Sovereign Debt Sustainability with Domestic Debt Markets

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Table of Contents

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Executive Summary

This paper summarizes the implications of increased domestic debt use by sovereign borrowers for sovereign debt sustainability. It also reviews whether the sovereign debt sustainability analysis employed by the International Monetary Fund remains suitable for this new scenario.

Using domestic debt, which is debt obtained from resident creditors and/or denominated in local currency, has implications for macroeconomic policy-making.

- The ways in which risks and macroeconomic policies influence an economy depend on the extent to which sovereign borrowing comes from local creditors and whether it is denominated in the local currency. This makes public debt management more complex.
- The use of domestic debt carries significant implications for managing sovereign default. Domestic and external defaults impact the economy through distinct channels and require different financial and legal strategies for resolution.

These various effects are evident in sovereign default patterns: governments tend to default selectively, either externally or domestically, and especially when debt is held domestically, they aim to minimize the amount of restructured debt and avoid principal haircuts.

Given the growing role of domestic debt among LIC governments, this paper questions whether these differences are adequately reflected in the IMF's debt sustainability analysis framework for LICs (LIC DSF). The paper's answer is that the current framework looks too much like earlier versions: it focuses on external debt and gives domestic debt a role close to residual.

This subsidiary role of domestic debt translates into inaccurate macroeconomic projections and a weak ability of the LIC DSF to support policymaking. The paper argues that without better integration of the domestic and external financing mix into the existing analytical framework, IMF DSAs will offer an increasingly inadequate platform for designing the resolution of sovereign debt crises.

The LIC DSF framework would benefit from developing macroeconomic scenarios and realism checks, determining debt-carrying capacity, and setting risk thresholds that robustly and systematically account for the external/domestic sovereign financing mix. In addition, LIC DSF should establish domestic-debt-specific risk thresholds to enable a systematic, standardized assessment of domestic-debt vulnerabilities.

A more modern understanding of the role of domestic debt markets and resident creditors should also inform any future reform of the G20's Common Framework. For the Common Framework to offer a comprehensive and lasting solution to sovereign debt crises, the approach applied needs to internalize the role of domestic wealth accumulation in supporting stable long-run growth. To facilitate development, the attention currently paid to the impact of domestic sovereign default on financial stability should extend to other local creditors.

Introduction

Sovereign debt issued in local currency is often praised for mitigating currency risks borne by developing countries. But domestic sovereign bond markets are about much more than shielding countries from currency risk. They are key to well-functioning private capital markets, which not only bolster public and private investment but can also help make financial and monetary policies more effective. This is why, since the early 2000s, the International Monetary Fund and the World Bank have supported the development of local bond markets, helping mobilize domestic savings while broadening the investor base for sovereign debt.

The recent global tightening cycle underscores that the costs of lacking developed local-currency bond markets are high. The ability of large emerging market economies to rely on well-established local-currency bond markets significantly mitigated the impact of the 2022-23 tightening cycle. Sovereign bond markets remained stable, and default risk stayed at bay.

Yet domestic debt is not risk-free. It adds complexity to debt management. Without sufficiently developed markets, domestic debt can be more expensive and have shorter maturities. Furthermore, because domestic debt is often held by domestic banks, it can reduce private-sector lending or, worse, trigger sovereign-bank doom loops. When held by non-resident investors, domestic debt can attract hot money flows that can destabilize foreign exchange reserves management. Additionally, an increased share of domestic sovereign debt creates new difficulties for sovereign borrowers in distress. Indeed, mirroring the growing role of domestic debt as a source of sovereign financing, sovereign defaults on domestic debt were rare until the 2000s but are now as frequent as external sovereign defaults.

Against this backdrop, this paper reviews the macroeconomic and policymaking implications of sovereigns' increased reliance on domestic debt markets, populated by both domestic and foreign investors, and questions whether the International Monetary Fund's debt sustainability analysis framework adequately accounts for the growing role of domestic debt.

