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APPLYING THE INTEGRATED POLICY FRAMEWORK TO LOW-INCOME COUNTRIES: SHOCKS, FRICTIONS, AND POLICY CONSIDERATIONS

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APPLYING THE INTEGRATED POLICY FRAMEWORK TO LOW-INCOME COUNTRIES: SHOCKS, FRICTIONS, AND POLICY CONSIDERATIONS

EXECUTIVE SUMMARY

The Integrated Policy Framework (IPF) assists IMF staff in providing advice on the joint use of foreign exchange intervention (FXI), macroprudential measures (MPMs), and capital flow management measures (CFMs), alongside standard monetary and fiscal policies. This note provides overarching considerations in applying the IPF to low-income countries (LICs), building on previous Fund advice.

LICs typically experience strong IPF frictions. They usually have shallow FX markets, exposing them to risks from capital outflows. While foreign exchange (FX) mismatches on bank balance sheets are often contained, high loan dollarization can pose balance sheet risks for borrowers. Public debt in foreign currencies also increases vulnerability to exchange rate fluctuations through FX mismatches. Additionally, poorly anchored inflation expectations mean that abrupt depreciations can disrupt price stability.

These IPF frictions can provide a case for the use of FXI and CFMs, but advice needs to account for other typical LIC characteristics, such as low FX reserves, weak monetary policy transmission, and limited operational capacity. Moreover, LICs often face deep governance challenges that weaken the credibility of the nominal anchor, and that may be intensified when FXI or CFMs are used inappropriately.

Taken together, these characteristics can make any regime more difficult to manage effectively: they suggest that free floats and open capital markets can be difficult to sustain but also call for caution in using FXI and CFMs. The mix of frictions alongside governance and capacity constraints may also explain the prevalence of intermediate exchange rate regimes in LICs.

Against this backdrop, the note sets out three sets of considerations for the staff advice in LICs. First, policymakers should ensure that they use FXI, CFMs, and MPMs in a way that strengthens rather than undermines their perceived commitment to their nominal anchor and to macroeconomic and financial stability. Critical co- and pre-requisites may include a credible and decisive commitment to the necessary monetary and fiscal adjustments, a clear prioritization of central bank objectives centered on the nominal anchor, and operational independence.

Second, the advice on FXI, CFMs, and MPMs needs to be adapted to account for constraints on the ability to implement these policies. Low reserves can reduce the potential for the active use of FXI, while capacity constraints may call for simpler and more time-invariant uses of MPMs and CFMs.

Third, advice should take a medium-term perspective, going beyond the tactical use of tools to achieve short-term stabilization. Critically, decisions about tool use will have implications for the evolution of the underlying frictions and of the regime itself, as when excessive use of FXI in a nascent float raises questions about the nature of the nominal anchor. Thus, advice on tactics needs to be embedded within a strategic agenda. Such an agenda includes advice on how to strengthen the nominal anchor or facilitate the transition to a new anchor, including through governance changes and efforts to improve policy transmission. Complementary steps to strengthen fiscal frameworks and achieve more sustainable debt dynamics are also vital to reduce fiscal dominance risks and enable more coherent policy settings. Finally, financial sector reforms are needed to reduce financial frictions and increase resilience.

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INTRODUCTION

1. This note provides considerations for the application of the Integrated Policy Framework (IPF) to low-income countries (LICs).

The IPF is a general conceptual and practical framework for helping IMF staff provide advice to countries on the joint use of foreign exchange intervention (FXI), macroprudential measures (MPMs), and capital flow management measures (CFMs), in addition to the standard toolkit of monetary and fiscal policy. This framework is already shaping the advice for both advanced economies (AEs) and emerging market economies (EMEs) based on an analysis of frictions and shocks. The considerations provided in this note address how the unique features of LICs should influence how staff apply the existing Fund guidance on the use of policy tools.

2. The analysis in this note suggests that all frictions that are in the focus of the IPF are highly relevant in LICs.¹ FX markets are often shallow, generating the potential for swings in risk premia from capital inflow and outflow shocks, including from resident outflows. Inflation expectations in LICs are often poorly anchored, manifesting in a high pass-through of changes in exchange rates to inflation and inflation expectations. A lack of trust in the local currency can give rise to a preference for savings in dollars, which can result in a high degree of credit market dollarization, in turn creating unhedged FX mismatches for borrowers that pose risks in the event of large swings in the exchange rate. Therefore, in principle, there are strong arguments for the use of FXI, CFMs, and MPMs under each of the three use cases described in IMF (2023a).

3. However, advice needs to also consider the governance challenges present in LICs. The commitment to any given de jure nominal anchor is often weak.² There is often a lack of clarity about the primary objective of policymakers' mandates and how that objective should be prioritized over other potential objectives. Moreover, LIC central banks may not be given strong operational independence in carrying out their mandates. Beyond this, central banks' actions may be subject to fiscal dominance, especially in the context of weak fiscal frameworks and high public debt levels.

4. LICs may also face many impediments to their ability to implement policies effectively. LICs typically have low reserves, which can constrain their ability to use FXI even in circumstances

¹ This note's analysis includes the 69 LICs identified in the IMF (2022c). These LICs are: Afghanistan, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cabo Verde, Cambodia, Cameroon, Central African Republic, Chad, Comoros, Republic of Congo, Côte d'Ivoire, Democratic Republic of the Congo, Djibouti, Dominica, Eritrea, Ethiopia, The Gambia, Ghana, Grenada, Guinea, Guinea-Bissau, Haiti, Honduras, Kenya, Kiribati, Kyrgyz Republic, Lao P.D.R., Lesotho, Liberia, Madagascar, Malawi, Maldives, Mali, Marshall Islands, Mauritania, Micronesia (Fed. States of), Moldova, Mozambique, Myanmar, Nepal, Nicaragua, Niger, Papua New Guinea, Rwanda, Samoa, São Tomé and Príncipe, Senegal, Sierra Leone, Solomon Islands, Somalia, South Sudan, St. Lucia, St. Vincent and the Grenadines, Sudan, Tajikistan, Tanzania, Timor-Leste (Dem. Rep. of), Togo, Tonga, Tuvalu, Uganda, Uzbekistan, Vanuatu, Yemen, Zambia, and Zimbabwe.

² Countries' de jure nominal anchor refers to the information on this in the Annual Report on Exchange Arrangements and Exchange Restrictions (AREAER). This report is based on an annual survey with member countries in which countries are asked what serves as their nominal anchor, with choices being "inflation targeting framework," "exchange rate anchor," "monetary aggregate target," or "other monetary framework."

where IPF models would point to the use of FXI as the optimal response. Moreover, monetary policy transmission is weak, owing to underdeveloped local currency and debt markets. In addition, a lack of data and policy analysis capacity may stand in the way of using policies appropriately when responding to shocks.³

5. These three aspects—strong frictions, weak governance, and low capacity—can shape the benefits and costs of deploying FXI, CFMs, and MPMs in LICs. They may caution against the active use of tools when such use would aggravate governance concerns or further deepen frictions. However, the use of FXI, CFMs, and MPMs can also play a useful stabilizing role and strengthen credibility. For instance, well-targeted MPMs can reduce FX mismatches and mitigate the risks posed by large exchange rate depreciations; the improved monetary policy tradeoffs should in turn strengthen central bank credibility. Keeping in place long-standing capital account restrictions may be advisable when their presence helps maintain reserves coverage, or when their lifting may weaken the authorities' ability to defend a peg. Furthermore, while the use of FXI can obscure policy objectives in a nascent inflation targeting regime, risking a weakening of the new nominal anchor, FXI is naturally among the policy tools used in pegs or under intermediate exchange rate regimes.⁴

6. To ground a deeper policy discussion, the note first sets out the economic context facing LICs. The section on the economic context describes in detail the types of IPF frictions and shocks present in LICs. It then charts the range of monetary and exchange rate regimes prevailing in LICs, noting that neither regimes based on floating exchange rates nor hard pegs are common, while most LICs operate intermediate regimes where the exchange rate serves as the nominal anchor but allow for parity adjustments in response to shocks. The preference for using the exchange rate as a nominal anchor over certain periods may stem from various factors. For instance, many LICs experience a weak transmission of the policy rate, while the exchange rate often exerts a strong and direct influence on inflation. Additionally, a preference for adjusting the exchange rate parity under specific conditions may reflect the exposure of LICs to large and persistent fundamental external shocks rendering the previous parity unsustainable or excessively costly to maintain. Finally, the section sets out a definition of policy coherence and provides indicators of incoherent policy frameworks and settings.⁵

³ The Fund has supported efforts to improve data availability in LICs, notably through the enhanced General Data Dissemination System (e-GDDS). As of early 2022, many participants—including several fragile states—were publishing data through National Summary Data Pages, with increased adoption of machine-readable formats. See IMF (2022f).

⁴ The most recent IMF policy guidance tailored for LICs dates to Mussa and others (2000). That paper notes the merits of various sorts of pegs for some types of LICs, along the lines of standard common-currency area arguments and the challenges of running a float, especially a free float, in a developing country subject to major supply shocks. It does not provide micro-founded friction-based advice covering the full range of available tools.

⁵ While other structural factors—such as trade and investment policy regimes, demographic shifts (including out-migration), and broader institutional reforms—can significantly affect macroeconomic dynamics and the transmission of shocks, they are not explicitly incorporated into the current analytical structure of the IPF. As such, these issues fall outside the scope of the present note. Nonetheless, these dimensions are important for framing the medium-term outlook in LICs and can complement IPF-based analysis when formulating policy advice.

7. The note then offers considerations for the IPF policy advice in LICs. These considerations do not replace existing and established principles for the advice on MPMs, CFMs, or FXI. Rather, they adapt such advice to take account of three sets of features—strong frictions, weak governance, and low capacity—that are often present in LICs, as explained above.⁶

8. The first two considerations emphasize the need to strengthen policy coherence. Policy coherence is defined as arising when policy choices are consistent with the central bank’s primary policy goals centered around maintaining the nominal anchor and supporting macroeconomic and financial stability. In addition to clarity about goals and how they are prioritized, policy coherence requires the central bank to have the operational independence needed to achieve them, that the fiscal position is sustainable so that the central bank can implement needed policies without putting debt on an explosive path. Given substantial governance and capacity challenges in LICs, policymakers should be particularly careful to use FXI, CFMs, and MPMs in a way that strengthens rather than undermines policy coherence: this makes the tools more effective and also boosts central bank credibility. Conversely, the inappropriate use of these tools—including to substitute for warranted monetary or fiscal adjustments—can lead to confusion about policy objectives and how they are prioritized, making the tools less effective and undercutting the credibility of the framework. It can also lead to persistent exchange market pressure and balance of payments crises.

9. The next two considerations focus on how the use of policy tools should be adapted to take account of low FX reserve holdings and weak institutional capacity. When a paucity of capital inflows makes it difficult for LICs to accumulate reserves sufficient for use to respond to capital outflow shocks, more decisive use of macroeconomic policy levers may be required across all exchange rate regimes. A weak capacity to wield policy tools in response to shocks, such as from a lack of data, can also argue for the greater preemptive use of policy tools, including MPMs or CFMs.

10. Finally, the last three considerations argue that advice should take a medium-term perspective, going beyond the tactical use of tools to achieve short-term stabilization. Such an approach involves providing advice on how any given nominal anchor can be strengthened or a transition to a different anchor facilitated. It would also often involve advice on how to strengthen central bank independence and accountability. Strengthening of fiscal frameworks, including revenue mobilization, is often an important step towards achieving more sustainable debt dynamics and reducing fiscal dominance, thereby enabling more coherent policy settings in the future. This medium-term perspective should also recognize that IPF frictions can evolve depending on the monetary policy regime and the use of additional tools, creating complex interdependencies.

⁶ The considerations pertaining to the use of FXI are consistent with the principles on the use of FXI as part of the policy mix, as articulated in IMF (2023a), which in turn builds on modelling work by Basu and others, (2020), Basu and Gopinath (2024), and Adrian and others, (2021). The considerations pertaining to CFMs are based on the Fund’s Institutional View on the Liberalization and Management of Capital Flows (IV) (IMF (2012)), as revised in (IMF (2022)), in a manner that incorporates IPF findings. The considerations for the use of MPMs are based on the Fund’s macroprudential policy framework (IMF (2013)) and IMF (2014)), including its considerations for LICs (IMF (2014a)). This note is also consistent with other IPF staff guidance that is in progress (e.g., IPF advice for MPMs, and for fixed exchange rate regimes).

This potential circularity applies to all the IPF frictions analyzed in this note and underscores the need for a medium-term reform agenda that focuses on moderating these frictions.

11. These considerations can provide a basis for extending the IPF advice to LICs, as well as for further research. The considerations lay the groundwork for future research that may address LICs' complex challenges and provide more granular recommendations on how the IPF can apply to hard pegs and intermediate regimes. Annex I provides an extended discussion and evidence of the economic context in LICs, elaborating on Section II. Annex II provides supporting quantitative indicators, highlighting LIC-specific considerations, largely based on IMF (2023a) and the Metrics-Database.

OVERVIEW OF ECONOMIC CONTEXT IN LOW-INCOME COUNTRIES (LICs)

12. This section provides an overview of the key features of the economic context in LICs that are relevant for IPF-based policy advice. These features include the nature of shocks and severity of frictions, the exchange rate regimes and monetary policy frameworks, the use of policy tools beyond monetary and fiscal policies, and a definition and indicators of policy incoherence. A more detailed discussion of the empirical evidence is presented in Annex I.

A. Shocks and IPF Frictions

13. The prevalence of fundamental and non-fundamental shocks may be notably higher in LICs than in AEs and EMEs. The distinction between fundamental and non-fundamental shocks is important for the IPF advice, as the former require greater adjustments to monetary and fiscal policies relative to other tools (see Box 1). While the relative frequency of fundamental shocks varies across LICs due to substantial heterogeneity, a high exposure to supply shocks as well as volatile fiscal policy and political environments can render fundamental shocks prevalent in many LICs. Many LICs have lower exposure to non-fundamental shocks that arise from non-resident short-term portfolio outflows because of a lower degree of capital account openness and financial integration, but other LICs are likely to have significant exposure to such flows. Moreover, many LICs have high exposure to non-fundamental shocks that arise from residents using FX saving vehicles, unless outflow CFMs can contain them. Many LICs may be prone to compound crises, where multiple fundamental and non-fundamental shocks coincide and interact.

14. Fiscal policy is often a source of volatility rather than acting as a stabilizing policy lever. Low revenue collection, a high reliance on volatile commodity-based revenues and aid flows, and political volatility contribute to an environment where fiscal shocks are often large and counter-cyclical policies are infeasible. For more financially integrated LICs, access to external borrowing is typically pro-cyclical, similar to lower-capacity and poorer EMEs. Moreover, a substantial portion of capital flow volatility may stem from fundamental factors if there are frequent and large shifts in expectations about fiscal policy.

Box 1. Fundamental and Non-Fundamental Shocks

Fundamental shocks are those that require macroeconomic adjustments to restore stability, irrespective of whether financial frictions exist. The current account may be subject to unexpected movements in export or import values arising from changes in tourism flows, commodity prices, agricultural output, and supply chain reconfiguration. The capital account may be exposed to shocks to aid flows, remittances, and FDI. Reassessments of fiscal sustainability, political risks, and conflict prevalence are also relevant. Changes in global interest rates are also fundamental shocks because they change the country's intertemporal budget constraint. Monetary and fiscal policy adjustments are warranted after such shocks, especially if they are large and persistent, and the use of FXI, CFMs, and MPMs should not substitute for those adjustments.

Non-fundamental shocks result from specific financial market imperfections, like “noise trader shocks” (DeLong and others (1990)), which are generally temporary shifts in sentiment of some investors. These investors may be residents or non-residents. In the context of shallow financial markets, these shifts can cause short-term fluctuations in the exchange rate without necessarily having an impact on its medium-term value. In the context of FX mismatches, both fundamental and non-fundamental shocks can cause exchange rate movements which tighten external borrowing constraints and trigger systemic financial stability risks and a sharp slowdown. Addressing these shocks with tools like FXI and/or CFMs can give monetary and fiscal policy more flexibility to pursue traditional objectives, if used in line with the principles on the use of FXI (IMF (2023a)) and the IV, respectively.

Distinguishing between fundamental and non-fundamental shocks can be challenging in real time. These shocks often occur simultaneously and may be correlated, such as when changes in fundamentals serve as focal points for non-fundamental and panicked changes in investor sentiment, particularly if policy responses are suspected to be inadequate (Calvo and Mendoza (2000), and Hofmann and others, (2022)). In some cases, structural changes in FX markets can change the correlation of such shocks, e.g., if a country loses global banking relationships and foreign investors over time so the FX market becomes shallower, fundamental shocks may become more likely to generate a non-fundamental risk-off or panic episode. Country-specific analysis and judgment are crucial for providing tailored advice.

15. Shallow FX markets are a common feature in LICs (use case A in IMF (2023a)).

Measures of FX market shallowness, such as the observed exchange rate volatility and the level of the uncovered interest parity (UIP) premium, tend to be higher in LICs than in EMEs. Shallow FX markets may be attributed to structural factors, such as a low number of domestic participants, and can be exacerbated by the prevalence of long-standing CFMs and frequent use of FXI. In this context, even small shocks can significantly impact the exchange rate. However, low capital mobility can also make it more feasible to maintain a peg, as far as interest rate differentials cannot be arbitrated away easily, and even small quantities of FXI can be effective in such circumstances. Another important implication is that contrary to the outcome with deep markets, expansionary fiscal policy is more likely to depreciate the exchange rate.

16. FX mismatches are present in some LICs and may operate differently than in EMEs (use case B). Private sector FX debt is lower in most LICs than in EMEs, and short-term external debt is also lower in LICs, which reduces the immediate pressure for refinancing in case of a sharp currency depreciation. However, some LICs do face high private FX debt exposure. Moreover, significant financial dollarization of both savings and loans can create mismatches at the borrower or country level, leading to considerable vulnerability to exchange rate movements. Additionally, public external debt may constitute a significant source of currency mismatches for LICs. While

concessional debt is less susceptible to sudden stops, a large exchange rate depreciation could nonetheless increase the debt service burden, threatening debt sustainability and creating vulnerabilities in the financial system through the sovereign-bank nexus.

17. Inflation expectations are often weakly anchored in LICs (use case C). Central banks in LICs often struggle to establish clear nominal anchors and, more broadly, to achieve monetary policy credibility. Structural factors and weak institutional frameworks also undermine monetary transmission. Poor fiscal frameworks and weak governance often lead to monetary policy being subject to strong fiscal dominance. In this context, exchange rate pass-through to inflation and inflation expectations is measured to be higher in LICs than in EMEs. As a result, sharp exchange rate movements can de-anchor inflation expectations and threaten price stability.

B. Exchange Rate Arrangements and Monetary Policy Frameworks

18. Most LICs adopt intermediate exchange rate regimes, and many designate the exchange rate as the nominal anchor.⁷ LICs have heterogeneous exchange rate regimes. 78 percent of LICs favor intermediate regimes, with 13 percent using a hard peg and only 9 percent using de facto floating regimes. Meanwhile, monetary policy frameworks are complex and evolving. 8 percent of LICs employ an inflation targeting framework, and 26 percent implement money targets. Policy frameworks can be difficult to understand and communicate, impairing the transmission of monetary policy signals and credibility. Consequently, the exchange rate is often used as a nominal anchor, with 49 percent of LICs designating the exchange rate in this way (see Box 2 and Figures 19 to 22 in Annex I).

19. LICs face significant challenges in developing and implementing effective monetary policy frameworks. Achieving a transparent, well-communicated, and forward-looking monetary policy framework remains challenging for many LICs. The transmission of policy interest rates even to interbank market rates can be weak due to limited operational capacity of the central banks, while the transmission to deposit rates may also suffer from the lack of competition in concentrated markets. Furthermore, the transmission via the exchange rate channel can be hampered by high levels of dollarization, and transmission to long rates constrained by limited financial development. Money targets are part of the de jure regime in several LICs, but mostly imperfectly signal the direction of monetary policy rather than serve as a nominal anchor, with countries often also engaged in managing their exchange rate. As part of the broader developmental process, most LICs are engaged in efforts to deepen and strengthen their financial systems, and to modernize and improve the functioning of their monetary policy frameworks. This is especially the case for countries with nascent, or incipient, floating regimes.

⁷ For the purposes of this note, LICs are grouped into three broad de facto exchange rate regimes based on the IMF's Annual Report on Exchange Arrangements and Exchange Restrictions (AREAER (2022a)): (i) floats, which include both "floating" and "free floating" regimes; (ii) intermediate regimes, corresponding to the "soft pegs" and "other managed arrangements" categories; and (iii) hard pegs, including "currency boards" and "no separate legal tender."

Box 2. The Exchange Rate as a Nominal Anchor

LICs often opt for regimes where the exchange rate is a nominal anchor. Article IV of the IMF's Articles of Agreement enshrines countries' right to choose their exchange rate regime in such a manner that assures orderly exchange arrangements and promotes a stable system of exchange rates. Most LICs opt for intermediate regimes, where the exchange rate can be a nominal anchor, but the parity is occasionally changed; in hard pegs, the exchange rate parity is credibly fixed.

