). This is further amplified



by a lack of natural counterparties. Importers may wish to hedge their FX exposures, but exporters

expecting depreciation have little incentive to do so. Meanwhile, foreign investors, who could act as structural counterparties, are absent due to capital account restrictions that limit access to Birrdenominated assets.

9. A lack of competition among banks can result in insufficient FX mobilization from FX earners, such as exporters and recipients of inward remittances. This creates unmet FX demand, which could drive demand for FX in the parallel market. Ethiopia has the highest one bank concentration ratio among the sample, with the state-owned Commercial Bank of Ethiopia (CBE) accounting for approximately half of the total bank assets in the sector (Figure 9). While CBE's financial position has been strengthened and its mandate is being reformed to give a clearer commercial focus, it has a net short FX position as a result of its legacy as a policy bank, potentially reducing incentives to mobilize FX given the depreciation risks and the bank's dominant position. While direct evidence on banks' competitive strategies is not available, other banks may prefer not to diverge from the market leader, opting to maintain a business model that yields high fees on low volumes, rather than a more competitive model with lower fees and profitability deriving from a higher volume of transactions (Figure 10).



#### C. Conclusions

10. Comparative analysis of structural features suggests that a moderate parallel market spread is likely to persist in Ethiopia. Structural features such as exchange rate restrictions, tightly closed financial account, limited financial instruments, and high bank concentration continue to drive unmet FX demand into the parallel market. Ethiopia shares several characteristics with Angola during its transition to a floating exchange rate regime—a period when Angola's parallel market premium was higher than in Egypt and Nigeria. Other deeper structural factors in Ethiopia—notably concerns about property rights, security, and conflict also play a role is encouraging outflows of wealth through the parallel market.

Policy efforts should continue to focus on developing a well-functioning and unified 11. FX market to enable efficient and transparent FX allocation. A key priority is the phased removal of remaining exchange rate restrictions on current account transactions which increase the costs of using the formal market, or leave some demand for FX unsatisfied, driving parallel market demand. Positive real interest rates that make holding Birr-denominated assets more attractive will reduce incentives to use the parallel market to hold wealth in FX. In the longer term, a well-sequenced opening of the financial account can be considered, focusing first on strong regulatory and supervisory capacity and ensuring the financial sector can manage cross-border flows soundly, and attracting long-term capital flows before considering facilitating shorter-term investors. Effective enforcement of net open position (NOP) limits and robust FX exposure monitoring are critical regulatory prerequisites for safely managing cross-border flows during financial account liberalization. Deepening the financial market, e.g., growing liquidity in interbank money and FX markets, and creating the necessary pre-conditions to develop hedging instruments would help reduce the demand for FX in the parallel market. Finally, enhancing competition in the banking sector, notably through more transparency on fees, commissions, and pricing, and including through possible participation by foreign banks, would allow customers to choose the most competitive bank, improving price discovery and the efficiency of FX intermediation.

#### References

- Agenor, Pierre-Richard (1992). "Parallel Currency Markets in Developing Countries: Theory, Evidence, and Policy Implications"; Essays in International Finance, No.188. Princeton University.
- Ghei, Nita, and Kamin, S.B. (1996) "The Use of the Parallel Market Rate as a Guide to Setting the Official Exchange Rate", International Finance Discussion Paper, Board of Governors of the Federal Reserve System.
- Gray, Simon T. (2021). "Recognizing Reality: Unification of Official and Parallel Market Exchange Rates"; IMF Working Paper No. 21/25, International Monetary Fund, Washington, D.C.
- Hauner, David, Lee, J., and Takizawa, H. 2010 "In Which Exchange Rate Models Do Forecasters Trust?"; IMF Working Paper No. 11/116, International Monetary Fund, Washington, D.C.
- International Monetary Fund (IMF), 2024a "Nigeria-Staff Report for the 2024 Article IV Consultation"; IMF Country Report No. 24/102, International Monetary Fund, Washington, D.C.
- International Monetary Fund (IMF), 2024b "Egypt-Third Review Under the Extended Arrangement Under the Extended Fund Facility"; IMF Country Report No. 24/274, International Monetary Fund, Washington, D.C.
- International Monetary Fund (IMF), 2023a "Egypt-Request for an Extended Arrangement Under the Extended Fund Facility"; IMF Country Report No. 23/2, International Monetary Fund, Washington, D.C.
- International Monetary Fund (IMF), 2023b "Nigeria-Staff Report for the 2022 Article IV Consultation"; IMF Country Report No. 23/93, International Monetary Fund, Washington, D.C.
- International Monetary Fund (IMF), 2020 "Angola-Third Review Under the Extended Arrangement Under the Extended Fund Facility"; IMF Country Report No. 20/281, International Monetary Fund, Washington, D.C.
- International Monetary Fund (IMF), 2018 "Angola–Request for an Extended Arrangement Under the Extended Fund Facility"; IMF Country Report No. 18/370, International Monetary Fund, Washington, D.C.
- Lafrance, Robert and Schembri, L. (2002). "Purchasing-Power Parity: Definition, Measurement, and Interpretation"; Bank of Canada Review, Autumn 2002, Bank of Canada.
- Phylaktis, Kate, and Kassimatis, Y. (1997). "Black and Official Exchange Rate Volatility and Foreign Exchange Controls"; Applied Financial Economics.
- Tanner, Evan Tanner, 1998 "Deviation from Uncovered Interest Parity: A Global Guide to Where the Action Is"; Working Paper No 98/117"; International Monetary Fund, Washington, D.C.