The paper argues that the IMF's debt sustainability analysis (DSA) frameworks fail to robustly account for the role of domestic debt, particularly the sovereign debt management strategy (SDMS). The LIC DSF looks too much like its grandparents: it uses present-value debt, focuses heavily on countries' dependence on external savings, and assigns domestic debt a subsidiary role. Given the Fund's role in resolving balance-of-payments disruptions, targeting countries' externally held debt is natural. Yet when it comes to the roles of domestic debt and domestic private savings in sovereign debt sustainability, the LIC DSF analytical framework underplays their importance.

This paper proposes three ways to improve the fit of domestic debt within the LIC DSF framework:

1. LIC DSF would benefit from a systematic (and robust) approach to embedding the SDMS within the macroeconomic framework. This would help reduce systematic projection errors related to debt management. These projection errors could also be limited if the IMF made more use of debt-management-related conditionality.
2. LIC DSF should model debt-carrying capacity and set risk thresholds in a way that robustly accounts for the SDMS. In particular, the framework needs to acknowledge that countries that rely more heavily on domestic debt can carry larger total public debt.

3. Given that domestic sovereign defaults are now as frequent as external ones, the LIC DSF should include specific risk thresholds for domestic debt, enabling a systematic and standardized assessment of domestic debt.

The lack of a systematic role for domestic debt is even more pronounced within the G20's Common Framework (CF). The subsidiary role of domestic debt (and domestic wealth) makes both debt crisis resolution and sustainable development harder to achieve. To support long-term growth and a lasting solution to debt crises, the CF should expand the debt perimeter it addresses to include domestic debt, in a way that recognizes that domestic debt sustainability is paramount to both economic development and external sustainability (see also Grigorian 2020).

The rest of this paper is organized as follows. It begins with a brief discussion of key facts and trends regarding domestic sovereign borrowing and default. It then presents the main advantages and risks of borrowing and defaulting on domestic debt, enabling a discussion of the factors that drive a sovereign's decision to default domestically or externally. Next, the paper critically reviews the role of domestic debt within the LIC DSF framework. The paper closes with a set of recommendations.

1. Domestic sovereign debt: key facts

Traditionally, domestic debt markets for non-advanced sovereigns were either non-existent or closed to foreign investors. Emerging and less developed countries could borrow only from foreign investors in foreign currencies and in international markets. Reflecting these experiences, Eichengreen and Hausmann (1999) coined the term "original sin" to describe a country's inability to borrow from abroad in its own currency.

Given the role of "original sin" in the debt crises of the 80s and 90s, the IMF and the World Bank have been tasked by the G20 since the early 2000s with promoting domestic bond markets and fostering greater foreign participation in them. As a result, public debt issued domestically, denominated in local currencies and held by both locals and foreigners, now represents a major source of financing for both emerging and less developed sovereigns.

2.1. Domestic sovereign financing

Despite the growing importance of domestic debt markets, the very definition of what constitutes domestic debt remains elusive. Some focus on the currency of denomination of sovereign debt. Others focus on whether creditors are residents or foreigners. Finally, some focus on whether the debt was issued in a market governed by foreign or local laws. Unfortunately, there is no unified database that enables a coherent understanding of domestic debt across the currency, residence, and market dimensions.[1] This section relies on analysis of local-currency debt offered by the OECD (OECD 2025) and on analysis of resident-held debt offered by the IMF and the World Bank (IMF 2021, 2025a, World Bank 2024).

Looking at the currency dimension, OECD (2025) reports that sovereign bond markets in emerging and less developed economies have grown substantially over the past two decades. Outstanding

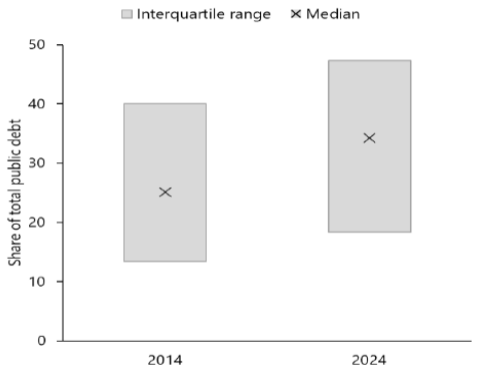
[1] Annex I and Annex II offer an overview of sources of data for domestic sovereign debt.