The preference for the exchange rate as a nominal anchor may be motivated by the economic context in LICs. The choice may be driven by a mix of the following factors:

- **Impediments to monetary policy.** Operational challenges may limit the transmission of the domestic policy rate to financing conditions and aggregate demand, while by contrast the exchange rate may have a strong direct influence on inflation via import prices. Moreover, weak central bank independence and the potential for fiscal dominance, e.g., monetary financing, can reduce the credibility that monetary policy will be set appropriately. Whether the shock is domestic or external in origin, fixing the exchange rate against an anchor country can "import credibility" from that country.
- **Limited benefits from exchange rate flexibility.** For some shocks, especially if the set of policy tools is constrained, the prevalence of IPF frictions can limit some of the benefits of exchange rate flexibility. First, in those time periods when a large portion of shocks are non-fundamental (use case A), the appropriate degree of exchange rate flexibility may be low even under a floating regime. Second, if loan dollarization and FX mismatches are important (use case B), and if preemptive MPMs and CFM/MPMs are not available or effective enough to contain them, the size of the exchange rate depreciation may have to be limited after large shocks, to avoid excessively worsening the balance sheets of FX borrowers. Third, if central bank credibility is weak enough that large exchange rate movements generate a strong pass-through to inflation expectations (use case C), it may be appropriate to limit the exchange rate movement using FXI if that FXI does not itself generates large costs.

The economic context in LICs may also argue for allowing exchange rate flexibility. The exposure of LICs to large and persistent fundamental external shocks in the context of price/wage stickiness can make exchange rate flexibility beneficial for macroeconomic and financial stability. Additionally, institutional constraints may make it infeasible to undertake the deep fiscal and monetary policy adjustments necessary to restore domestic and external stability in the absence of parity adjustment. In this context, maintaining a given parity may be excessively costly to maintain and trigger a balance of payments crisis, especially if FX reserves are limited.

However, in peg regimes, changes in the exchange rate parity are subject to additional trade-offs. In such regimes, adjusting the parity tends to undermine the credibility of the peg as a nominal anchor, so a high bar may be placed for such adjustments.

The category of intermediate regimes contains a wide range of variation which is relevant for the design of policy advice. Depending on the kind of intermediate regime, the parity may be set in terms of an anchor currency or a basket of currencies, its permitted band of variability may be narrow or broad, and it may be adjusted either in a discretionary manner or along a pre-committed path. These regimes may have different degrees of policy coherence, e.g., they may be managed in a coherent manner if the warranted macroeconomic policy adjustments are made and the nominal anchor is clear, but they may become incoherent after large shocks. These regime characteristics would influence the formulation of appropriate policy advice.

20. The effectiveness of monetary policy may be hindered by governance issues and fiscal financing. Central bank independence may be elusive. Poor fiscal frameworks and weak governance often lead to monetary policy being subject to strong fiscal dominance. Many LICs allow direct financing of government deficits in some form, fostering broad-based fiscal dominance. In such circumstances, fiscal dominance may be associated with restrictions and political pressures on central bank's ability to raise its policy rate. Furthermore, persistent large-scale direct financing at below market rates weakens the central bank's balance sheet and ability to ensure price stability.

21. LICs frequently use FXI and CFMs in the operation of their exchange rate regimes, in a context where FX reserves are low. Available data—based in part on staff-constructed proxies due to limited official reporting—indicate that FXI use is similar in LICs and EMEs and across regime groups. However, since FX inflows received by the private sector are less abundant, LICs typically face greater challenges in accumulating reserves, resulting in reserve adequacy that is typically lower compared to EMEs. Moreover, LICs exhibit a higher prevalence of CFMs than EMEs, reflecting their need to mitigate vulnerabilities stemming from underdeveloped financial markets, limited reserves, and external shocks. While maintaining CFMs can enhance FXI effectiveness and allow central banks to adjust monetary policy while keeping the exchange rate stable, CFMs may also lead to the emergence of parallel exchange rates. LICs may also use longstanding exchange restrictions and multiple currency practices (MCPs) to limit the demand for FX as part of the operation of their exchange rate regimes. These measures are outside the scope of the IPF.⁸

C. Policy Incoherence

22. Policy coherence arises when policy objectives related to macroeconomic and financial stability are clear and policy tools are used in a manner consistent with these objectives, with warranted adjustments in monetary and fiscal policies being made. In addition to clarity about goals and how they are prioritized—centered on supporting the nominal anchor and macroeconomic and financial stability—policy coherence requires the central bank to have the operational independence needed to achieve them. Moreover, the fiscal position must be sustainable. This allows the central bank to implement needed policy actions—perhaps involving a sharp rise in interest rates—without putting debt on an explosive path that would undermine policy effectiveness or generate large financial stability risks. A coherent framework requires that warranted fiscal and monetary adjustments are being implemented and that the use of FXI, CFMs, and MPMs is aligned with and supportive of those adjustments.

23. Incoherence can arise under any exchange rate regime when countries pursue multiple objectives—such as price stability, exchange rate stability, competitiveness, or output growth—without clearly prioritizing amongst them. In nascent floating regimes, this issue is pronounced when inflation targeting frameworks are not fully established or lack credibility and the

⁸ Exchange restrictions are laws, regulations, or administrative practices that impede the ability of residents or nonresidents to make payments and transfers for current international transactions. Multiple currency practices are official actions which segment FX markets and create a difference in exchange rates for different users or purposes. Countries use both kinds of tools, and the Fund's policy advice for the tools is covered in IMF (2019, 2022b).

use of FXI could confuse agents about whether the central bank is really prioritizing inflation rather than aiming for exchange rate stability. In intermediate or hard-peg regimes, incoherence can also arise from attempting to support an overvalued exchange rate through distortive measures when reserves are scarce and the monetary and fiscal policy adjustments are insufficient, leading to parallel exchange rates and a proliferation of additional tools to maintain parity or multiple official exchange rates. Even when policy objectives are clear, incoherence can still emerge if the monetary authority lacks the operational independence to pursue its core mandate, for instance, when governance challenges prevent the central bank from maintaining price stability. In addition, a weak fiscal position can lead to incoherence, as it undermines confidence that the central bank will be able to maintain the policies needed to achieve its primary objectives.

24. Maintaining policy coherence in LICs may be challenging due to a combination of shocks, frictions, and institutional constraints. In such cases, there is a risk that FXI, CFMs, MPMs, and other distortive measures are used to substitute for warranted macroeconomic policy adjustments. If so, CFMs and MPMs may require continuous adjustment, FX reserves may become excessive or depleted, policymakers may resort to a distortionary use of exchange controls and MCPs, and the parallel exchange rate may increasingly diverge from the official rate even in the absence of further shocks. Such incoherence often distorts incentives, as the use of FXI, CFMs, and MCPs create opportunities for rent-seeking behavior and amplify governance problems.

25. Policy incoherence in LICs can be monitored using a range of indicators. An incoherent policy framework—where monetary, fiscal, and exchange rate policies are misaligned or poorly implemented—can severely undermine macroeconomic stability and limit the effectiveness of policy responses to shocks. In many LICs, such incoherence may be shaped by structural constraints, underdeveloped financial systems, and limited institutional capacity. Depending on the country's context, indicators of incoherence can include (see further Box 3 and Section C in Annex I):

- **Monetary and fiscal policies.** Incoherent policies can lead to destabilized public debt dynamics and growing debt monetization, and declining debt market access. They can also lead to increasing monetary financing that contributes to de-anchoring inflation expectations.
- **Stability of the exchange rate regime and FX markets.** Inconsistency between domestic and external policy objectives could cause increasing exchange market pressure, a sustained exit of foreign investors from the FX market, and potentially the emergence of parallel market spreads.

Box 3. Indicators of Policy Incoherence

The appropriate indicators of policy incoherence depend on each country's structure of financial flows, exchange rate regime and monetary framework, and data availability constraints. Given the heterogeneity of such features across LICs, the set of indicators may differ across countries. This Box highlights the most common indicators which may be used. Section C in Annex I. presents a more detailed analysis of these indicators. **The presence of parallel exchange rate market spreads can be a sign of policy incoherence.** Parallel markets can undermine monetary policy effectiveness, deter investment, and amplify economic instability. They can signal incoherence in monetary and fiscal policies, especially when the gap between parallel and official exchange rates is growing even in the absence of shocks. A large and growing divergence between parallel and official exchange rates can emerge in response to FX shortages and CFMs and are strongly associated with macroeconomic distortions, including much higher inflation and lower growth. The share of LICs with dual, multiple, or parallel exchange rates has consistently exceeded that of EMEs over the past decades, with notable peaks during periods of macroeconomic stress.

Increasing resort to multiple currency practices (MCPs) and exchange rate restrictions may be a sign of incoherence. The presence of parallel exchange rate markets in LICs is often associated with the use of restrictive FX market measures, including multiple currency practices (MCPs) and exchange restrictions. These measures are typically introduced to reduce FX market demand and allocate and prioritize limited FX resources in the face of external pressures or reserve shortfalls. However, by distorting price signals and segmenting FX markets, their excessive use can undermine coherence in the broader policy framework. Moreover, such restrictions act as barriers to trade, investment, and international monetary cooperation and create vehicles for rent seeking.

Incoherent regimes can experience persistent exchange market pressure (EMP), which surges aftershocks. Persistent EMP can indicate stress in the FX market owing to a lack of warranted macroeconomic policy adjustments, even when the nominal exchange rate is kept relatively stable through the use of other policy tools. EMP indicators show frequent and sustained FX pressures over the past two decades in LICs.

Unsound fiscal policies may generate an elevated risk of debt distress. Persistent fiscal deficits, high debt burdens, and constrained financing options undermine the credibility of monetary and exchange rate policy, especially where fiscal dominance limits the scope for independent monetary action. This systemic vulnerability is captured in the IMF–World Bank Debt Sustainability Framework (DSF), which classifies countries based on the likelihood of debt distress. Nearly 60 percent of LICs are at high risk of debt distress or already in debt distress, while only 7 percent are classified as low risk.

Another potential indicator of incoherence is the extent of monetary financing by the central bank. While direct measures are not readily available, an imperfect proxy can be derived from the central bank's balance sheet—specifically, the stock of claims on the government relative to total assets. A high and rising share may suggest that the central bank is financing fiscal deficits, which undermines the credibility of monetary policy and may generate inflationary pressures. More generally, where governance challenges lead to a monetary policy stance that is persistently too loose, this can lead to a de-anchoring of inflation expectations.

A related signal of monetary financing is a weak transmission of the policy interest rate to interbank rates. When central bank operations are largely geared toward supporting government financing needs, rather than steering short-term interest rates, the ability of the policy rate to influence broader money market conditions can be impaired. This disconnection may reflect excess liquidity in the system created through central bank financing of fiscal deficits, which dampens interbank market activity and weakens the interest rate channel of monetary policy.

POLICY CONSIDERATIONS

26. Given the economic context described in the previous section, the IPF offers some overarching considerations for policy choices in LICs. These considerations complement existing IPF-based staff guidance, which covers specific tools and exchange rate regimes but is not targeted at LICs. Because the countries within the LIC category are heterogenous, staff should tailor detailed policy advice to each country's unique economic context, drawing on these considerations as well as factors beyond the scope of the IPF.

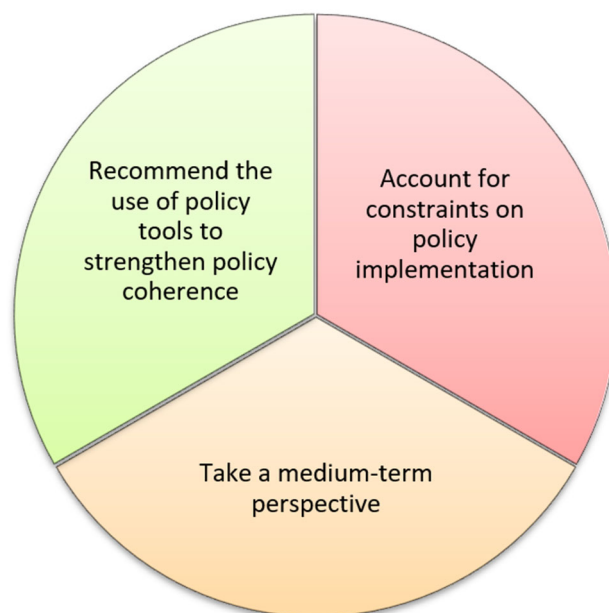
27. The IPF guides the use of policy tools, including conventional monetary and fiscal policies, as well as FXI, CFMs, and MPMs. Under the IPF there may be a case for policies in normal times (i.e., "ex ante") to make the economy more resilient to future shocks, and a case for policies aftershocks (i.e., "ex post") to manage the shock in a manner that preserves macroeconomic and financial stability. Recommendations depend on the nature of the shocks (fundamental or non-fundamental), specific frictions in each country, and the exchange rate regime (floating, intermediate, or hard pegs). Furthermore, a range of other considerations including costs of deploying additional tools can influence policy advice, given the available alternatives (see IMF (2023a) and Basu and Gopinath (2024)).

28. LICs are likely to present one or more IPF frictions that can call for such policies. The empirical evidence presented in Annex I and summarized in Section II shows that all LICs have shallow FX markets, and although only a small number have substantial exposure to short-term portfolio debt inflows from non-residents, most are subject to capital outflow shocks from residents (use case A from IMF (2023a)). While FX debt owed by the private sector is relatively small for the median LIC, most LICs face substantial FX mismatches from loan dollarization that can pose significant vulnerabilities (use case B). Most LICs have weakly anchored inflation expectations and exhibit a high pass-through of exchange rate fluctuations to inflation and inflation expectations (use Case C).

29. The presence of these frictions alongside capacity and governance constraints may partly explain why many LICs struggle to establish well-functioning monetary policy frameworks based on floating exchange rates, and why FXI, CFMs, and MPMs can play a role in all exchange rate regimes. As illustrated in Section II, many LICs have chosen to follow intermediate exchange rate regimes instead of floating regimes or hard pegs. Given the mix of IPF frictions, FXI, CFMs, and MPMs may be necessary even in a floating regime to smooth non-fundamental volatility in premia (use case A), prevent financial damage from FX mismatches (use case B), and/or prevent the destabilization of inflation expectations (use case C). Weak institutional capacity (e.g., weak central bank independence, credibility, and monetary transmission) can increase or decrease the case for some of these additional tools, depending on the specific constraints faced by the country. Capacity constraints can also undermine the usefulness of the policy rate as a tool, placing more of the adjustment burden on other tools. These use cases and capacity constraints would apply even if the parity were more stable because the exchange rate is being used as the

nominal anchor, although in such cases the policy mix would need to change to be consistent with the parity and any parity adjustments.

Figure 1. Three Sets of Considerations for IPF advice in LICs



30. However, capacity constraints and governance challenges also complicate the decision to use additional tools, often arguing for restraint and careful coordination. Potential governance challenges and capacity constraints may argue against the use of additional tools such as FXI, CFMs, and MPMs, or argue for them to be used in particular ways. This section offers three sets of considerations which take account of these additional characteristics (as illustrated in Figure 1). First, policymakers should ensure that the use of additional tools strengthens rather than undermines overall policy coherence. Second, the advice on FXI, CFMs, and MPMs must reflect the constraints that LICs face in implementing these policies. Third, policy advice should adopt a medium-term perspective—going beyond short-term stabilization to focus on building stronger frameworks and gradually reducing IPF frictions over time. In the following, this note examines each of these sets of considerations and how they can shape the IPF advice.

31. Not all LICs face all of these characteristics and some of them will also be present in countries other than LICs. Nonetheless, it is useful to draw out the implications of these features for the advice to LICs.

A. Strengthening Policy Coherence

32. The first set of considerations relates to ensuring that the use of additional tools strengthens rather than undermines overall policy coherence. Policy frameworks in many LICs lack coherence and this can lead to an overuse of FXI, CFMs, and MPMs relative to the benchmark of a coherent policy framework. Moreover, shocks can derail previous attempts to achieve coherence, especially if the mix of policy tools to manage the shock is inappropriate.

Consideration 1. If the Policy Framework is Incoherent, the Use of Policy Tools Should Be Devoted to Re-Establishing Coherence

33. The IPF does not advocate for any specific exchange rate regime to be established in LICs; instead, it advises that each country should ensure coherence in their macroeconomic policy framework. This framework should establish clear macro-financial policy goals, including price and financial stability, establish the nominal anchor, and clearly assign the available policy tools to these goals depending on the circumstances, e.g., the nature of the shock, relevant frictions, and initial conditions. Effective communication of objectives, policy and operations strategies, and decisions to the public and markets are also crucial for transparency and credibility. Policymakers should first assess and correct conventional monetary and fiscal levers before considering additional tools.

34. If there are clear indicators of policy incoherence, the warranted monetary and fiscal policies to re-establish coherence should be prioritized, with FXI, CFMs, and MPMs used only in support. Sustained policy incoherence can lead to crisis risks even in the absence of new shocks. Implementing the warranted macroeconomic adjustments should prevent the build-up of macroeconomic and financial vulnerabilities over time. In incoherent regimes, FXI, CFMs, MPMs should be used in a manner that helps re-establish policy coherence and not to substitute for warranted macroeconomic policy adjustments. These tools can be helpful if they are implemented as part of a package which stabilizes FX markets to create space for credible monetary and fiscal policy adjustments to be designed and then implemented. This principle is articulated in the guidance notes on FXI, CFMs, and MPMs (IMF, 2014, 2023a, 2023f).

35. By contrast, if FXI, CFMs and MPMs are used mainly to contain the side-effects of persistently inappropriate macroeconomic policy settings, their use can become excessively distortive. If FXI is used in the absence of the warranted accompanying monetary or fiscal adjustments—which often occurs given concerns about the effects of fiscal and monetary tightening on real activity, it could trigger speculation and deplete reserves. Similarly, if communication lacks credibility, the announcement of future adjustments would not stabilize market expectations. If CFMs are tightened to compensate for inappropriate monetary and fiscal settings, this can lead to rent seeking and adverse impacts on smaller or less well-connected firms (Pasricha and Nier, (2022)). When MPMs are used to contain the accelerating effect on credit of overly accommodative monetary policy, this can require distortive measures that reduce the efficiency of the allocation of resources. In such cases, a credible and decisive commitment to the necessary monetary and fiscal adjustments and the nominal anchor may be a pre- or co-requisite for the effective implementation of any FXI, CFMs, or MPMs.

Consideration 2. Regime Coherence Should Be Preserved When Responding to Shocks

36. After shocks, the appropriateness of FXI, CFMs, and MPMs depends on the frictions and the exchange rate regime (see Box 4). *Fundamental* shocks are prevalent in LICs, and they should be accommodated via the warranted monetary and fiscal policy adjustments. The shallow FX markets friction in LICs does not necessarily justify the use of FXI, CFMs, and MPMs after fundamental shocks. However, after *non-fundamental* shocks to short-term portfolio debt flows or resident outflows, these tools may be appropriate irrespective of the exchange rate regime. Both *fundamental* and *non-fundamental* shocks can cause exchange rate movements which trigger the frictions of FX mismatches and weakly anchored inflation expectations in floating exchange rate regimes. If so, there may be a case for the use of FXI, CFMs, and MPMs in some circumstances. However, if the exchange rate regime is such that FXI credibly stabilizes the exchange rate, these frictions may not be triggered, so the case for additional CFMs and MPMs may be weaker.

37. The use of FXI, CFMs, and MPMs should support the exchange rate regime. After shocks, countries should implement those warranted monetary and fiscal policy adjustments as well as FXI, CFMs, and MPMs that were promised at the time of the shock (in line with the IPF guidance on FXI and the IV), or they should communicate to the markets the rationale for any change in their plans. As described in Box 4, the appropriate policy mix depends on the kind of shock, the prevailing frictions, and the exchange rate regime. Moreover, each kind of regime requires careful steps to ensure that market participants do not become confused about policy coherence when considering the use of additional tools. In certain circumstances, e.g., a non-fundamental premium shock in the context of shallow FX markets, it may be the case that coherence is maintained via the use of a mix of FXI, CFMs, and MPMs and no changes in monetary and fiscal policies. By contrast, in other circumstances, e.g., a fundamental commodity price shock in the absence of FX mismatches or destabilization of inflation expectations, it may be the case that monetary and fiscal policies should play the central role in maintaining policy coherence, instead of other tools. In cases where fundamental and non-fundamental shocks coincide, such as when a fundamental shock is amplified by frictions, the appropriate policy mix depends on the relative importance of the two types of shocks.

38. Nascent floaters may limit the use of FXI and CFMs if their use compromises the emerging regime (IMF, 2015, 2023a). They should continue implementing an interest-rate based policy framework and a transparent communication strategy. Clear communication of any use of FXI and CFMs, facilitated by the IPF, is needed to explain why they are consistent with the monetary policy regime. In the absence of capacity to communicate this consistency, the use of FXI and CFMs may confuse market participants about whether the inflation target remains the nominal anchor and should then be avoided (IMF (2023a)). Since a floating regime requires a buffer stock of FX reserves, policymakers need also to explain how policies are being adjusted so that reserve accumulation is possible during periods of stability.