sovereign bonds approached USD 12 trillion in 2024, up from USD 4 trillion in 2007 (OECD 2025). Of this total, local-currency bonds accounted for nearly 90% of outstanding debt as of Q1 2024.[2] By 2017, driven by foreign inflows into domestic bond markets, 23% of external debt was in local currency (LC). Onen et al. report that much of the shift toward LC bonds occurred between 2009 and 2012, fueled by the search for yield.[3]

OECD (2025) reports that local-currency borrowing costs have increased since 2022, with the greatest impact on low-income countries and those with a credit rating of single B or lower. In EMDEs, excluding China, real yields at issuance rose from negative levels to nearly 4% between 2020 and 2024. In low-income countries, they climbed from 4% to over 7%. The shorter average maturity of their debt makes **the outstanding stock more sensitive to rate changes.**[4]

According to IMF (2021), the share of domestic debt in total debt for emerging and developing economies rose from 31% in 2000 to 46% in 2020 (37% for LICs). In turn, IMF (2025a) reports that sovereign domestic debt accounted for three-quarters of total debt in emerging market economies at the end of 2024. The corresponding figure for LICs was 35% of total debt (Figure 1). According to IMF (2025a), over the period 2014-2024, LICs' public domestic debt-to-GDP ratio doubled from 8 percent of GDP to over 17 percent of GDP, with half of the increase occurring prior to COVID (12 percent by 2019).[5]

Figure 1. Share of total public debt in LICs



Source: IMF (2025a)

The pandemic forced LIC governments to increase their reliance on domestic debt. By 2024, 21 percent of countries had public domestic debt exceeding half of total public debt, and 80 percent of LICs issued domestic debt through local markets.[6] Reflecting the growing role of local debt markets, marketable debt accounted for more than half of all domestic debt issuance. Yet a substantial share of

[2] By late 2022, the stock of domestic bonds issued by developing economies reporting data to the BIS (excluding China) reached reached 7.2 trillion USD, five times more than international securities.
[3] Bénétrix et al (2019) documents the growing role played by foreign creditors in LC debt markets in 27 EMEs. In 1990, only 10% of external debt was denominated in local currency. Today there are sizable non-resident positions in many local bond markets, such as in Ghana or Zambia.
[4] When accounting for depreciation, the total cost of FC debt often exceeds that of LC debt.
[5] IMF (2025a) uses the LIC DSF database, which defines domestic debt as loans from banks authorized to operate in the jurisdiction, arrears to domestically-registered suppliers and marketable securities issued in the domestic or regional market held by residents of the domestic or regional market. LIC DSF data covers 69 countries. Data on public domestic debt composition covers 60 out of the 69 countries.
[6] The growing development of local bond markets is evidenced by the fact that frontier LICs, such as Ghana, have been able to issue local currency bonds with maturities around the 15-year mark.

domestic debt remains non-marketable. Local banks have played a key role in this development. According to the World Bank (2024), between 2012 and 2023, domestic banks' exposure to sovereign debt rose by one-third (even more in countries in public debt distress). Yet traditional bank lending and Central Bank financing account for 25% of domestic debt. Domestic arrears represent almost one-fifth of all domestic public debt.

Along with debt stocks, debt service on domestic public debt has also increased rapidly over the last decade. Domestic public debt service reached almost 5% of GDP in 2024 (IMF 2025a). The median domestic debt service-to-revenues ratio has jumped from 3 percent in 2014 to 19 percent in 2024. This increase in debt service pressures partly reflects the fact that domestic borrowing costs are generally higher than for external borrowing. Nominal rates on domestic debt are high. In 2024, the median domestic interest rate in LICs was 5%, but in some countries, it was as high as 25%. Still, due to high inflation, nearly half of LICs recorded negative real domestic interest rates in 2024. In some cases, persistently negative real rates reflect financial repression.

Additionally, the short maturities of domestic debt have put upward pressure on gross financing needs. IMF (2025a) notes that in a subset of countries, domestic short-term debt averages 12 percent of GDP (almost half of domestic debt).[7]

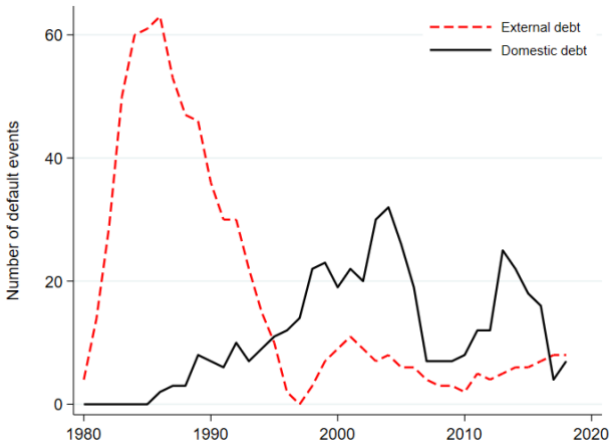
These price and maturity characteristics of public domestic debt in LICs indicate that, despite their rapid growth, domestic public bond markets remain underdeveloped.[8] This underdevelopment is also reflected in the fact that transparency and misreporting problems related to domestic debt are more significant and pervasive for LICs (IMF 2025a).

2.2. Domestic sovereign default

As with debt data, there is no unified database of episodes of sovereign default with private creditors. Yet various records show that sovereign domestic defaults are far from anecdotal. For the period 1980-2019: (i) IMF (2021) reports 60 sovereign defaults involving residents and 121 involving foreigners; (ii) Erce et al. (2024) report 67 defaults on debt issued domestically and 101 on debt issued externally; and (iii) Beers and Leon-Manlagnit (2019) report 60 local-currency and 142 foreign-currency defaults. Figure 1 plots sovereign defaults between 1980 and 2020. Similar to the growing role of domestic debt in regular sovereign financing, sovereign domestic defaults are now as frequent as external ones.[9]

[7] The median maturity on new long-term domestic debt issuances was 4.5 years in 2024 (OECD 2025).
[8] In 2024, domestic gross issuance by LICs was less than half that of emerging countries (OECD 2025).
[9] This section relies on the analysis in Erce and others (2024).

Figure 1. Sovereign defaults on external and domestic debt



Source: Erce and others (2024)

Four key parameters can be used to describe how external and domestic defaults have played out in practice: size, comprehensiveness, duration of the restructuring process, and investor losses.

- Domestic debt restructuring involves smaller amounts of debt relative to GDP (12% on average) than external debt (22% on average).

- Domestic debt restructuring is more surgical. While external defaults involve, on average, 70% of total public external debt, domestic defaults involve barely a quarter of existing debt.

- Domestic defaults are resolved, on average, in 40 months. In contrast, it takes more than 70 months to resolve an external default.

- The above-mentioned differences don't translate into significant differences in investor losses. Losses amount to 43% in net-present value terms for external defaults and to 39% for domestic defaults.[10]

The historical record also shows that domestic restructuring is often executed by extending maturities and reducing coupons (9 out of 10 domestic restructurings feature maturity and coupon changes). In contrast, the practice of applying a principal haircut, which often accompanies external defaults (around half of episodes since 1999), is seldom applied to domestic restructuring (around 20% of domestic defaults featured principal haircuts as part of the restructuring agreement). Principal haircuts are more commonly used in external debt restructuring. One in three external defaults includes a principal haircut in its resolution.[11]

More recently, IMF (2025b) offers an overview of post-COVID sovereign default episodes. Since 2020, 11 countries have completed debt restructuring deals with external and domestic private

[10] IMF (2021) reports slightly smaller NPVs for residents than for foreigners.
[11] IMF (2021) reports that domestic defaults are more likely to be pre-emptive and avoid arrears.

creditors. Four of those (Ghana, Sri Lanka, the Republic of Congo, and Suriname) restructured both external and domestic debt.[12] Four countries (Belize, the Republic of Congo, Chad, Ukraine, and Zambia) restructured only their external debt.[13] Finally, three countries (Argentina, Gabon, and El Salvador) restructured only their domestic debt.[14]

According to IMF (2025b), despite these recent defaults being more complex and taking longer than earlier experiences, they also delivered substantial debt relief. IMF (2025b) also notes that all external bond restructurings during this period featured face value reductions and that creditor litigation did not impede the restructuring operations.