Box 4. Exchange Rate Regime and the Appropriate Policy Mix

The IPF models indicate that the appropriate policy mix to manage shocks depends on the country's exchange rate regime and relevant frictions. The analysis in this box builds on two inputs. First, it draws on the policy advice for floats in IMF (2023a) which covers three use cases for FXI based on the three IPF frictions: (A) shallow FX markets; (B) high private sector FX mismatches; and (C) weakly-anchored inflation expectations. Second, it draws on the IPF diagram (Basu and Gopinath, (2024)), which visualizes and extends the IPF conceptual model (Basu and others, 2020, 2023) to feature the exchange rate regime. The tools in the diagram include the monetary policy rate, FXI, CFMs, MPMs, and fiscal policy.

After fundamental shocks, the warranted monetary and fiscal policy adjustments depend on the exchange rate regime. The appropriate mix of these adjustments is influenced by the exchange rate regime:

- **Floating exchange rate regime.** The adjustment involves exchange rate depreciation when the shock is adverse. This depreciation induces the expenditure-switching mechanism, stimulating domestic production and reducing imports, while the monetary policy rate is set to stabilize medium-term inflation expectations.
- **Fixed exchange rate regime.** In such a regime (whether a hard peg or a credible soft peg), the currency's parity is maintained. Macroeconomic adjustment is required to alter the demand for imports, such as reducing imports after an adverse shock, while also stabilizing domestic aggregate demand. A combination of adjustments to the policy rate, FXI, and CFMs is used to maintain parity, with a greater role for monetary policy when FX reserves are limited. Beyond that, the aggregate demand stabilization role falls to fiscal policy. After an adverse shock, a reduction in government imports could help, alongside a cushioning of domestic aggregate demand via automatic fiscal stabilizers. In addition, if tools are limited ex post in this regime, there is a greater case for ex-ante MPMs to build domestic asset market resilience.
- **Intermediate exchange rate regime.** Building on the two previous cases, the mix of warranted adjustments for the stabilization of domestic demand tilts more toward monetary policy if the policymaker chooses to adjust the parity, and more toward other macroeconomic adjustments, especially fiscal policies, if they choose to maintain it.

A lack of fiscal adjustment can threaten the sustainability of any regime that stabilizes the exchange rate. A lack of such adjustment may mean that the exchange rate can only be maintained at its pegged level via sharp policy rate tightening, the use of FXI (risking the depletion of reserves) and/or CFMs (possibly in a manner inconsistent with the IV). The use of FXI and CFMs as substitutes for warranted monetary and fiscal adjustments would not be appropriate. Instead, their use may be appropriate if they are part of a policy package that includes the warranted adjustments.

If shallow FX markets are the only friction, and there is a non-fundamental premium shock, FXI and/or CFMs may be appropriate irrespective of the exchange rate regime. Even in floating regimes, it may be appropriate to use FXI and CFMs instead of adjusting the policy rate and exchange rate flexibility, provided that the conditions in IMF (2023a), and the revised IV, IMF (2022), are satisfied. Fiscal adjustments would also not be warranted. Such a response would continue to be appropriate in hard pegs and intermediate regimes where exchange rate flexibility is more limited.

Box 4. Exchange Rate Regime and the Appropriate Policy Mix (Concluded)

The salience of the friction of FX mismatches depends on the exchange rate regime. In floating regimes with high private sector FX mismatches, both *fundamental* and *non-fundamental* shocks may cause a sharp depreciation which threatens financial stability. An appropriate ex post policy response may be to sell FX reserves and relax MPM buffers. Additionally, ex ante MPMs, and if necessary preemptive inflow CFM/MPMs may be recommended to reduce private sector FX mismatches and build resilience, if the conditions set out in the revised IV are fulfilled. Public sector FX mismatches should be addressed through fiscal consolidation, and policymakers should monitor interactions between these mismatches and those of the private sector. In hard peg regimes with plentiful reserves, there is only a small risk of a depreciation that could trigger this friction. FXI is endogenous to the regime, while CFMs may be adjusted if necessary to relieve pressure on reserves, in line with the IV. Given these arguments, policymakers in intermediate regimes should evaluate the size of the friction, as well as whether the shock is large and persistent when deciding whether the parity should be adjusted. Ex-ante MPMs and preemptive CFM/MPMs on FX mismatches may be appropriate to ensure that ex post parity adjustments do not endanger financial stability.

The salience of the friction of weakly anchored inflation expectations also depends on the exchange rate regime. If expectations are weakly anchored, both *fundamental* and *non-fundamental* shocks may cause a sharp depreciation which causes pass-through and threatens price stability. For floats, monetary policy is the first line of defense, but in some cases, additional tools like FXI can also help when the cost of using the policy rate alone is high, and the cost of adding FXI is low. In hard peg regimes with plentiful reserves, this friction is not relevant because the exchange rate does not change. Given these arguments, policymakers in intermediate regimes should evaluate the size of the friction, as well as whether the shock is large and persistent. Defending the parity is more likely to be appropriate when there is a large risk that parity adjustments (especially if they are frequent) undermine the credibility of the peg and thereby de-anchor inflation expectations.

39. Hard pegs require larger fiscal adjustments. Even with shallow financial markets, monetary policy needs to be adjusted to be aligned with global markets, and specifically any anchor currencies, to prevent excessive draining of FX reserves. Fiscal policy may then have to play a primary role in achieving domestic macroeconomic stabilization, e.g., an expansion in government spending on home goods when the domestic output gap is negative. With underdeveloped financial markets and weak monetary policy transmission, fiscal policy may also be needed to reduce pressures on the balance of payments. For example, if adverse shocks such as falling commodity prices directly impact revenues, a contraction of government spending on imports may be needed.

40. Fiscal institutions may not be credible enough to deliver the warranted fiscal adjustments. Fiscal policy typically operates with longer lags than monetary policy or FX intervention, making it difficult to align fiscal responses with the temporary nature of many shocks. Imperfections in fiscal policy in LICs mean that fiscal adjustments are likely to be delayed or derailed. In addition, government financing constraints in LICs such as uneven access to international markets, limited domestic financial markets, and weak tax bases may limit the availability and reliability of financing. Informality and weak civil services can also make tax collection particularly distortionary. Weak automatic stabilizers and political constraints hinder the responsiveness of fiscal transactions to shocks, while the fragmented industrial base and lack of substitutability of domestic goods and imports, along with developmental objectives, restricts the flexible allocation of public spending between imports and domestic goods for stabilization purposes. Additionally, countries

with debt sustainability concerns may not have the fiscal space to undertake any fiscal expansions which may be warranted under the IPF. All these factors imply that monetary policy and the exchange rate may need to be adjusted when it would otherwise be desirable for fiscal policy to play a greater role.

41. Weak fiscal frameworks imply that risk premium shocks can also be fundamental, for example when market participants have concerns about public and external debt sustainability.

For LICs, even more than for AEs or EMEs, such sustainability may come into question, so the assessment of the FX market should be undertaken while incorporating information from the DSA and news about aid flows and debt restructuring processes. In such cases, the appropriate response is to recommit fiscal adjustments to restore sustainability, rather than to use other tools instead of such adjustments.

42. Intermediate regimes may face the greatest threat to regime coherence in the presence of shocks.

In such regimes, the policy mix achieves coherence only if the decision on whether to maintain or alter the exchange rate parity is consistent with the fiscal adjustments that are credibly planned. As described in Box 4, maintaining the existing parity may be appropriate in some circumstances when the frictions related to use cases A, B or C apply. Sustaining that parity requires credible fiscal adjustments if the shock is fundamental, persistent, and large. For temporary shocks, FXI combined with complementary monetary policy may suffice to sustain the parity without causing a parallel exchange rate or other incoherence. Some real exchange rate adjustments may emerge from tight monetary policy in a context of imperfect capital mobility and thus may help adjust to even persistent shocks, if they are small enough. However, if the shock is persistent and large, and the necessary monetary and fiscal adjustments do not materialize, the credibility of the exchange rate as a nominal anchor will erode, especially under sustained depreciation pressures. Indicators of incoherence will likely build, risking macroeconomic and financial stability. In such cases, adjusting the parity may be necessary to preserve regime coherence, even if such adjustment triggers use cases B and C.

43. For intermediate regimes where incoherence emerges, it is crucial to (re-)establish a clear nominal anchor and unify the exchange rate to ensure the effectiveness of policy tools.

A move to a flexible exchange rate with an inflation target as the nominal anchor is one option that may be viable for some LICs. Establishing a coherent peg—also a viable option—generally requires adjusting monetary and fiscal policy and potentially adjusting the parity if the real exchange rate is severely misaligned. Strengthening and making pegs coherently, including through exchange rate unification, likely necessitates FXI. Supportive macroeconomic policies are vital to avoid the re-emergence of imbalances and parallel rates, and to mitigate the distortionary and costly implications of FXI under inappropriate policies (see for example, Gray (2021)). The re-imposition of CFMs may be necessary in cases of premature liberalization. A structural reform agenda is likely needed to make fiscal policy a more useful countercyclical tool, build strong reserve buffers, and manage the capital account effectively.⁹

⁹ IMF advice on the strengthening of fixed exchange rate regimes is beyond the scope of this note. While Box 4 highlights ongoing IPF work on fixed regimes further analytical and policy work would be beneficial in the case of intermediate regimes.

B. Accounting for Policy Implementation Constraints

44. The second set of considerations relates to ensuring that the advice on FXI, CFMs, and MPMs reflects the constraints that LICs face in implementing these policies. LICs often have only limited FX reserves, since building and holding these reserves can be costly. LICs may also have limited data and analytical and operational capacity to actively deploy FXI, CFMs, and MPMs. These constraints can also lead them to struggle to conduct monetary policy in line with modern inflation targeting frameworks, and excessive use of additional tools can further complicate their efforts.

Consideration 3. Lack of FX Reserves can Shape the Use of All Policy Tools

45. Given the challenges in accumulating reserves in LICs, FX sales should be undertaken with caution. As outlined in IMF (2023a), determining optimal reserve levels requires balancing effectiveness in responding to a particular shock, maintenance costs, and the reduced capacity to address future shocks. LICs face challenges in accumulating reserves due to limited capital inflows, primarily from exports, and restricted access to capital markets. A lack of reserves in turn can hinder the central bank's ability to credibly pursue its policy objectives. In particular, the excessive use of FX sales can result in a low buffer of reserves, which can diminish the effectiveness of FXI and trigger speculative attacks, as market participants expect reserves to be further depleted. Maintenance of a peg would then rely more on monetary policy adjustments instead of FXI.

46. For all IPF frictions, if FXI and CFMs are recommended by the IPF but are not available, monetary, and fiscal policies may need to be adjusted more decisively. FXI may not be feasible if reserves are too limited to counter a large outflow shock. There may also be significant practical challenges to the active use of CFMs to control outflows (see, e.g., Pasricha and Nier, (2022)). In such cases, a much more decisive hike of the monetary policy rate may be required to counter disruptive outflows (use case A) or achieve any desired stabilization of the exchange rate (use cases B and C). Additionally, if the shock is significant and persistent enough to warrant a fiscal response, fiscal restraint and a reduction in imports may be needed to stabilize the balance of payments.

47. Low reserves can also influence the approach to MPMs and CFMs. In the presence of FX mismatches, and especially if FXI is not available ex post to contain amplification of a sharp depreciation, there is a premium on using targeted ex ante MPMs to reduce mismatches and to build greater macroprudential buffers to deal with shocks. Moreover, in the presence of macroeconomic volatility and exposure to external shocks, low reserves can strengthen the case for maintaining long-standing CFMs to mitigate non-fundamental outflow shocks and enhance FXI effectiveness. In the presence of such macro-financial vulnerabilities, it can therefore be advisable to exercise caution regarding the pace of liberalizing capital account restrictions (IMF, (2012)).

Consideration 4. Low Institutional Capacity Can Shape the Approach to the Use of MPMs, FXI, and CFMs

48. Low institutional capacity can affect the way MPMs are deployed in LICs, with an emphasis on building buffers and reducing frictions ex ante. When data to track risks from capital inflows and outflows are scarce and the capacity to analyze macroprudential indicators in real time are limited, the approach should emphasize the building of permanently larger capital buffers

or capital requirements that would be relaxed only in the event of severe shocks (IMF, 2014a). Moreover, even where capacity is low, basic tools to limit FX mismatches at the level of the banking system are often still feasible. However, macroprudential constraints need to be enforced, and supervisory capacity may need to be built to ensure that banks comply with them.

49. Low capacity also argues against the active use of CFMs. Limited institutional capacity may prevent LICs from effectively enforcing CFMs, potentially making their use counterproductive (Pasricha and Nier, 2022). While the active use of CFMs in response to shocks is challenging and (empirically) rare among LICs, they can consider whether maintaining long-standing capital account restrictions helps reduce susceptibility to inflow and outflow pressures. The costs of maintaining any given set of restrictions should also be considered, however, since they may result in economic misallocation and rent-seeking, and may not be well-targeted to macroeconomic and financial stabilization.

50. Capacity constraints can affect the feasibility of effectively using monetary policy under a float. Central banks in LICs often lack the capacity to steer the monetary policy stance in a manner consistent with their objectives. These constraints include weak liquidity management practices, limited policy analysis capacity, and poor communication strategies. Consequently, a majority of central banks do not have a well-articulated monetary policy framework for assessing how policy should respond to shocks, or a coherent strategy that effectively maps objectives to monetary operations.¹⁰

51. The operationalization of FXI calls for strong central bank governance and transparency to as regards intervention policies (IMF 2023a). The allocation of FX resources when sold or bought by the central bank should be transparent. This means all authorized transactions can be financed by the central bank at a predetermined fixed rate under a peg, or allocations are based on prices that reflect demand in a floating system. More generally, FX interventions should be based on clearly defined processes (2023a).

52. Where a country chooses the exchange rate as the nominal anchor, FXI will naturally be one of the tools used to operationalize the regime alongside variation in interest rates. This choice of anchor may stem from the lack of capacity to run an inflation targeting-based regime or other reasons. FXI, along with monetary policy rate variations to follow the anchor country (with appropriate adjustments based on the UIP deviation) and fiscal policy to manage aggregate demand, will be used to operationalize the regime.

53. Capacity constraints can limit the ability of LICs to use these policies in a manner consistent with the exchange rate anchor. For instance, when operating a peg, setting appropriately the monetary policy rate differential with the anchor country requires adequate analytical capacity and the willingness to adjust monetary policy to defend the peg in a timely manner. In addition, authorities usually need to implement effective monetary and FX operations to strengthen monetary policy transmission and achieve the desired policy stance.

¹⁰ See IMF (2015) for a discussion on how to strengthen capacities in evolving monetary policy frameworks.

54. When operating a float, the use of FXI creates additional challenges. LICs may lack the data, technical expertise, and resources needed to diagnose the source of shocks and manage a suite of additional tools in line with IPF advice (IMF 2023a). Furthermore, LIC central banks often struggle with transparency, exhibiting inconsistencies, poor timing, complex language, and unclear objectives in their communication. In this context, the use of FXI may generate communication and administrative challenges that magnify governance concerns. At the same time, these same weaknesses, along with other typical LIC features such as high exchange rate pass-through and weak central bank credibility also make it challenging to implement free floats without FXI.

C. Taking a Medium-Term Perspective

55. The IPF advice in LICs will have to emphasize a medium-term perspective, going beyond the tactical use of tools to achieve short-term stabilization. The development of a medium-term reform agenda can be informed by an analysis of frictions, governance challenges, and capacity constraints. Reforms to both monetary policy frameworks and fiscal frameworks may be needed to establish more coherent policy frameworks in which FXI, CFMs, and MPMs can play their proper role. The reform agenda may involve targeted steps to develop financial markets in local currency and FX, as well as improvements in the capacity to implement policy tools, including closing data gaps. A move to increase exchange rate flexibility should be based on a thorough analysis of country-circumstances and can be supported by a roadmap of needed reforms. Alternatively, steps can be taken to strengthen and maintain the exchange rate as the nominal anchor. The advice should outline how using FXI, CFMs, and MPMs—or refraining from using them—may complement each country’s necessary structural reforms. Reducing IPF friction and improving policy traction can also guard against overreliance on FXI, CFMs, and MPMs aftershocks.

Consideration 5: The IPF Can Motivate the Development of a Medium-Term Reform Agenda

56. Achieving policy coherence requires structural reforms to strengthen fiscal and monetary frameworks irrespective of the exchange rate regime and nominal anchor.

- *Fiscal reforms.* Strengthening fiscal frameworks are needed to enable the government to mobilize revenue, prevent the buildup of unsustainable debt burdens, and support fiscal discipline. The development of fiscal policy institutions should prioritize the understanding of public and external debt dynamics, and how to implement more efficient fiscal taxation and expenditure procedures. Such reforms can make fiscal adjustments more credible and reduce reliance on monetary financing. Building buffers that permit counter-cyclical fiscal policy can be useful under all exchange rate regimes.¹¹
- *Monetary reforms.* Structural policies should focus on strengthening the monetary policy framework to reduce the impact of exchange rate fluctuations on inflation and inflation

¹¹ See Frankel and others (2013), and Vegh and Vuletin (2014). Footnote 4 (Annex 1) discusses the pro-cyclicality of fiscal policy in developing countries, its roots in the fact that private capital inflows disappear when they are most needed, and the way structural fiscal and other reforms have promoted counter-cyclical policy in many developing countries.

expectations. Central to this approach is enhancing the central bank's credibility in achieving the chosen monetary policy objectives. Addressing the potential for fiscal dominance of monetary policy is important and can be achieved in part through legal reforms that limit outright monetary financing of the government. Capacity development for the monetary policy regime can help understand how frictions and shocks interact. Better forecasting and policy analysis can support sound forward-looking policymaking and communication.

57. Additionally, reforms may be needed to strengthen the chosen nominal anchor. These reforms will require establishing clarity over the central bank's primary monetary policy objective (i.e., price stability) and the instruments to achieve it, and how it should have priority over secondary objectives such as competitiveness and output growth. Legal reforms may also be needed to strengthen the operational independence of the central bank in pursuing its mandates. Across FX regimes, the central bank agenda includes enhancing central bank independence, transparency, and communications. Establishing adequate FX reserve levels is important in all regimes, especially in intermediate regimes and hard pegs.¹²

58. Structural reforms and capacity development can help LICs develop transparent, efficient, and robust FX markets to support the efficient functioning of the chosen nominal anchor. Establishing or enhancing FX interbank markets through specific regulations and participant committees can foster an organized environment that improves liquidity management (in both fixed and floating regimes) and price discovery (in floating regimes). Additionally, improving market infrastructure, including information systems and trading platforms, is crucial for facilitating smooth transactions and effective risk management, supported by a strengthened regulatory framework. The development of financial instruments like repos and derivatives is vital for deepening the market, while enhancing communication and information analysis aids in informed decision-making. Finally, education and capacity building for market participants, including central bank staff, play a critical role in ensuring a well-functioning FX market.

59. Tackling data gaps is essential to monitor the evolution of frictions, shocks, and the appropriate policy response. Capacity development can support member countries to improve data collection and analysis needed for diagnostics and the effective implementation of FXI, CFMs, and MPMs. Annex II details relevant indicators that LICs should aim at constructing over time, including those related to the functioning FX market, FX-related mismatches, and inflation expectations surveys.

¹² The IMF's ARA metric quantifies the extent to which countries with stabilized exchange rates should have larger reserve stocks.

Consideration 6. Any Change in the Exchange Rate Regime Should be Considered Carefully, in Light of the Prevailing Country’s Circumstances

60. A decision to enhance exchange rate flexibility should be based on a thorough analysis of country circumstances.¹³ The appropriateness of a decision to hold on to the current exchange rate parity as the nominal anchor, to move to a different parity, or to move to an alternative nominal anchor such as an inflation target, depends on country circumstances, including the strength of IPF frictions and their interaction with underlying institutional and capacity constraints. For instance, when a lack of central bank credibility is rooted in underlying governance challenges and coupled with fiscal dominance, the central bank may not be able to signal a commitment to an alternative nominal anchor, such as inflation targeting, simply by sharply tightening monetary policy rates. Accordingly, instead of a mechanical recommendation for greater exchange rate flexibility, a thorough prior analysis of country-specific circumstances is essential,¹⁴ including an analysis of the sources and implications of the country’s IPF frictions.¹⁵

61. A move to an alternative nominal anchor can be facilitated by a roadmap to reduce friction and enhance credibility. A roadmap towards a more flexible exchange rate regime may need to include actions that build capacity to run an alternative monetary policy regime, as well as structural reforms to strengthen monetary policy transmission (IMF (2015)). To facilitate progress towards an alternative nominal anchor, steps may also be needed to reduce the IPF frictions, including by tackling their underlying sources such as governance challenges and impediments to market development.

62. Alternatively, steps can be taken to maintain and strengthen the exchange rate as the nominal anchor. Especially in the short to medium term, an alternative path can involve steps to maintain and strengthen the exchange rate as the nominal anchor, either at the same or a changed parity. Such steps may include clarifying how best to combine changes in interest rates and the use of FXI in maintaining the chosen parity in response to fundamental and non-fundamental shocks, or how to set the appropriate rate of change in the exchange rate in a crawling regime.

Consideration 7: The Advice Should Consider How the Use of FXI, CFMs, and MPMs Can Help or Hinder the Medium-Term Reform Agenda

63. When responding to shocks, preference should be given to tools that do not hinder the country’s medium-term agenda of capital account liberalization and financial development. The appropriate policy mix must balance the short-term management of stocks with the prerequisites for further developing internal and external financial markets. Access to external

¹³ Casiraghi and others (2022) and IEO (2017) note that the IMF has in several past instances called for greater exchange rate flexibility where the exchange rate regime is de facto intermediate, as opposed to a hard peg, especially in LICs.

¹⁴ Examples of such recent analysis include Annex VII to 2023 Papua New-Guinea First Reviews under Extended Fund Facility and an Arrangement under the Extended Credit Facility, and 2023 IMF Selected Issues Paper “[Bangladesh: Toward Greater Exchange Rate Flexibility](#).”

¹⁵ The TA Handbook chapter “[Choice of Exchange Rate Arrangement](#)” (Casiraghi and others, (2022) details the key questions and considerations that inform the choice of exchange rate regime, including a discussion of FX mismatches, dollarization, depth of FX and hedging markets, and lack of policy credibility (and hence any need to import it).

capital markets requires strong fiscal and financial regulatory frameworks to manage potential imbalances and excessive borrowing, including targeted adjustments in public debt management to stabilize financial conditions.

64. The use of FXI should not compromise the reforms to the monetary and fiscal policy frameworks and institutions. The medium-term strategy should consider that heavy use of FXI can entrench IPF frictions. Specifically, as set out in IMF (2023a), and with particular importance for those countries aiming to establish floating regimes:¹⁶

- Heavy reliance on FXI to stabilize the exchange rate may hinder the development of FX markets, leading to more shallow markets.
- Excessive exchange rate stability may falsely reassure domestic banks, non-bank financial institutions (NBFIs), and non-financial corporates about FX risk, encouraging borrowing abroad in foreign currency and hindering hedging against exchange rate risk.
- Weakly anchored inflation expectations may stem from opaque monetary policy regimes. FXI can contribute to this opacity, blurring distinction between regimes and making it challenging to identify the nominal anchor. Especially in the early phases of a floating regime, it can be challenging to distinguish between an intermediate regime and a floating regime that is using intervention as an additional tool.

65. The use of CFMs should balance short-term stabilization and medium-term objectives regarding the reduction of IPF frictions and the desired degree of openness of the capital account. On the one hand, relaxing some categories of CFMs to manage outflow shocks may result in a larger-than-expected liberalization of the capital account if the composition of investors has changed over time. On the other hand, any tightening of CFMs may be difficult to reverse, leading to adverse side effects in the medium term. As described in IMF (2020), they may incentivize distortions such as rent seeking. Moreover, certain kinds of CFMs and CFM/MPMs may limit foreign investor participation in the FX markets and thereby exacerbate market shallowness or impede the rebuilding of FX reserves. Financial sector reform may require a gradual liberalization strategy that balances market openness with financial stability. Finally, any previously planned capital account liberalization may require adjustments in the presence of shocks. There should be a re-assessment of whether the removal of CFMs may generate large inflows or outflows given the altered economic context.

66. Ex ante use of MPMs can mitigate the impact of external shocks and bolster FX market resilience. Enhancing the capacity to deploy MPMs can be an important step to enhance resilience to sharp changes in exchange rates (IMF 2023a). Such capacity may also be helpful in advance of any planned capital account liberalization, especially for banking and portfolio flows (IMF, 2017). However, countries should guard against premature capital account liberalization, particularly in intermediate and incoherent regimes, as it can exacerbate vulnerabilities and lead to destabilizing capital flows and macroeconomic imbalances.

¹⁶ In this respect, Chamon and others (2019) find that FXI can have unintended consequences, such as increasing firms' FX-denominated debt. Using firm-level data, they show that firms in EMEs may increase FX borrowing following intervention episodes, especially when interventions stabilize exchange rates, leading to lower perceived risks in FX borrowing.

CONCLUSIONS

67. The IPF offers a comprehensive framework for policy guidance, emphasizing the need for tailored approaches that take account of diverse economic contexts across countries. The IPF can guide the use of various policy tools, including conventional monetary and fiscal policies, as well as FXI, CFMs, and MPMs, with recommendations tailored to the nature of external shocks, exchange rate arrangements, and country-specific frictions. Descriptive statistics and empirical evidence in Section II and Annex I show that a key feature of LICs is the prevalence of intermediate exchange rate regimes, alongside evolving monetary policy frameworks in many countries. The relative frequency of fundamental shocks may be higher in LICs, given higher shares of food in consumption, agriculture in production, and commodity dependence.

68. Most LICs experience all the IPF frictions. All LICs have shallow FX markets. The median LIC is less financially integrated than the median EME. Non-fundamental capital flow shocks may be somewhat less common in LICs than they are in EMEs, especially since most LICs have limited exposure to short-term portfolio debt flows. However, capital flow shocks can still arise from the behavior of residents. Moreover, while private external FX debt is relatively low in many LICs, FX mismatches can still arise from a high degree of dollarization, which generates risks on borrower balance sheets, and from high public debt FX mismatches. Finally, many LICs exhibit a high pass-through of exchange rate fluctuations to inflation and inflation expectations, as a result of a large share of imports in the consumption basket and weakly-anchored inflation expectations.

69. IPF frictions are often compounded by weaknesses in the governance of monetary policy, weak fiscal frameworks, and challenges in implementing any given framework effectively. Governance challenges can result in a weak commitment to the chosen monetary anchor, and a lack of clarity on the priority given to price stability objectives over other goals, such as competitiveness and output growth. Lack of clarity on objectives is often compounded by a limited capacity to implement any chosen policy path. Weak institutions imply that fiscal frameworks may be nascent and fiscal buffers inadequate, potentially resulting in a fiscal dominance of monetary policy settings. Fiscal policy is a particularly important tool for intermediate and hard peg regimes, where exchange rate flexibility is limited (or, in the case of hard pegs, not available). Shallow FX markets exacerbate the impact of fiscal expansions not supported by external inflows, often resulting in currency depreciation and contractionary effects, particularly under FX mismatches and weakly-anchored inflation expectations.

70. Where these challenges result in incoherent policy settings, the use of policy tools should be devoted to re-establishing coherence (Consideration 1). Coherence arises when policy objectives related to macroeconomic and financial stability are clear and policy tools are used in a manner consistent with these objectives, with warranted adjustments in monetary and fiscal policies being made. The IPF does not advocate for any specific exchange rate regime but emphasizes that countries should ensure coherence in their macroeconomic policy frameworks, establishing clear macro-financial policy goals, a nominal anchor, and assigning the available policy tools to these goals depending on the circumstances. Indicators of incoherence should be

monitored and corrected. These indicators include measures of imbalances in parallel exchange rates, excessive resort to MCPs, sustained outflows and reserves depletion, destabilized public debt, and de-anchored inflation expectations.

71. FXI, CFMs, MPMs should be used in a manner that helps re-establish policy coherence, and not to substitute for warranted macroeconomic policy adjustments. FXI, CFMs, and MPMs should complement the macroeconomic adjustments that are warranted to maintain coherence, rather than substitute for them. These tools can be helpful if they are implemented as part of a package which stabilizes FX markets to create space for credible monetary and fiscal policy adjustments to be designed and then implemented. In some cases where these tools are initially being used to substitute for warranted adjustments a credible and decisive commitment to monetary and fiscal adjustments and the nominal anchor may be a pre- or co-requisite for the effective implementation of any FXI, CFMs, or MPMs.

72. After shocks, it is crucial to preserve regime coherence (Consideration 2). The use of FXI, CFMs, and MPMs in response to shocks should support the regime and not undermine its coherence. Countries should implement warranted monetary and fiscal policy adjustments as well as FXI, CFMs, and MPMs promised at the time of the shock in line with the IPF and IV guidance or communicate any changes in their plans to the markets. Nascent floaters should limit the use of FXI and CFMs if they compromise the emerging regime, and they should continue to implement an interest rate-based policy framework and transparent communication strategy. Hard pegs require larger fiscal adjustments and the alignment of monetary policy with the interest rates of anchor currencies to prevent the excessive draining of FX reserves.

73. Intermediate regimes face the greatest threat to regime coherence and must re-establish a clear nominal anchor and unify the exchange rate to ensure policy effectiveness. Re-establishing a clear nominal anchor involves two potential options: transitioning to a flexible exchange rate with an inflation target or establishing a coherent peg through monetary and fiscal adjustments, with a parity adjustment if necessary. For countries transitioning to a float, country-specific advice on how to manage the process effectively is crucial. Conversely, those enhancing their intermediate regimes require guidance on the appropriateness of parity adjustments or the mix of policy adjustments necessary to maintain the existing parity.

74. The lack of FX reserves can significantly influence the use of all policy tools (Consideration 3). When LICs face challenges in accumulating reserves, they should be cautious regarding FX sales to avoid depleting reserves and triggering speculative attacks. Low reserve buffers may instead necessitate more decisive monetary and fiscal responses to shocks across the IPF use cases. They can also influence the approach to MPMs and CFMs, emphasizing the need for measures to reduce mismatches and build macroprudential buffers before shocks arise. In the presence of substantial external vulnerabilities, low reserves may also strengthen the case for caution when considering the pace of capital account liberalization.

75. Low institutional capacity can shape the approach to the use of policy tools (Consideration 4). Limited capacity may necessitate MPMs that build permanently higher buffers,

relaxed only in the event of large shocks, alongside simple and time-invariant tools to reduce risks from dollarization. Low capacity to assess and enforce CFMs argues against their active use in response to shocks. However, the need to stabilize the exchange rate in pegs or intermediate regimes may justify maintaining long-standing CFMs and exercising caution regarding the pace of capital account liberalization. While FXI is likely an important tool for operating hard pegs and intermediate regimes alongside macroeconomic adjustment, and some FXI may also be helpful in inflation targeting regimes given the prevalence of IPF frictions, challenges in operating such regimes in the LIC context argue against the heavy use of multiple tools when a floating regime is still nascent.

76. A medium-term perspective, including strengthening of policy frameworks and reduction of IPF frictions, is necessary to ensure the sustainability and success of the regime (Consideration 5). A medium-term agenda is important to address governance issues and improve policy coherence. The agenda should focus on improving monetary and fiscal frameworks, including the enhancement of the independence, transparency, and communications of the central bank, and the establishment of institutions and policy regimes that sustain fiscal discipline and promote revenue mobilization.

77. Any transition between exchange rate parties or regimes should be accompanied by a thorough analysis of country circumstances, including the strength of IPF frictions and their interaction with underlying institutional and capacity constraints (Consideration 6). It should also be accompanied by advice on how to reduce the IPF frictions in such a way that the final regime can be run successfully. More generally, reforms should aim to reduce the prevailing financial market friction and develop markets that strengthen policy traction.

78. In balancing short and long-term goals, policymakers should consider how the use of FXI, CFMs, and MPMs could bolster or hinder the country's medium-term agenda of capital account liberalization and financial development (Consideration 7). The appropriate policy mix must balance short-term management of shocks against the pre-requisites for further development of internal and external financial markets. MPMs can mitigate the impact of external shocks and bolster FX market resilience, particularly in LICs with limited FX reserves and underdeveloped financial systems. Additionally, attaining and maintaining capital market access requires strong fiscal and financial regulatory frameworks to manage potential imbalances and excessive borrowing, including targeted adjustments in public debt management to stabilize financial conditions. While frictions can motivate the use of tools, the use of FXI and CFMs can also engrain friction as the economy develops (IMF 2023a). The use of FXI should not compromise reforms to monetary and fiscal policy regimes, and policymakers should cautiously promote financial system development for stability and growth.

79. The IPF can help members understand the trade-offs in using various instruments, and to communicate their rationale clearly. Its application depends on country-specific judgment, which can be supported by indicators and models, but should not be replaced by them. The interaction of developmental objectives with additional tools also underscores the need for close coordination between surveillance and capacity development efforts, especially around the

development of macroeconomic policy frameworks. Practitioners must evaluate the relevance of additional frictions and other relevant considerations within their unique contexts when considering the use of additional tools in policy formulation.

80. Undoubtedly, further research holds promise for enhancing our understanding and addressing the complexities arising from additional frictions. Further analysis could examine how best to operate the IPF insights for countries that want to run a peg or improve the functioning of an intermediate regime, including situations where reserves are limited. More generally, the implications of the additional frictions for the use of policy tools may be amenable to further research, thereby articulating further some of the considerations offered in this note.

81. Ultimately, the IPF's guidance, in this case through overarching considerations, aims to support LICs in achieving macroeconomic and financial stability. This guidance makes their economies more resilient to future shocks while preserving stability through well-coordinated and transparent policy measures. By adhering to the considerations of coherent policy frameworks, preserving regime coherence aftershocks, addressing low institutional capacity, and maintaining a medium-term perspective, LICs can navigate the complexities of external shocks and frictions, ensuring sustainable economic development and stability.

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Annex I. Economic Context in Low-Income Countries (LICs)

1. The application of the IPF depends on the country-specific economic context. IPF-based guidance should consider the sources of shocks, the severity of frictions, the country's exchange rate and monetary regime, and potential policy incoherence. This section provides key descriptive statistics and trends and explains the empirical evidence on each of these. Any analysis of LICs should bear in mind the substantial heterogeneity within this set of countries, i.e., all LICs do not share the same characteristics, and some of the characteristics described below will also be present in countries other than LICs. Correspondingly, a thorough country-specific analysis is needed in any IPF application.

A. Sources of Shocks and IPF Frictions

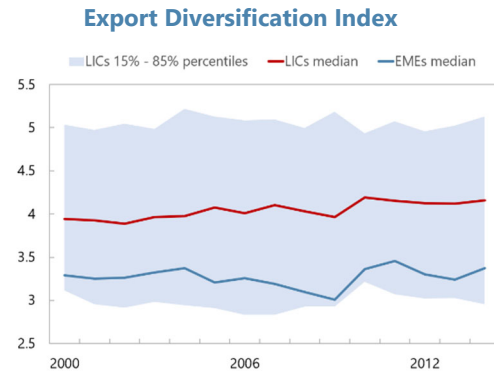
2. The prevalence of fundamental and non-fundamental shocks may be notably higher in LICs than in AEs and EMEs. While the relative frequency of fundamental shocks varies across LICs due to substantial heterogeneity, a high exposure to supply shocks as well as volatile fiscal policy and political environments can render fundamental shocks more prevalent in many LICs. Many LICs have low exposure to non-fundamental shocks arising from non-resident short-term portfolio outflows due to a lower degree of capital account openness and financial integration, but other LICs likely have significant exposure to such flows, and many LICs have exposure to non-fundamental shocks arising from residents using FX saving vehicles unless outflow CFMs can contain them. Many LICs are prone to compound crises, where multiple fundamental and non-fundamental shocks coincide and interact.

3. Supply shocks are prevalent in LICs. A high share of food in consumption, and often large rain-fed agriculture sectors imply that weather-related shocks have large effects on output and inflation. Commodity dependence, both in production and trade, exposes LICs to powerful terms of trade shocks (Annex I. Figure 1) As a result, as the income per capita is lower, the correlation between inflation and the output gap become negative in some countries, presenting an acute version of the usual challenge that supply shocks pose to the conduct of monetary policy (Annex I. Figure 2).¹ Further granularity on these macroeconomic patterns, including cross-country differences in GDP growth, output gaps, and real per capita income gaps, is available in IMF (2025), which provides disaggregated analysis across various LIC groupings.

¹ See Berg and Portillo (2018), and Melina and Portillo (2018), for LICs in Sub-Saharan Africa.

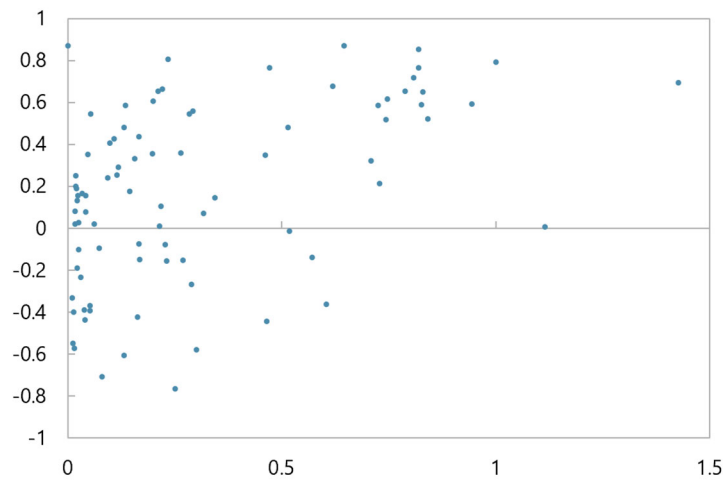
Annex I. Figure 1. Export Diversification in LICs

Type of Export		
Main Export	# Countries	Percentage
Fuel exports	5	7
Other commodities	25	37
Diversified	28	41
Tourism	10	15



Source: (IMF, 2022c) and (IMF, 2023c) A lower value implies more diversification.

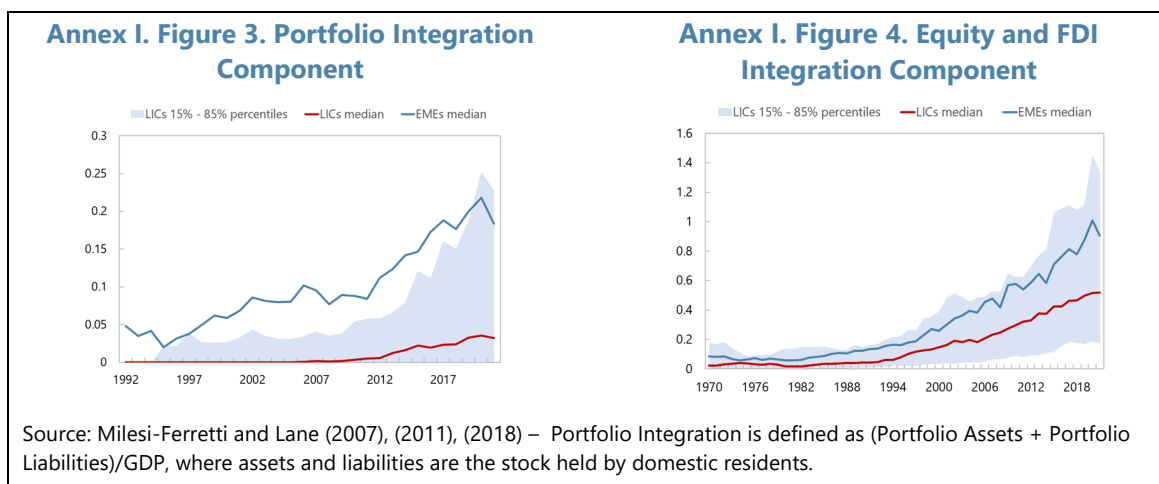
Annex I. Figure 2. Correlation Between Output Gaps and Inflation Vs Real Income Per-Capita



Correlation (at business cycle frequency) between inflation and output gap (y-axis) and real income per capita (x-axis). Real income per capita (2012) is normalized by income per capita for the US.

Source: Berg and Portillo (2018).

4. The median LIC is much less financially integrated than EMEs, although some LICs do have notably high portfolio integration. Portfolio debt flows by non-residents, which may be susceptible to non-fundamental or “noise trader” shocks as described by Basu and other, (2020) and Adrian and others, (2021), are substantially lower in LICs. Despite steady but slow growth, portfolio flows in the median LIC are currently at levels similar to those observed in the EMEs during the mid-1990s (Annex I. Figure 3).² Only the highest 15th percentile of LICs appear to be as integrated as the median EME in recent years. In contrast, equity and FDI flows are closer to EME levels, with the median LIC now reaching levels comparable to the median EME in the mid-2000s (Annex I. Figure 4). Such flows are subject to both fundamental and non-fundamental shocks.