3. Macroeconomic management with domestic public debt

This section reviews the macroeconomic implications of governments borrowing and defaulting domestically. It also discusses the key drivers of the decision to restructure sovereign domestic debt, with a focus on the rules governing access to IMF crisis financing, the last line of defence against sovereign default.

3.1. The macroeconomics of domestic sovereign borrowing

Residence metrics for sovereign debt matter because they reflect the allocation of investments and savings. Currency metrics matter because they tilt the balance of risks. Both metrics carry implications for the conduct of macroeconomic policies.

Domestic debt presents both advantages and challenges for macroeconomic management (IMF 2021, United Nations 2024, OECD 2025). A large body of evidence shows that developing a country's financial sector is a prerequisite for economic progress. Domestic bond markets, where financing is obtained in local currency, and residents can allocate their wealth, promote financial stability by creating a benchmark (market-determined) yield curve that reflects borrowing costs in local currency across maturities. In economies lacking well-functioning local debt markets, creditors find it difficult to price and provide long-term lending. This prevents the stable accumulation of domestic savings, hindering faster development.

Foreign-currency (FC) borrowing, by appealing to a broader creditor base, enables public borrowing beyond what would be feasible with local-currency (LC) borrowing. Yet FC borrowing exposes countries to exchange-rate risk.[15] This risk is compounded by the potential for sudden reversals of

[12] The external restructurings covered both international bonds and commercial loans (with bonds faster to complete). The restructurings of domestic debt covered both bonds issued under domestic law and loans (fastest to complete). In Suriname, domestic debt restructuring regarded debt arrears.
[13] Zambia restructured international bonds and loans. Belize and Ukraine restructured only international bonds. Chad and The Republic of Congo restructured external loans with commodity traders.
[14] In 2023, Salvador completed a debt exchange with private pension funds. Between 2022 and 2024, Argentina conducted three peso-debt exchanges. In 2025, Gabon completed a LC debt exchange. The three episodes were considered a distressed event by at least one major rating company.
[15] FC borrowing creates a mismatch between local currency-denominated assets and foreign currency-denominated liabilities increasing the risk of sovereign default (CGFS 2007, OECD 2025).

foreign capital (perhaps driven by increases in international interest rates), which can cause currency depreciation, increase debt-servicing costs, and compound rollover risks.[16]

In contrast, LC debt is shielded from exchange rate volatility and currency mismatches. Yet reducing the currency mismatch on the borrower side shifts the risk to the balance sheets of foreign investors, making them less willing to hold the debt in situations of increased uncertainty.[17] Thus, while LC borrowing reduces exchange rate risk, it also makes foreign creditors' exposure less reliable: flows into LC bonds are more volatile than flows into FC bonds.[18] Attracting hot money flows can destabilize the financial accounts and the management of foreign exchange reserves. Moreover, in downturns, when capital flows reverse, foreign bond holdings need to be absorbed by domestic investors.

Another important implication of using domestic debt is that it places different constraints on the use of monetary policy as a stabilization tool. While monetary policy transmission can be stronger with domestically held debt, the use of local currency can also complicate the management of inflation. Relatedly, to the extent that the use of LC debt implies that residents become more relevant creditors, the resulting balance-sheet linkage has implications for financial stability. The public sector is the ultimate backstop of the financial sector and often owns some banks. In turn, banks purchase government bonds, helping the government cover its financing needs.[19] The use of regulatory policies to incentivize domestic banks to absorb public debt at below-market rates temporarily reduces pressure. Yet it may trigger resource misallocation (public debt crowds out private credit) and enable doom loops. [20]