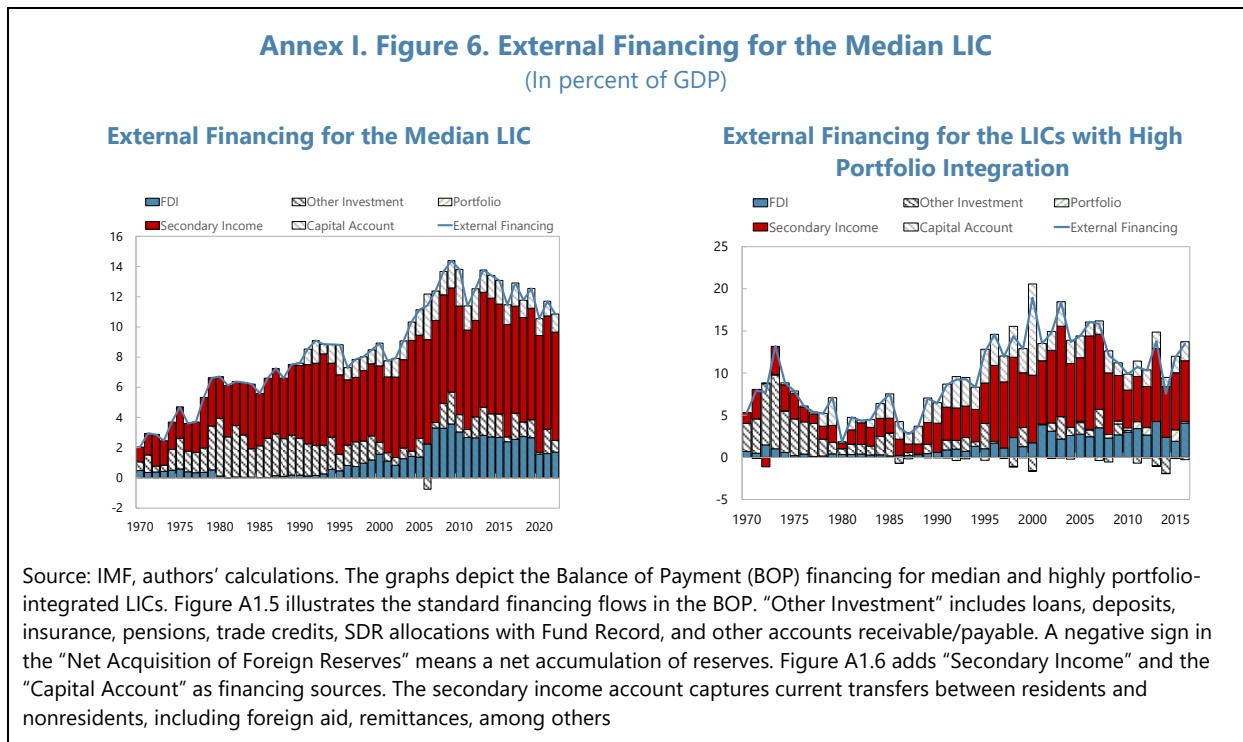
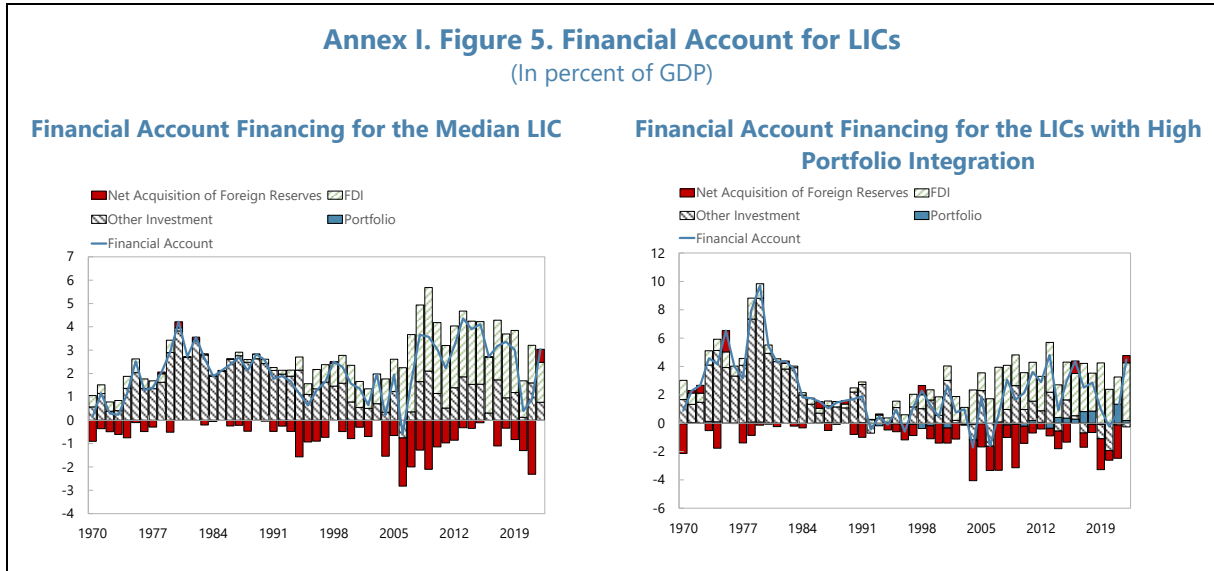
5. However, the presence of FX saving vehicles in many LICs can create susceptibility to capital outflow shocks that arise from residents’ actions. The option for depositors to save in foreign currency means that shifts in depositor preferences towards foreign currency can lead to increases in outward “other investments” as banks react to these shifts, and hence to downward exchange rate pressures in the presence of shallow FX markets.³ Relatedly, in the context of large deposit dollarization in the median LIC (Annex I. Figure 12 below) and the associated FX mismatch, non-fundamental resident outflow shocks can have potentially important implications in LICs. Such shocks can trigger the friction of shallow FX markets described in Basu and others, (2020) and Adrian and others, (2021).

6. Overall, LICs are generally more exposed to fundamental capital flow shocks, and less to non-fundamental external portfolio flow shocks, but may have some exposure to resident outflow shocks. In particular, remittances, grants, concessional loans, and FDI are the main source of financing for the median LIC (Annex I. Figures 5 and 6). Those LICs with higher exposure to portfolio

² These data include both local currency and foreign currency-denominated flows. Basu and others (2020) emphasize risk associated with currency exposure and hence stress local currency-denominated capital flows as the focus of risk appetite shocks. However, such risk appetite shocks can also affect the spread on foreign currency-denominated capital flows and have similar non-fundamental effects on the uncovered interest parity (UIP) premium.

³ “Other investments” in Annex I. Figure 5 and 6 include trade credits, bank lending, and currency and deposits, among other items.

debt flows and resident outflow episodes will have a commensurately higher exposure to non-fundamental shocks.



7. Fiscal policy is often a source of volatility rather than another stabilizing policy lever.

Low revenue collection in the face of large informal sectors, a high dependence on volatile commodity-based revenues and volatile aid flows, as well as political volatility, create an environment where fiscal shocks are often large and counter-cyclical policy unavailable. A high share of consumers with no savings to draw on, and little access to external financing to smooth these shocks, implies large destabilizing impacts, as does the risk (discussed below) that fiscal expansions may put additional pressure on the balance of payments and thus aggravate the effect of adverse external shocks. Moreover, for more financially integrated LICs with access to external borrowing, such access is typically pro-cyclical, as in many lower-capacity and poorer EMEs.⁴

8. Weak fiscal policy frameworks can lead to a fiscal dominance of monetary policy.

If there is a risk that fiscal deficits may be monetized, a fiscal expansion may be associated with expectations of future monetary easing even if the inflation expectations are above target. In some LICs, fiscal dominance may also take the form of financial repression, whereby the central bank keeps domestic interest rates artificially low to contain sovereign financing costs—potentially at the expense of price stability, financial development, or effective transmission of monetary policy.⁵ If there are frequent and large changes in expectations about fiscal policy, a substantial portion of capital flow volatility may then be fundamental in nature.

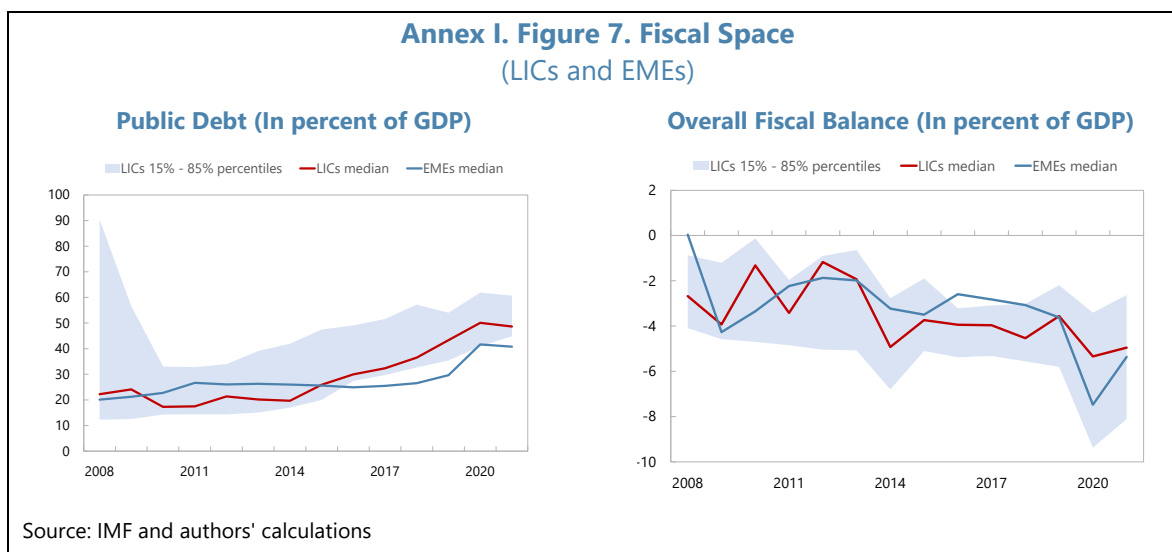
9. Low state capacity, weak fiscal frameworks, and development needs further constrain the already limited fiscal space available for stabilization. Partly as a result, LICs have experienced a steady increase in public debt over the past decade. The COVID-19 pandemic exacerbated this trend, leading to a further surge in public debt in 2020–21 (Annex I. Figure 7).⁶

10. Next, we show evidence that LICs tend to present all three frictions emphasized in the IPF models: (A) shallow FX markets; (B) private sector balance sheet vulnerabilities to exchange rate changes; and (C) weakly anchored inflation expectations which move with the exchange rate.

⁴ Following Neumeyer and Perri (2005), several studies argue that the pro-cyclicality of fiscal policy in EMEs is key for understanding why they feature more volatile business cycles than AEs (Alesina and others (2008); Gavin and Perotti (1997); Kaminsky and others (2004); and Talvi and Vegh (2005)). This pro-cyclicality can be the optimal policy for sovereigns facing counter-cyclical default risk and thus more difficulties borrowing in bad times (Bianchi and others (2023)). However, improved institutional quality have allowed some economies facing sovereign risk to graduate from pro-cyclical to counter-cyclical fiscal policy (Frankel and others (2013); and Vegh and Vuletin (2014)).

⁵ Hooley and others (2021) find that fiscal dominance in Sub-Saharan Africa is affected by legal limits and alternative financing options, and it can have significant effects on exchange rates and inflation.

⁶ Chuku and others (2023) find that the public and publicly guaranteed debt-to-GDP ratio increased by an average of one percentage point per annum between 2010 and 2019 and jumped by 13 percentage points in 2020 due to COVID-19-related impacts. About 60 percent of LICs were facing high debt vulnerabilities at the end of 2022.



FX Market Shallowness

11. FX markets in LICs are typically very shallow, exacerbated by the prevalence of long-standing CFMs, frequent use of FXI, and structural factors. These structural issues include underdeveloped domestic financial markets, inadequate regulatory frameworks and enforcement, limited technological infrastructure, and a lack of interested investors and financial institutions, all of which contribute to low liquidity. Wider bid-ask spreads, higher transaction costs, processing delays, and increased perceptions of currency risk are both symptoms and causes of this market shallowness. More broadly, LIC financial assets are often treated as poor substitutes for foreign assets due to both the mentioned structural reasons and heightened idiosyncratic country risk.

12. These features limit the options for managing exposures and have an ambiguous effect on exchange rate volatility. While risk appetite shocks from small-scale portfolio and other private capital flows may be quantitatively minor, they can trigger large movements in the risk premium due to fewer investors arbitraging based on fundamentals. Similarly, any shock to the balance of payments is likely to generate a relatively small volume of stabilizing speculative flows, necessitating adjustments in aggregate demand or large movements in the exchange rate (or interest rates) to restore balance. All this implies that in a free float, risk appetite shocks can be significant sources of volatility despite the small scale of flows.⁷ On the other hand, FXI is likely to be more effective in shallow markets, which makes pegs easier to defend and can reduce exchange rate volatility for any exchange rate regime. The presence of long-standing CFMs may play a complementary role in intermediate regimes, enabling the management of an adjustable parity with less susceptibility to speculative attacks.

⁷ Kaltenbrunner and others (2022) investigate the microstructure of FX markets in African lower- and middle-income countries and find that liquidity is low and “lumpy,” with evidence of FX hoarding which may affect price dynamics at stress events.

13. Exchange rate volatility (Annex I. Figure 8) and the level of the uncovered interest parity (UIP) premium (Annex I. Figure 9) are higher in the median LIC than in the median EME, with a vast interquartile range. High exchange rate volatility is perhaps surprising, given the prevalence of intermediate regimes and hard pegs. This outcome highlights the unstable nature of many intermediate regimes in LICs.⁸ Specifically, LICs with intermediate regimes exhibit significantly higher volatility of the nominal exchange rate than that observed in EMEs with such regimes. LICs with floating regimes exhibit more exchange rate volatility than that in LICs with intermediate regimes but often less volatility than that observed in EMEs with floats. This latter finding can also underscore the need to further develop floating regimes in LICs to enhance exchange rate flexibility. Regarding the level of the risk premium, it is typically higher in LICs than EMEs, reflecting the above drivers of volatility as well as default risk and perhaps higher underlying real rates due to capital scarcity.

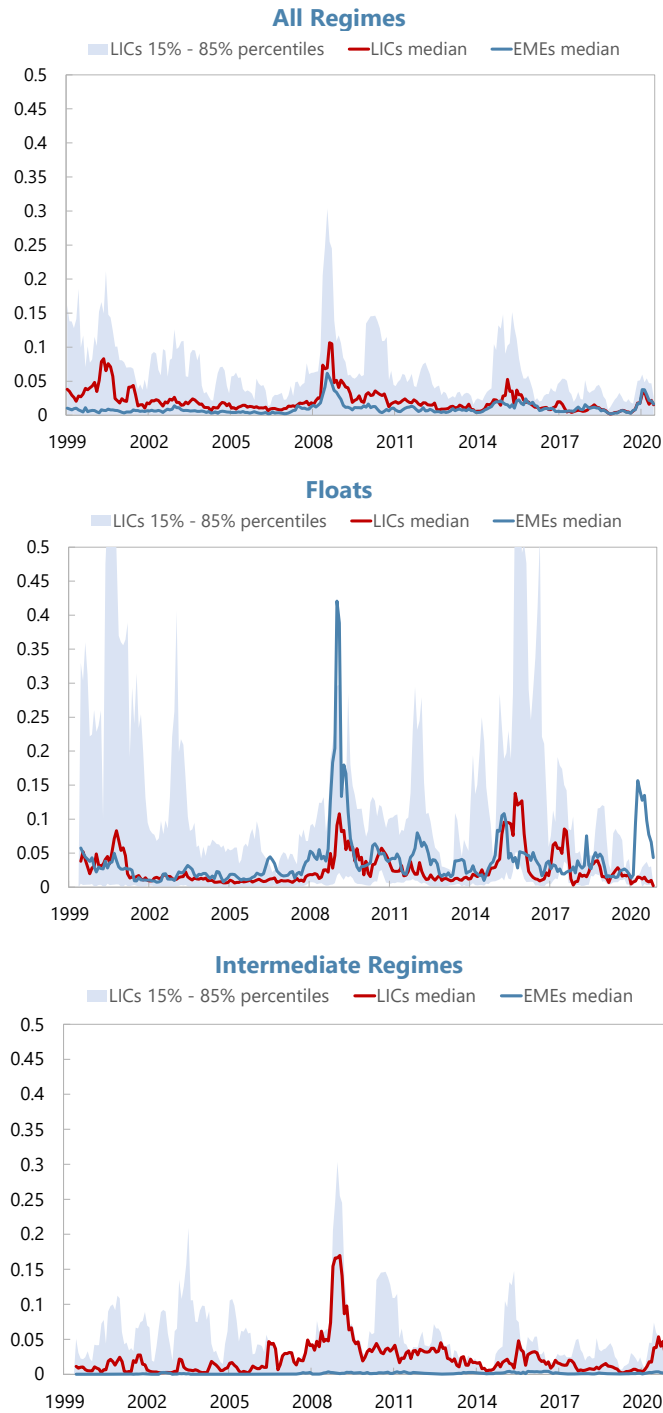
14. An important implication of shallow FX markets is that expansionary fiscal policy that is domestically financed is more likely to depreciate the exchange rate. This result is contrary to the standard view from AEs, which typically assumes deep markets. The logic is that there are two effects of a fiscal expansion on the balance of payments (holding the exchange rate constant): (i) higher public import demand and external debt from the fiscal expansion; and (ii) capital inflows attracted by the higher interest rates that the fiscal expansion may also produce. If the FX market is very shallow, i.e., a given increase in interest rates attracts very little private foreign capital, the first effect is likely to outweigh the second in terms of the effect on external premia.⁹ In this case, and absent additional official financing, a depreciation (or an output contraction) will be needed to compress private import demand and thereby restore external stability.¹⁰

⁸ Okot and others, (2022) highlights several key drivers of exchange rate volatility in LICs, including the significant impact of commodity price fluctuations due to export concentration, macroeconomic fundamentals such as inflation and fiscal policy, and the effects of capital flows on currency stability.

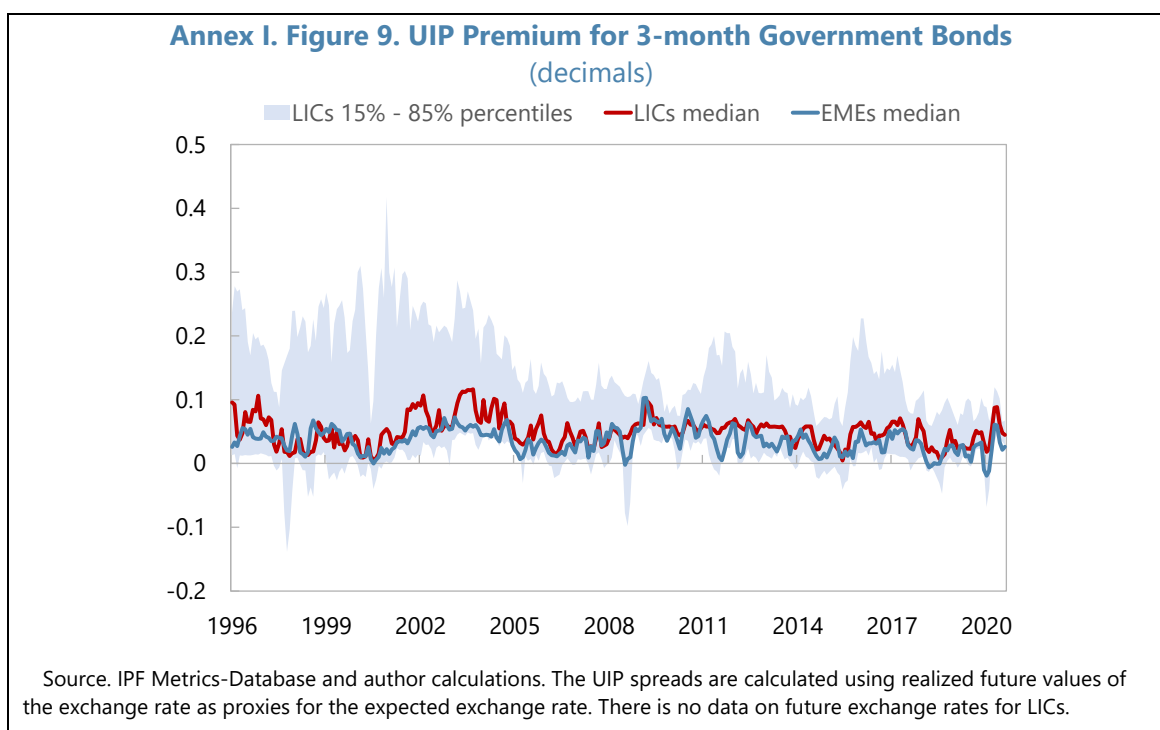
⁹ The overall response of imports to a fiscal expansion depends on the import content of public spending, the elasticities of imports and exports to the exchange rate, and—as is emphasized in the text—the depth of the FX market, which determines the endogenous response of private capital flows.

¹⁰ See Berg and others (2023) for a discussion and Zanna and others (2010) for a micro-founded model. This outcome is also described in Basu and Gopinath (2024).

Annex I. Figure 8. Nominal Exchange Rate Volatility
(Median LIC and EME)



Source. IPF Metrics-Database and author calculations. The index measures the 5-month moving average of the square monthly changes of the exchange rate.

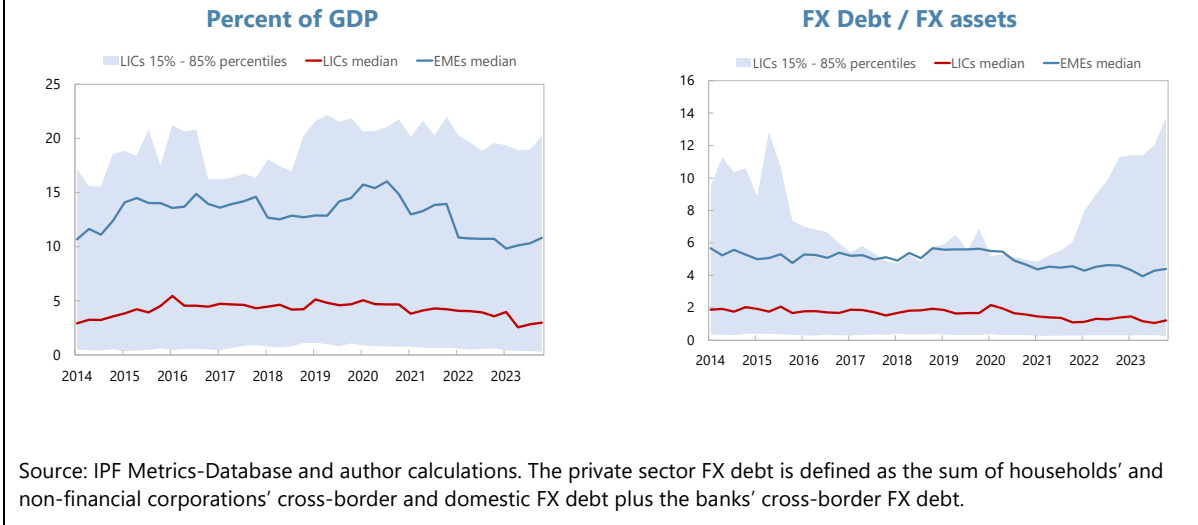


Private Sector FX Mismatches

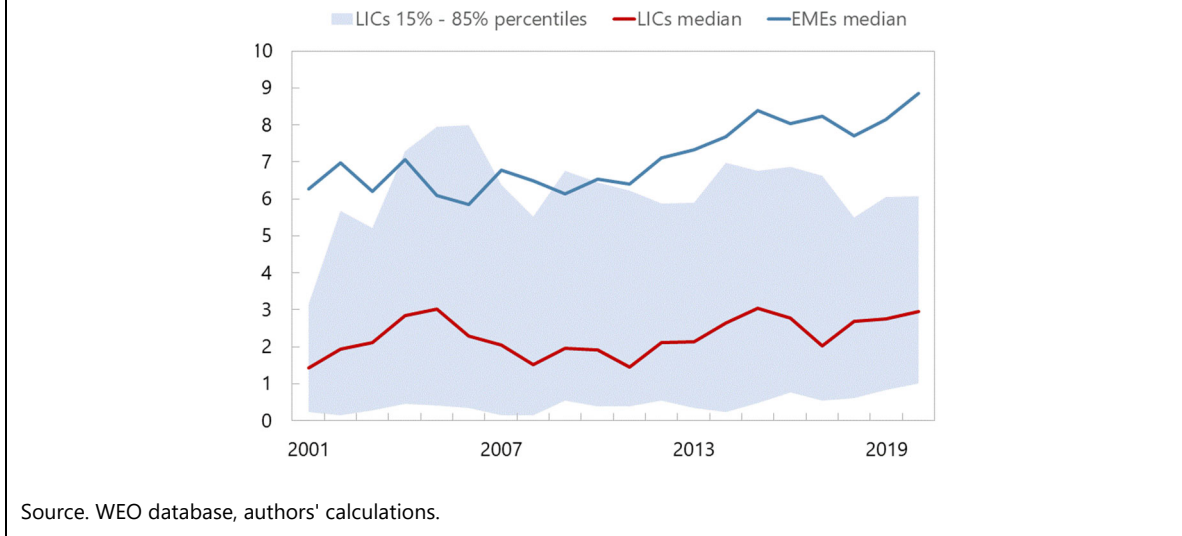
15. Total private sector FX debt, both domestic and external/cross-border, of the median LIC is much lower than that of the median EME, although some LICs do have notably higher exposure. While LICs are typically unable to borrow in their own currency from external investors,¹¹ their restricted capital account openness has limited external FX debt levels for the private sector. Private sector FX debt of the median LIC is relatively low and stable at around 4 percent of GDP and 130 percent of FX assets, both about one third of the corresponding ratio for the median EME (Annex I. Figure 10). As usual, heterogeneity is evident: the top 15th percentile of LICs has more exposure than the median EME on both measures. Further, total short-term external debt is also low (Annex I. Figure 11). This reduces the immediate pressure for refinancing in case of sharp currency depreciation.

¹¹ Eichengreen and others (2023) document that their identified problem of “original sin” continues to endure for low-income countries.

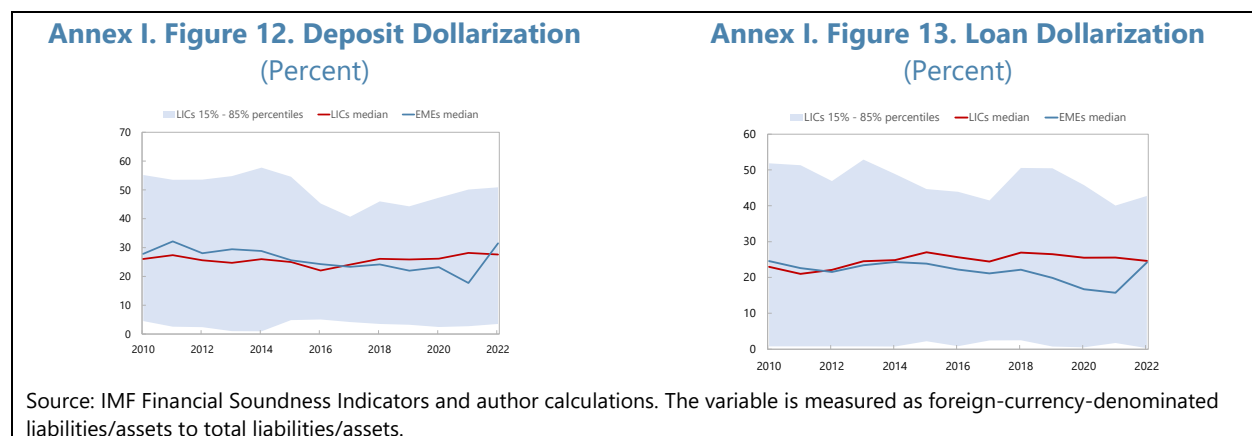
Annex I. Figure 10. Private Sector FX Debt



Annex I. Figure 11. Short-Term External Debt (in percent of GDP)



16. Financial dollarization is often significant in LICs (Annex I. Figure 12 and 13), potentially creating substantial vulnerability to exchange rate movements. While the FX balance sheet mismatch at the bank level is relatively small in aggregate for the median LIC, loan dollarization can result in mismatches at the borrower level (or at the country level) when borrowers lack a natural hedge from FX income. This can increase the risk of default on FX-denominated debt during sharp exchange rate depreciations (IMF (2023a)). As shown in Annex I. Figure 13, loan dollarization in LICs is comparable to that in EMEs, indicating that the indirect credit risk from a currency depreciation is a significant concern, despite lower external FX debts in LICs. Moreover, FX maturity mismatches, indicating an FX financing gap, may present additional risks for the banking sector. Additionally, dollarization can increase exchange rate pass-through to inflation by influencing pricing behavior, supply chains, and inflation expectations.¹²

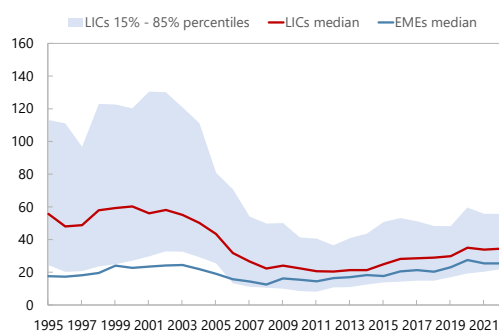


17. Public external debt may constitute a significant source of currency mismatches for LICs, as government revenues are predominantly in local currencies, leading to heightened exposure to exchange rate volatility and challenges in debt servicing. Public external debt is a large share of GDP in LICs (Annex I. Figure 14). External borrowing tends to be concessional (Annex I. Figure 15), which limits the susceptibility of these debt inflows to sudden stops. However, a large exchange rate depreciation could nonetheless increase the debt service burden, increasing required financing of the current account and threatening debt sustainability.¹³ Beyond direct effects on the public finances and the current account, external public debt exposure can create FX-related vulnerabilities in the financial system through the sovereign-bank nexus. For the median LIC, the financial system's claims on the public sector are similar to those in EMEs (Annex I. Figure 16). However, nearly all these claims are denominated in local currency in LICs, mitigating banks' direct exposure to FX valuation risk (Annex I. Figure 17). Nonetheless, banks may face indirect exposure through potential government defaults or changes in risk ratings, among other factors.

¹² Factors that may increase dollarization include low credibility of domestic policies (e.g., Mendoza, (2001), global volatility (e.g., Mwase and Kumah, (2015), and excessive stabilization of the exchange rate (e.g., Csonto and Gudmundsson, (2020)).

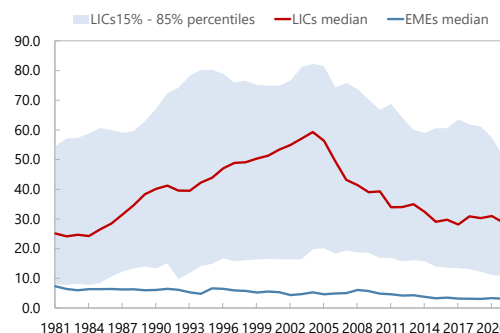
¹³ Sy (2015) and Alter and others (2025) document the evolving landscape of external funding flows to governments in sub-Saharan Africa. Jonasson and others (2024) provide principles for the management of FX risk in sovereign debt exposures.

Annex I. Figure 14. Public External Debt to GDP



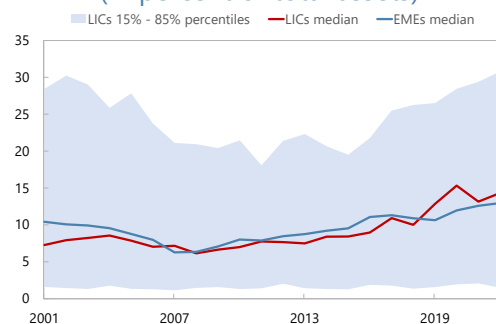
Source: WEO, authors' calculations.

Annex I. Figure 15. Share of Concessional Loans to External Debt



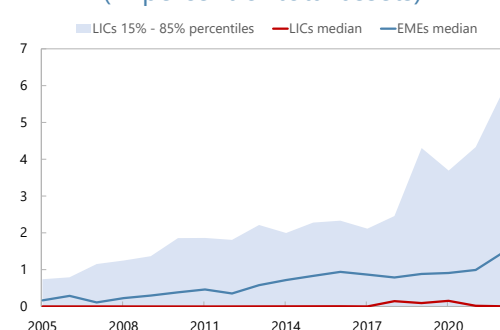
Source: International Debt Statistics, World Bank and authors' calculations.

Annex I. Figure 16. Claims of Banks on Local, State and Central Governments
(In percent of total assets)



Source: IMF, International Financial Statistics (IFS, (2022d)) and authors calculations

Annex I. Figure 17. FX claims of Banks on Local, Central Governments and SOEs
(In percent of total assets)



Source: Dehmej (forthcoming) and authors' calculations.

Risk of De-Anchoring Inflation Expectations

18. Central banks in LICs often struggle to establish clear nominal anchors and, more broadly, to achieve monetary policy credibility. This partly reflects prevalent supply shocks, volatile fiscal policy and uncertain fiscal sustainability, and low bureaucratic capacity. Opaque regimes are both a result and a contributor. A combination of structural factors and weak regimes also undermines monetary transmission, which may make execution of monetary policy more difficult.

19. Weak fiscal frameworks and governance often lead to monetary policy being subject to strong fiscal dominance, reducing credibility. Many LICs allow direct financing of government deficits in some form, fostering broad-based fiscal dominance. In such circumstances, fiscal dominance is often associated with restrictions and political pressures on central bank's ability to raise its policy rate, potentially harming price and macroeconomic stability (Jacome and others (2012)). Even if the central bank retains latitude to adjust its monetary policy stance, persistent large scale direct financing at below market rates weakens its balance sheet. The weaker balance sheet

may make the central bank less willing or able to take necessary actions to ensure price stability, as these actions would lead to further balance sheet losses Adrian and others, (2021).

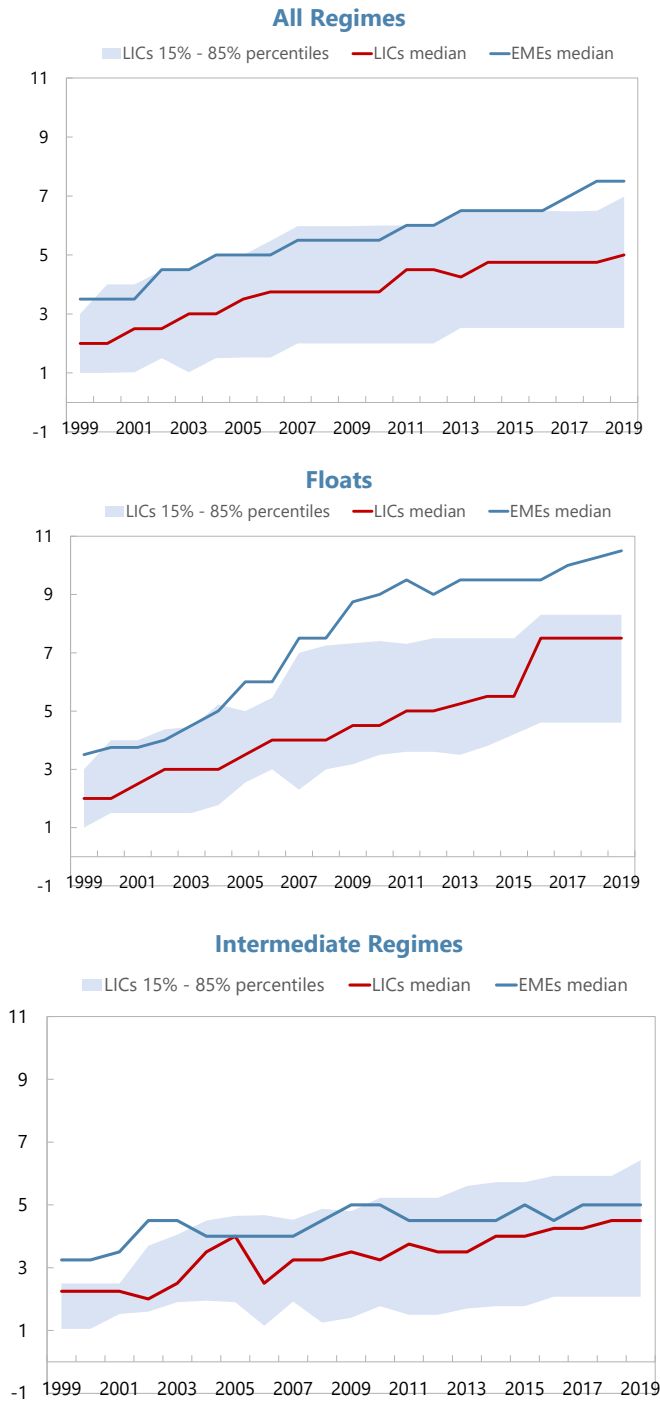
20. Low central bank independence and transparency contribute to their low credibility (Annex I. Figure 18). Across regimes, while only LICs at the top 15th percentile are comparable to the median EME, there has been consistent improvement across all percentiles. Intermediate regimes, both in EMEs and LICs, exhibit lower levels of independence and transparency. Among floats, LICs lag EMEs substantially, although they outperform intermediate EME regimes, starting in 2011. It is worth noting that transparency and central bank independence are particularly beneficial in floating regimes and are core features of inflation targeting monetary regimes. However, in certain intermediate regimes, particularly under inconsistent policies, aspects of transparency like disclosing planned movements in the parity may be less evidently desirable.

21. Low credibility can also flow from weak monetary policy transmission. Underdeveloped financial markets and opaque and non-credible policy regimes may lead to weak effects of standard monetary policy instruments. High rates of dollarization may weaken transmission further. The relative importance of structural factors and the regime itself in generating weak transmission has been a subject of debate; IMF (2015) and Berg and Portillo (2018) emphasize that transmission depends on the regime, and that opaque regimes with multiple targets may themselves produce weak transmission.¹⁴ They point out that decisive and clearly communicated policy actions have the usual effects. But undoubtedly the interaction of small financial systems with the prevalence of supply shocks and fiscal volatility makes it difficult for monetary policy to play its stabilizing role. Moreover, the absence or dysfunction of markets is essential for the implementation of monetary policy, such as interbank and short-term bond markets, along with ineffective functioning of basic instruments of monetary policy operations such as standing central bank facilities, can complicate monetary policy implementation with conventional tools. At the same time, large shares of traded goods in GDP growth, given the small size of typical LIC economies, reinforces the traditional emphasis on the exchange rate as a nominal anchor.¹⁵

¹⁴ See also Mishra and Montiel (2012) and Montiel, and others (2010) for different views, and Brandao-Marques and others (2020) for EMEs.

¹⁵ We refer here to the possibility that the price level can be more responsive to changes in the exchange rate, especially as the share of exports to total output increases, while also noting the important high import dependence.

Annex I. Figure 18. Central Bank Transparency and Independence Index



Source: Dincer and others (2022) transparency refers to the openness and clarity of central bank policies and operations. Meanwhile, central bank independence relates to the autonomy of central banks in formulating and implementing monetary policy decisions. Lower values correspond to less transparent and less independent central banks.

22. The exchange rate pass-through to inflation and inflation expectations is higher in LICs than in EMEs across horizons and percentiles (Annex I. Table 1). Pass-through estimates, calculated using country-specific local projection regressions, are presented across the 25th, 50th, and 75th percentiles for different time horizons in Annex I. Table 1. For instance, at the 24-month horizon, the median exchange rate pass-through to CPI inflation is 0.59 in LICs compared to 0.17 in EMEs, and the 75th percentile reaches 0.61 in LICs, significantly above the 0.31 observed in EMEs. A similar pattern holds for inflation expectations, with LICs showing greater sensitivity than EMEs across all horizons. The higher pass-through in LICs can be attributed to structural and economic factors. First, LICs often have a larger share of imported goods in final consumption, amplifying the immediate (first-round) impact of exchange rate fluctuations. Second, price indexation practices—such as linking rents or durable goods prices to foreign currencies—magnify the initial pass-through. These substantial first-round effects may be compounded by second-round dynamics, such as wage-price spirals, which sustain and propagate inflationary pressures over time. By contrast, EMEs typically have more diversified consumption baskets, less pervasive indexation, and stronger institutional frameworks, which may help dampen the persistence of exchange rate shocks.

Annex I. Table 1. Exchange Rate Pass-Through to Inflation and Inflation Expectations

Time Horizon	Percentile	CPI Inflation (EMEs)	CPI Inflation (LICs)	Inflation Expectations (EMEs)	Inflation Expectations (LICs)
12-Month	25%	0.08	0.00	0.03	0.10
	50%	0.14	0.19	0.08	0.15
	75%	0.28	0.30	0.22	0.20
24-Month	25%	0.08	0.30	0.01	0.12
	50%	0.17	0.59	0.04	0.16
	75%	0.31	0.61	0.12	0.20
36-Month	25%	0.09	0.30	-0.02	0.00
	50%	0.17	0.36	0.03	0.09
	75%	0.73	0.42	0.14	0.18

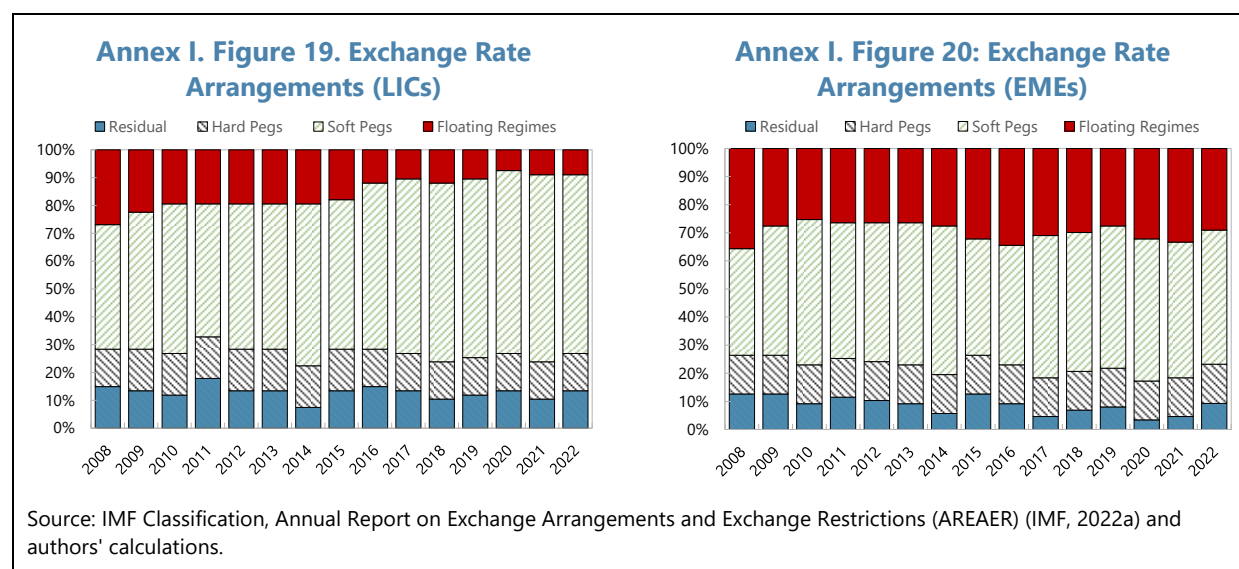
Source: Metrics-Database: The pass-through is estimated using country-specific local projection regressions. For measures of inflation and expected inflation, headline CPI inflation and the 12-month-ahead Consensus forecast inflation were used, respectively. The exchange rate was represented by the nominal effective exchange rate (NEER). Control variables include the current and two lags of monthly exchange rate changes, two lags of year-on-year inflation, two lags of the cyclical component of industrial production, and two lags of the monthly percentage change in global oil and food price indices. The indicator section also discusses alternative measures to identify the size of the pass-through.

23. In this environment, sharp exchange rate depreciations can de-anchor inflation expectations and threaten price stability. It is challenging to manage a float in this environment—developing useful inflation forecasts and implementing operating frameworks is unusually difficult, and the temptation to hold on to the exchange rate as the nominal anchor is strong. Such an environment is perhaps one reason both for the prevalence of intermediate regimes and the fact that exchange rate volatility remains high even there. Countries may attempt to sustain a stable exchange rate as a way to control inflation and provide a nominal anchor in a context in which monetary policy or perhaps macro policy more broadly is not credible. Large fundamental shocks and weak institutional capacity—e.g., to manage reserves, debt, or fiscal policy—then may drive them off the peg. Hard pegs and soft pegs with plentiful reserve buffers do not generally suffer from this friction.

They may “import monetary policy credibility.”¹⁶ Thus, a hard peg may be used to anchor inflation expectations, at the cost of losing the ability to adjust the exchange rate parity in response to large and persistent real shocks.

B. Exchange Rate Arrangements and Monetary Policy Frameworks

24. A key feature of LICs is the prevalence of intermediate exchange rate regimes. In 2022, 13 percent of LICs followed a de facto hard peg and only 9 percent a floating regime (essentially all of which also make use of FXI). The majority follow an intermediate regime (Annex I. Figure 19). In contrast, about 28 percent of EMEs float, although nearly two-thirds of them also adopt an intermediate regime or a hard peg (Annex I. Figure 20).¹⁷

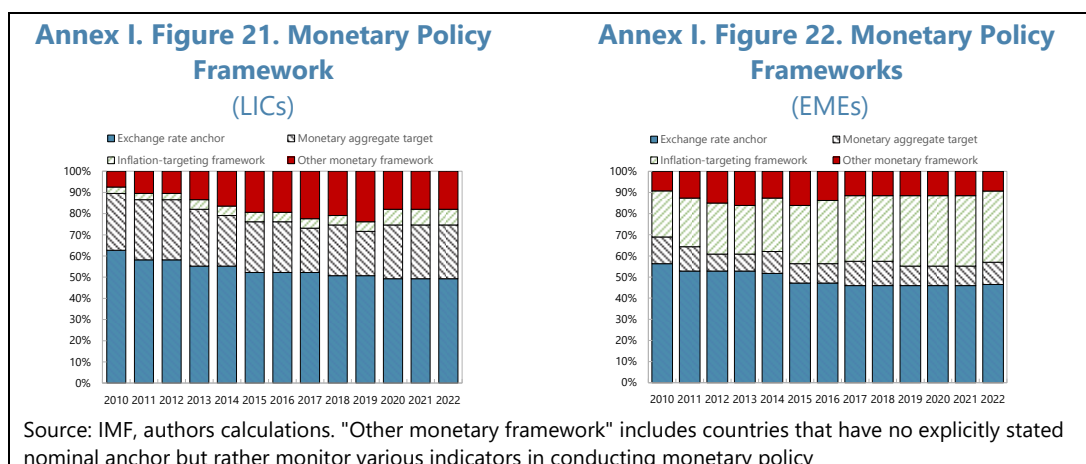


25. The complex nature of exchange regimes in LICs is mirrored in the complicated and evolving monetary policy frameworks of these countries. Annex I. Figure 21 and Annex I. Figure 22 provide an overview of the monetary policy frameworks for LICs and compare them with those of EMEs. In 2022, only 8 percent of LICs employed an inflation targeting framework, while 26 percent implemented money targets. In contrast, among EMEs, 33 percent adhered to an IT framework, and 9 percent utilized a money targeting regime. Exchange rate anchors are prevalent in both LICs and EMEs, with 49 percent of LICs and 46 percent of EMEs following this framework.

¹⁶ A peg may help improve the monitorability of the country’s actions and thereby improve its reputation (e.g., Herrendorf, (1997). LICs with pegs may be able to achieve lower core inflation given that most of the variation in inflation among LICs over the past decades is accounted for by external shocks (Ha and others (2019)).

¹⁷ These are de facto classifications as identified by IMF staff and reported in the IMF (2022a). In these statistics, “soft pegs” are non-market-determined rates and encompass a range of arrangements, including conventional peg, stabilized arrangement, crawling peg, crawl-like arrangement, and pegged exchange rate within horizontal bands. “Floating regimes” are market-determined and encompass both float (with some FXI, often called a “managed float”) and free float regimes. “Hard pegs” involve a currency board or the absence of separate legal tender. “Residual” refers to the “other managed arrangement” category.

The exchange rate regime and monetary framework determine the transmission of shocks into domestic macroeconomic and financial variables.¹⁸



26. The exchange rate regime and the monetary policy frameworks do not match one-to-one. In LICs for example, very few floats implement explicit IT. Most pursue some form of de facto or “lite” IT, where inflation stability is one—perhaps the most important—of several objectives, such as output and exchange rate stability and growth, among others. Money targets are often part of the de jure regime, but mostly imperfectly signal the direction of monetary policy rather than serve as a nominal anchor. These money targets are implemented flexibly and often missed in practice, providing little information about policy changes or economic outcomes.¹⁹ This flexibility helps avoid counterproductive responses to shocks, such as to supply or money demand, but it leaves the stance of policy undetermined. Meanwhile, even in floats, FXI is often used and in many instances opaquely. The misleading role of money targets as an anchor, combined with an opaque use of FXI can make even a floating regime hard to understand and communicate, impairing the transmission of monetary policy signals and credibility. Operating frameworks are generally similarly opaque, typically lacking a well-defined and influential policy interest rate.²⁰

27. Policy in intermediate regimes is difficult to characterize. The exchange rate is often used as a nominal anchor, particularly in the context of low-credibility or weak institutional environments, where the strength and visibility of its connection to the price level, controllability via FXI, and political importance may be attractive to policymakers. In this LIC context, countries may exhibit a “fear of floating” related to IPF frictions such as shallow FX markets, balance sheet vulnerabilities, and unanchored inflation. Common currency area arguments may also be cited as a reason to peg to, or adopt, the currency of a major trading partner (Mussa and others (2000)). Only some countries follow

¹⁸ Levy-Yeyati and Sturzenegger (2003) find that for developing economies, less flexible exchange rate regimes are associated with slower growth and greater output volatility. Obstfeld and others (2019) find that in EMEs, such regimes involve more transmission of the global financial cycle into domestic asset prices. Carare and others (2023) focus on LICs and find that the transmission of global shocks into domestic GDP is higher in such regimes.

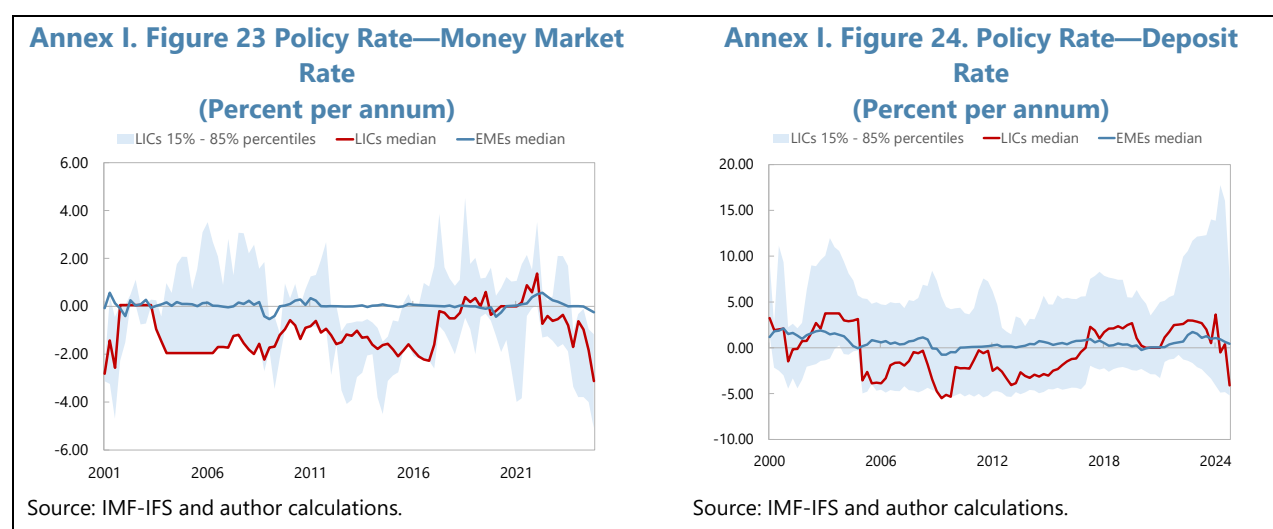
¹⁹ On this point, see IMF (2015).

²⁰ Countries in the “other monetary framework” category are even more opaque. This category refers to countries that have no explicitly stated nominal anchor but rather monitor various indicators in conducting monetary policy.

traditional pegs with an announced parity that the central bank is committed to defending. In these regimes, FXI is naturally amongst the policy tools used to maintain the exchange rate objective, alongside the chosen interest rate. The option to adjust the parity (or move to a float) in intermediate regimes means that the extent of intervention is a choice. Maintaining the same parity after large shocks may not always be possible in the context of limited FX reserves or advisable in the face of large and persistent fundamental shocks.

28. Weaker institutions and governance imply that LICs have less capacity to develop and implement policy. For instance, central bank independence may be elusive. This suggests that the achievement of transparent, well-communicated, and forward-looking monetary policy regimes is especially challenging and complex regimes are difficult to manage. As part of the broader developmental process, most LICs are engaged in efforts to deepen and strengthen their financial systems, and to modernize and improve the functioning of their monetary policy regime. This is especially the case for countries with nascent, or incipient, floating regimes.²¹

29. Lack of effective frameworks for formulating and implementing monetary policy, coupled with structural impediments, lead to weak transmission of changes in the policy stance. The transmission of policy interest rates to even interbank rates can be weak due to limited capacity in liquidity management or weak central bank balance sheets (Annex I. Figure 23). The transmission to deposit rates can be hampered by the lack of competition in concentrated markets (Annex I. Figure 24). Moreover, a high level of dollarization may constrain the ability of the central bank to stimulate or control the economy, when policy induced currency movements have large effects on the balance sheets of borrowers, leading to wealth effects that go in the opposite direction of the intended policy objectives (Castillo and others (2024)). Finally, underdeveloped financial markets can limit the transmission of policy rates to long rates, as well as the effect of changes in those rates on real activity and inflation.



²¹ Guidance for their efforts to improve the conceptual framework and implementation capacity, including operations and macroeconomic forecasting and analysis, as well as processes and communications, is the focus of IMF (2015).

30. Staff estimates suggest that FXI is a frequently used tool in LICs. Available data—based in part on staff-constructed proxies due to limited official reporting—indicate that FXI use is similar in LICs and EMEs and across regime groups (Annex I. Figure 25).²² The similarity for floating regimes should be read bearing in mind that very few LICs have floating regimes. Annex I. Figure 25 indicates higher levels of FXI in intermediate regimes than in floating regimes, reflecting a greater reliance on FXI to stabilize exchange rates as well as interventions driven by a desire to build reserves, although FXI levels appear closer to those in floating regimes in recent years. This also underscores some of the challenges involved in classifying regimes. The fact that FXI is frequent does not imply that the observed interventions are optimal, of course. For example, IMF (2022e) noted that countries with floating regimes in sub-Saharan Africa (SSA) leaned against commodity price shocks in recent years and argued that in many cases this was inappropriate in the context of large external imbalances and overvalued currencies.

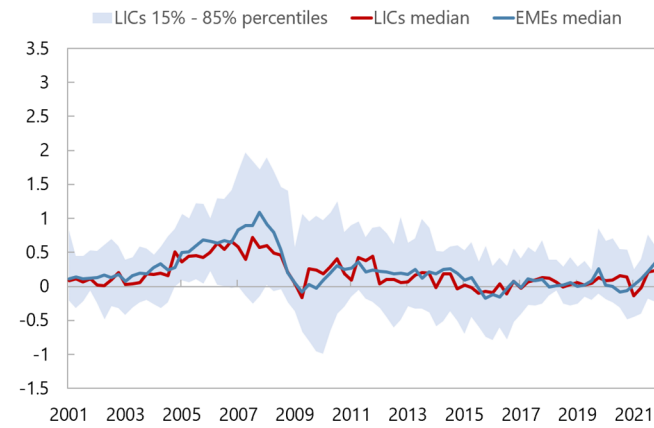
31. LICs have substantially lower levels of reserves when compared to EMEs. The range is wide, but the median LIC's reserves are substantially below those of the median EME (Annex I. Figure 26). The median LIC holds approximately four months' worth of prospective imports in FX reserves, compared to five months' worth in the median EME case (Annex I. Figure 27). For EMEs, IMF policy is to assess reserve adequacy for precautionary reasons using the ARA metric and apply a range of 100–150 percent, which could be complemented by scenario analysis in case of specific risks and vulnerabilities, as well as additional considerations which may require higher precautionary reserve holdings (IMF, 2016).

32. CFMs are more prevalent in LICs than in EMEs (Annex I. Figure 28)²³ reflecting their need to mitigate vulnerabilities stemming from underdeveloped financial markets, limited reserves, and external shocks. This higher prevalence arises from the characteristic that within intermediate regimes, LICs tend to use more CFMs than EMEs do. In such regimes, maintaining CFMs can enhance FXI effectiveness and allow central banks to adjust monetary policy while keeping the exchange rate stable. Higher prevalence of CFMs in LICs is not synonymous with active adjustment, however. Evidence suggests that CFMs are not frequently adjusted. Since 1999, EMEs have made five times more changes to capital controls than LICs have (IMF, 2025). Both active use of CFMs and maintaining longstanding controls may lead to the emergence of parallel exchange rates and multiple currency practices (MCPs) and give rise to various economic distortions (see Pasricha and Nier (2022)). In parallel, underdeveloped financial systems with thin domestic and foreign exchange markets often prompt central banks to rely on informal tools like moral suasion or direct intervention with key market players to regulate capital flows.

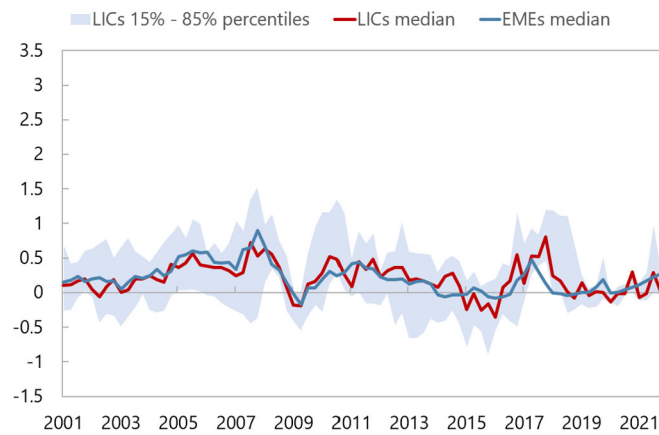
²² The recent Review of Data Provision to the Fund for Surveillance Purposes further emphasized the importance of access to reliable FXI data, especially in the context of IPF implementation IMF (2024).

²³ Higher prevalence of CFMs in LICs is not synonymous with active adjustment. Evidence suggests that CFMs are not frequently adjusted. Since 1999, EMEs have made five times more changes to capital controls than LICs (2025).

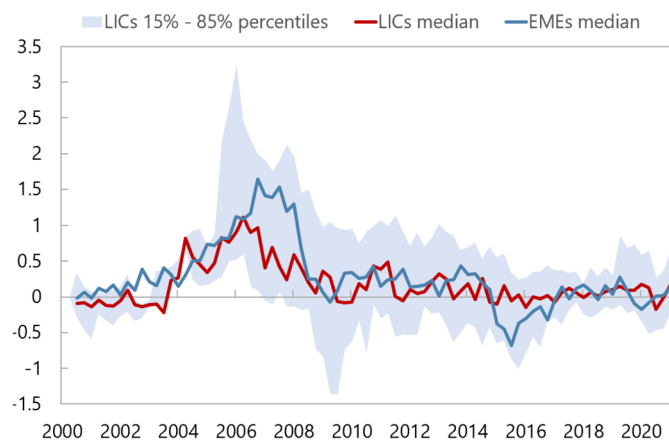
**Annex I. Figure 25. FX Intervention
(In percent of GDP)
All Regimes**



Float

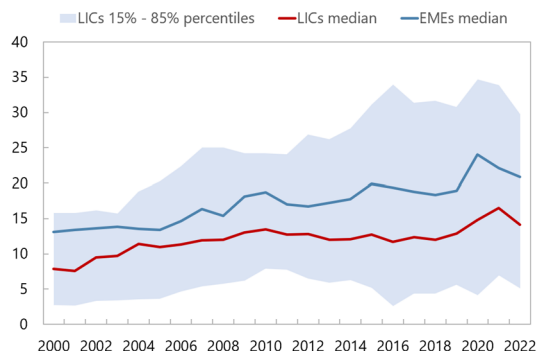


Intermediate Regimes

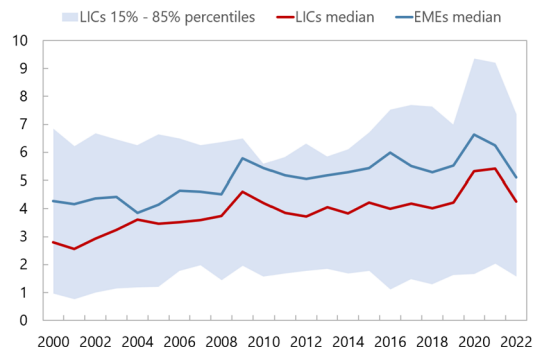


Source: Adler and others (2021) and author calculations. The figure shows the five-quarter moving average of FX interventions.

Annex I. Figure 26. Foreign Reserves to GDP



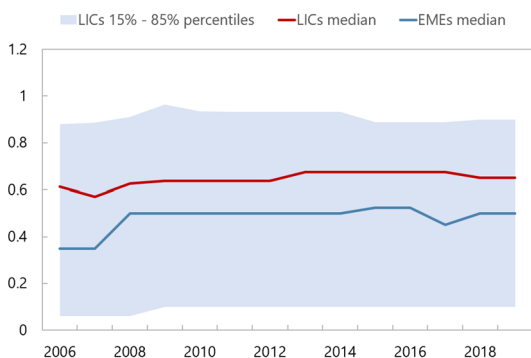
Annex I. Figure 27. Foreign Reserves to Imports



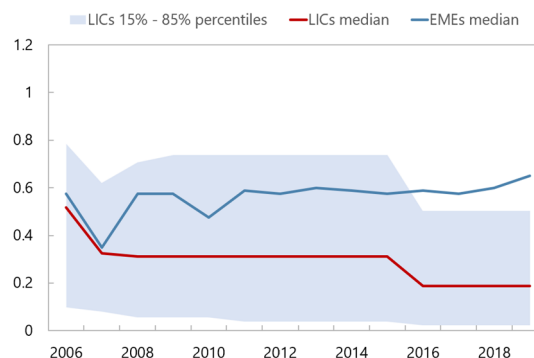
Source IMF, authors' calculations. For EMEs, IMF policy is to assess reserve adequacy for precautionary reasons using the ARA metric and apply a range of 100–150 percent (IMF, 2016).

Annex I. Figure 28. Overall Capital Account Restriction Index

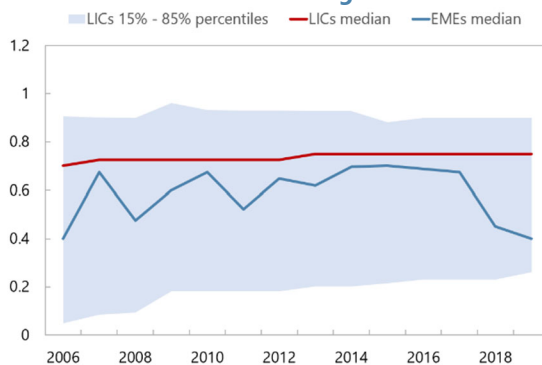
All Regimes



Floats



Intermediate Regimes



Source: Using the data from Fernández and others (2016). A lower index implies fewer capital flow restrictions.

C. Indicators of Incoherent Policy Frameworks

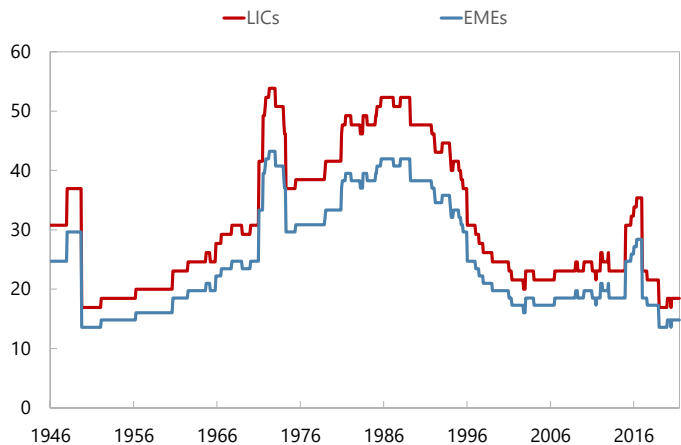
33. An incoherent policy framework—where monetary, fiscal, and exchange rate policies are misaligned or lack effective implementation—can severely undermine macroeconomic stability and limit the effectiveness of policy responses to shocks. In many LICs, such incoherence is shaped by structural constraints, limited institutional capacity, and governance issues. This section outlines a set of practical indicators that can signal policy incoherence in LICs, including the presence of parallel exchange rate markets, multiple currency practices, exchange rate restrictions, and signs of fiscal unsustainability.

34. A signal of policy incoherence is the persistence of parallel exchange markets with a large and growing divergence between parallel and official exchange rates. As shown in Annex I. Figure 29, the share of LICs with dual, multiple, or parallel exchange rates has consistently exceeded that of EMEs over the past several decades, with notable peaks during periods of macroeconomic stress. These arrangements often emerge in response to FX shortages and CFMs and are strongly associated with macroeconomic distortions, including higher inflation and lower growth. Countries with parallel exchange rates have historically experienced inflation rates six times higher and per capita GDP growth less than half that of countries with unified exchange rate systems (see Farah and others (2022)). Parallel markets can undermine monetary policy effectiveness, deter investment, and amplify economic instability. They can signal incoherence especially when the gap between parallel and official exchange rates is growing even in the absence of shocks.

35. The presence of parallel exchange rate markets in LICs is often strongly associated with the use of restrictive exchange measures, including multiple currency practices (MCPs) and exchange rate restrictions. As shown in Annex I. Figures 30–32, LICs maintain a significant number of restrictive exchange measures, and many LICs continue to apply MCPs and exchange restrictions. These measures are typically introduced to allocate and prioritize limited FX resources in the face of external pressures or reserve shortfalls. However, by distorting price signals and segmenting FX markets, they can reinforce incoherence in the broader policy framework if countries persistently and/or increasingly rely on them as a substitute for warranted macroeconomic policy adjustments. Moreover, such restrictions act as barriers to trade, investment, and international monetary cooperation.

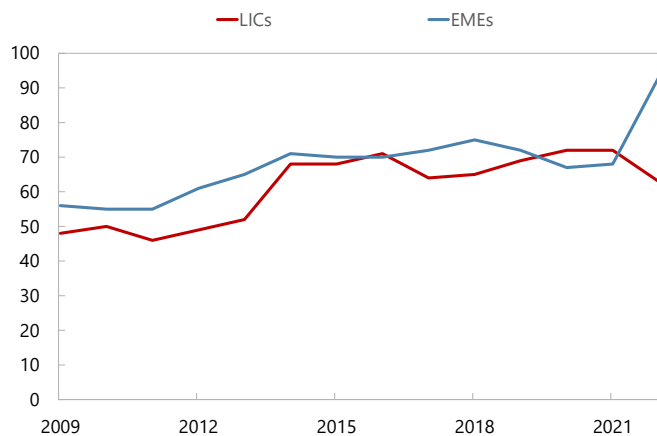
36. Persistent exchange market pressure (EMP) can indicate stress in the FX market owing to a lack of warranted macroeconomic policy adjustments, even when the nominal exchange rate is relatively stable. As shown in Annex I. Figure 33, LICs have volatile EMP levels over the past two decades, suggesting frequent and sustained FX pressures. These pressures often result from weak fundamentals, fragile external buffers, and limited credibility of macroeconomic policy. In many cases, FX pressure is absorbed not through market adjustment, but through administrative controls, FXI, or the emergence of parallel markets—further reinforcing incoherence in the policy framework.

Annex I. Figure 29. Share of Countries with Dual, Multiple, or Parallel Exchange Rates



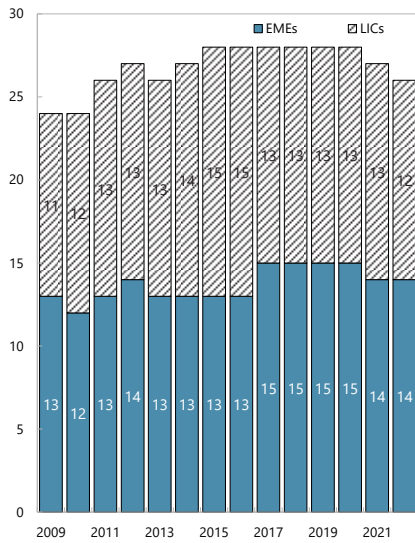
Source: Ilzetki and others (2019), and authors calculations. The index reflects the presence of dual, multiple, or parallel exchange rate arrangements based on both de jure and de facto criteria. It is constructed using responses to three questions: (i) is there an official (de jure) dual market?; (ii) is there a system of multiple official exchange rates?; and (iii) is there an informal parallel market (either tolerated or illegal), and if so, does the parallel market premium exceed 10% over the majority of a 12-month rolling period?

Annex I. Figure 30. Number of Restrictive Exchange Measures

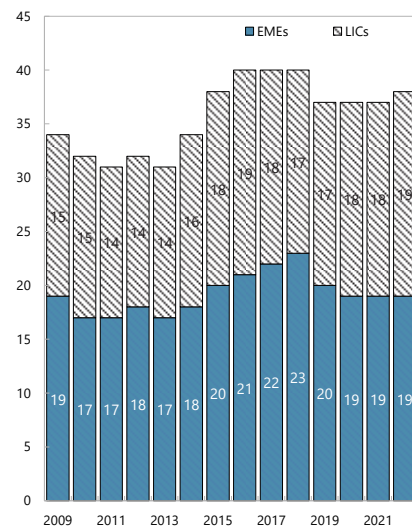


Source: IMF (2025).

Annex I. Figure 31. Number of Countries with MCPs

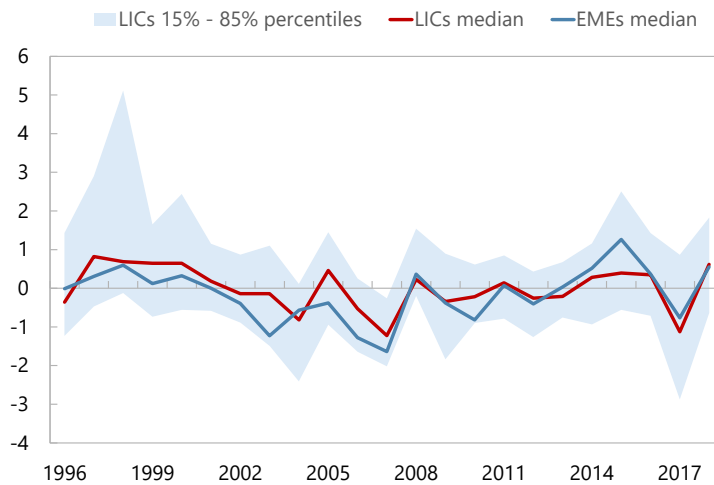


Annex I. Figure 32. Number of Countries with Exchange Restrictions



Source: IMF (2025)

Annex I. Figure 33. Exchange Market Pressure (EMP)



Source: Patnaik, and others (2017) and authors calculations. The cross-country EMP index combines changes in exchange rates, interest rates, and, where available, international reserves, standardized by historical volatility, to allow consistent comparisons.

37. A further indicator of policy incoherence is the elevated risk of debt distress in many LICs, reflecting weak fiscal anchors and broader macroeconomic vulnerabilities. High debt burdens, persistent fiscal deficits, and constrained financing options undermine the credibility of monetary and exchange rate policy, especially where fiscal dominance limits the scope for independent monetary action. This systemic vulnerability is captured in the IMF–World Bank Debt Sustainability Framework (DSF), which classifies countries based on the likelihood of debt distress. As shown in Annex I. Table 2, nearly 60 percent of LICs are at high risk of debt distress or already in debt distress, while only 7 percent are classified as low risk. Strengthening fiscal frameworks through credible consolidation, domestic revenue mobilization, and sound debt management is essential for restoring macroeconomic coherence and enabling more effective use of the IPF toolkit.

Annex I. Table 2. Risk of Overall Debt Distress

Risk Category	Number of LICs	Percentage of LICs
Low Risk	5	7%
Moderate Risk	24	36%
High Risk	28	42%
In Debt Distress	10	15%
Total	67	100%

Source: IMF–World Bank LIC DSF database. Reflects published DSA ratings as of end-March 2025.

38. Another potential indicator of incoherence is the extent of monetary financing by the central bank. While direct measures are not readily available, an imperfect proxy can be derived from the central bank’s balance sheet—specifically, the stock of claims on the government relative to total assets. A high and rising share may suggest that the central bank is financing fiscal deficits, which undermines the credibility of monetary policy and may generate inflationary pressures. More generally, where governance challenges lead to a monetary policy stance that is persistently too loose, this can lead to a de-anchoring of inflation expectations.

39. A related signal of monetary financing is a weak transmission of the policy interest rate to interbank rates. When central bank operations are largely geared toward supporting government financing needs, rather than steering short-term interest rates, the ability of the policy rate to influence broader money market conditions can be impaired. This disconnection may reflect excess liquidity in the system created through central bank financing of fiscal deficits, which dampens interbank market activity and weakens the interest rate channel of monetary policy.

Annex II. Indicators of Integrating Policy Framework (IPF) Frictions

This appendix provides an overview of key structural and macroeconomic indicators relevant for the application of the IPF to LICs.

Indicators Related to Shallow Markets and Destabilizing Risk Premia

1. **The choice of relevant indicators must be determined on a case-by-case basis, considering data availability and specific circumstances, including exchange rate regimes.** Poor data quality and long release lags pose common challenges across LICs, even in financially integrated ones. However, analysis of frictions in the IPF is likely to involve a limited set of actors, such as large banks, corporations, sovereigns, and central banks. This narrower scope may streamline data monitoring, providing a more comprehensive understanding of associated dynamics and risks.
2. **Monitoring economic conditions and changes in the risk appetite of foreign investors is more feasible in economies with prevalent internationally traded financial instruments like shares or bonds.** This is especially in commodity-exporting countries with strong interconnection between sovereigns, corporations, and banks.
3. **In LICs, the range of monitored indicators should encompass various external funding sources.** Compared to EMEs, FX markets may be less developed, with spot FX and foreign currency-denominated sovereign debt markets usually more active. In financially integrated LICs, a few large participants typically dominate markets. Minor changes in their operations can have a significant impact. Monitoring local currency-denominated debt and equity markets becomes important, especially if they attract offshore participants.
4. **Monitoring volatility and risk premia for instruments accessible to international investors, such as implied volatility indexes, and credit default swap spreads is valuable for assessing market sentiment and investors' risk perception.** Analysts and staff can monitor intraday exchange rate volatility and central bank interventions to stabilize exchange rate in floating and intermediate regimes. These interventions can be incorporated into an exchange market pressure (EMP) index, capturing the combined impact of exchange rate volatility and central bank actions.¹ Additionally, monitoring external debt repayment, bond issuance, and borrowing schedules for sovereigns and large banks and corporations helps assess potential vulnerabilities and refinancing risks associated with external debt obligations.
5. **For certain economies, additional indicators like commodity prices and growth prospects for the main trading partners may be necessary.** For commodity-exporting countries,

¹ IMF (2007) refers to the EMP index as a combination of movements in the exchange rate and international reserves. The index aims at assessing the impact of macroeconomic events and dynamics on the exchange rate, through both central bank's resistance to sharp exchange rate swings via FXIs, and market accommodation of the shocks via exchange rate movements.

relevant indicators provide insights into shifts in demand for exports. For countries reliant on remittances or overseas deposit inflows, economic growth indicators and host countries' diaspora interest rates may be useful.

6. In the context of LICs, where structural frictions such as shallow FX markets and capacity constraints are particularly binding, indicators beyond those typically used in AEs and EMEs are especially relevant. These include measures of local FX market depth, the existence of parallel exchange rate markets, central bank operational independence and transparency, and the strength of fiscal policy frameworks. Such indicators can help diagnose persistent vulnerabilities and guide ex-ante structural reforms aimed at enhancing policy effectiveness and coherence.

7. Large changes in these indicators may not necessarily signal non-fundamental shocks. They could stem from fundamental shocks or macroeconomic imbalances, especially shallow or temporarily illiquid capital markets. Additionally, during an oil price shock prompting a shift from local currency assets, exacerbating the impact of the fundamental shock (particularly with substantial financial dollarization and increased risk of FX mismatch), closely monitoring deposit flows between local and foreign currencies can be useful. Therefore, conducting a comprehensive review of macro-financial imbalances is essential for policymakers to understand the nature of the shocks and identify potential combinations of fundamental and non-fundamental shocks.

8. Country teams and authorities should seek to remedy data gaps and build reference series for the relevant premia, in the relevant FX and domestic markets. This can build on the IPF Metrics dataset and accompanying notes.

9. The agenda for IPF-related structural reforms may require different sets of indicators and capacity development efforts. Particularly for floats, the indicators in Unsal and others (2022) and the analysis in IMF (2015) may be useful to assess the development needs with respect to the monetary policy regime. The reform and capacity development agenda for fiscal frameworks is discussed in IMF (2023b). For management of the capital account, discusses the structural reform agenda, and provides associated indicators, for development of financial supervision and regulation, and particularly for the implementation of MPMs. The data needs described in this section imply a corresponding need for capacity development.

Indicators Related to FX Mismatches

10. Evaluating the risks from FX mismatches should begin by assessing unhedged FX exposures and their implications for financial stability. This assessment should encompass a range of indicators spanning financial (primarily banks), non-financial, and public sector. Monitoring central government external debt alongside guaranteed and non-guaranteed external SOE debt is essential.² Additionally, analyzing the sovereign-bank nexus can provide valuable insights—large holdings of

² External debt, as defined by the LIC-Debt Sustainability Framework (DSF) is classified by residency and implies that local currency denominated debt held by non-residents is part of the external debt. Monitoring planned issuances of FX-linked debt, issued by SOEs, in a forward-looking manner is important.

foreign currency-denominated government debt by banks may amplify the banking sector's vulnerability to the impact of currency depreciation. In LICs, where financial markets are often shallow and hedging instruments are limited or absent, it is reasonable to assume that most FX liabilities are unhedged. This further underscores the importance of comprehensive monitoring of FX exposures.

11. Efforts to gauge currency mismatches should ideally extend to the bank and firm level to capture nuanced vulnerabilities. Relying solely on aggregate statistics may obscure critical risks. By scrutinizing unhedged mismatches and exposures at the micro-level of banks and firms and ensuring robust data quality upheld by strong supervisory frameworks, a more accurate and timely identification of significant currency mismatches across the economy can be achieved.

12. In evaluating potential FX mismatches and their impact on the economy, indicators related to FX debt, assets, and liabilities are useful. A comprehensive set of indicators can evaluate mismatches, amplification channels, and the strength of macro-financial feedback from sharp depreciation. Key variables include FX debt stocks across sectors like households, non-financial corporates (NFCs), banks, non-bank financial institutions (NBFIs), and the public sector (inclusive of the central government and SOEs largely governed by the government). Understanding FX assets and liabilities by short-, medium-, and long- term maturities—data permitting, is essential, and monitoring the breakdown of FX debt stocks by maturity would be useful.³

13. Moreover, indicators from banking statistics can provide a window into both deposit dollarization and loan dollarization. This can be used as a starting point for further analysis of the potential for unhedged FX borrowing at the level of the non-financial corporate sector and differences across its subsectors, as well as unhedged borrowing in FX by households whose income is in local currency. Monitoring metrics that flow from loan level information can provide insights into the debt burden (DSTI and DTI ratios), and (underwriting) collateral risks (LTV ratios of household loans in foreign currency). Fiscal indicators, such as external debt service to revenue and short-term FX debt to reserves offer further clarity on foreign currency risks.

14. Assessing amplification risks involves considering several indicators, like banks' liquidity and capital ratios, non-resident deposits in commercial banks, and the share of non-residents in local currency debt markets. These metrics shed light on the vulnerability of the banking sector and local debt markets to FX-related shocks, with weaker bank balance sheets and high exposure to non-resident flows exacerbating downturns during episodes of currency depreciation.

15. Lastly, the strength of macro-financial feedback from sharp depreciation can be assessed by solvency and liquidity stress tests across sectors. Satellite models are instrumental in assessing individual or sectoral distress probabilities against exchange rate movements and other macro variables, aiding comprehensive risk assessment.

³ In addition to the focus on *stocks* of unhedged FX debt, considering the *flows* of unhedged FX payments is also useful. For example, it may become temporarily difficult for the debtor/government to service large interest payments in FX on existing debt if imports/exports fall short of producing the expected net FX inflows. In this regard, monitoring the stock of central bank reserves is crucial.

Indicators Related to Poorly Anchored Inflation Expectations

16. Assessing the impact of exchange rate fluctuations on inflation and inflation expectations is crucial. This involves analyzing the channels through which exchange rate changes affect prices and an estimation of their potential magnitude. Once shocks occur and exchange rates fluctuate, contemporaneous monitoring of relevant indicators becomes essential to measure the actual impact on inflation and inflation expectations. This includes assessing how the pass-through from exchange rate changes to domestic prices may strengthen beyond certain thresholds. Understanding the nonlinear relationship between exchange rates and inflation can provide valuable insights for policy formulation. Staff should also evaluate the appropriateness of monetary and fiscal policy responses to exchange rate movements and their consequent impact on inflation. Additionally, assessing the adequacy of FX reserves and evaluating the exchange rate's alignment with fundamentals, for e.g., EBA or EBA-lite methodologies, remains essential.

17. In LICs, obtaining reliable, long-duration, and high-frequency measures of inflation expectations such as Consensus Forecast data, poses challenges.⁴ Intermediate regimes face complexity in measuring inflation expectations without an inflation target as a nominal anchor. Absent common measures, staff, and authorities can use central bank surveys to gather inflation expectations from households and firms.⁵ Market-based measures like breakeven rates, derived from inflation-linked bonds or other financial instruments, serve as useful proxies for inflation expectations, though they may not be readily available for LICs due to market limitations. Adjusting for liquidity and risk premia can improve the accuracy of these measures. Where there are no direct measures, time series approaches can be employed to construct inflation forecasts as proxies for agents' expectations, using univariate or multivariate statistical methods. Additionally, a narrative approach involves examining news articles or official statements to understand economic agents' beliefs about inflation (Binder (2016)). Policymakers and staff should assess the strengths and weaknesses of each approach and use a combination of available data and methodologies to inform policy decisions effectively.

18. Assessing pass-throughs to inflation outcomes at longer horizons can also provide information on inflation de-anchoring. While pass-through to inflation at short horizons can indicate one-off effects, persistence of pass-through of changes in exchange rates into measures of inflation at longer horizons can indicate second-round effects (IMF 2023a). This can be estimated through regressions analyzing the relationship between exchange rate changes and headline inflation at various horizons, controlling for other variables. Caution should be exercised in interpretation, as the inflation-exchange rate relationship can vary based on shock type, exchange rate regime, and regime credibility, which may change over time.

19. Estimating the exchange rate pass-through can be complemented by additional measures like structural VARs (that address simultaneity issues), consideration of distribution costs on prices, and the share of imported goods in production and consumption (Campa and Goldberg (2008)). When pass-through is significant, assessing shock persistence and potential

⁴ For LICs, Consensus Forecast inflation expectation data is available for four countries only.

⁵ LICs with relevant surveys include several with de facto crawl-like arrangements, and countries with conventional pegs and other exchange rate management types.

second-round effects such as wage-inflation spirals is crucial. Monitoring inflation-indexed or negotiated wages provides insights into wage-driven inflation risks. Additionally, monitoring currency invoicing, export/import elasticity, and parallel exchange rates fluctuations is vital, signaling expectations about exchange rate depreciation, inflation, and institutional trust. These indicators are essential for understanding the amplifying effect of parallel currencies and trust in monetary/fiscal institutions.

20. Exchange-rate pass-through depends on the (likely) evolving monetary policy regime and other country-specific characteristics. Caution is warranted when interpreting empirical estimates of pass-through in LICs.