Fiscal policy itself is affected by the use of domestic debt. First, to the extent that substituting foreign for domestic savings affects borrowing costs, it will affect deficits and lower aggregate demand. Second, fiscal multipliers in the short run depend on the composition of the investor base (Broner et al. 2022). Fiscal expansion financed with savings from abroad has much larger fiscal multipliers than those financed domestically. Domestic sovereign borrowing crowds out private investment, reducing output growth. Moreover, when fiscal risks mount, domestic non-financial creditors often (unwillingly) become a source of financing as governments accumulate payment arrears against them. While this helps cover short-term borrowing needs, it hinders economic production and delays economic recovery through multiple channels.[21]

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[16] FC domestically-held debt merits specific consideration because it exemplifies how currency denomination and creditor residence speak through different mechanisms to the need for reserves. If sovereigns use domestic markets to borrow in a foreign currency from residents, the amount of foreign exchange privately available within the country will shrink, putting pressure on the exchange rate.

[17] At the onset of the pandemic, LICs with significant amounts of LC debt saw deep depreciations as foreign creditors retrenched. Yet, the LC denomination prevented the depreciation from increasing the debt.

[18] Fang et al (2022) find that holdings by non-banks are most sensitive to yield changes. Onen et al. (2023) report that during the pandemic, facing step valuation losses, foreign investors sold more LC bonds than FC bonds, triggering foreign retrenchment from LC bonds. Shin and others argue that dollar appreciation amplifies the sell-off in LC bonds, but not in FC ones. According to HK Monetary Authority (2020), the rapid flight of foreigners from LC bonds reflected anticipation of FX-related losses.

[19] Before their debt restructurings, domestic debt in Ghana and Sri Lanka accounted for over half of total sovereign debt, with shortening maturities, and the sovereign bank nexus tightened.

[20] A 5% loss on public debt holdings would undercapitalize 20% of banks in LICs (World Bank 2024).

[21] Domestic arrears hurt private sector profitability, generate banking sector stress and, by undermining trust in government, reduce fiscal policy effectiveness (IMF 2014).

Last but not least, the lack of development of domestic debt markets can complicate public debt management (PDM) by increasing borrowing costs and, through shorter maturities, roll-over risks. Additionally, market underdevelopment creates gaps and a lack of transparency in domestic debt data, leading to an underestimation of true debt levels (OECD 2025). Thus, in parallel with promoting bond market development and PDM systems (Box 1), managing the domestic market may require using financial repression techniques (Reinhart and Sbrancia 2015).

Box 1. Public debt management

Improving public debt management (PDM) capacity in LICs is often closely linked to the development of domestic debt markets. PDM is the process of establishing and executing a strategy to manage the government's debt and raise the required funding at the lowest possible cost over the medium- to long-run, consistent with a prudent level of risk.

Types of risks that PDM needs to consider include rollover, funding, interest rate, exchange rate, counterparty, and legal. LICs are also more susceptible to the buildup of contractual arrears (especially in cash-based accounting systems).

Effectively managing public debt portfolios requires a debt management office (DMO) capable of setting and implementing a medium-term debt strategy. For this, the DMO needs well-trained staff and integrated IT frameworks to accurately record, monitor, and report debt instruments. It also requires systems that analyze and identify risks.

Because DMOs are intricately linked to a wide range of entities within and outside the public sector, effective PDM also requires close coordination among public-sector entities, with clearly defined responsibilities backed by well-designed legal frameworks.

3.2. The macroeconomics of domestic sovereign default

When a government faces the need to carry out a sovereign debt restructuring, it needs to carefully consider how different restructuring approaches can affect the economy. The literature identifies a range of default-related costs, including loss of access to capital markets and to international trade (trade credit may become scarcer and more expensive to obtain), spillovers to the domestic economy through the impact of default on residents' balance sheets, and litigation-related costs.

The effect on output of an external default can top 20 percent of GDP. According to IMF (2021), the magnitude is smaller for domestic defaults and largest for comprehensive restructurings. Erce et al. (2024) report similar output drops in domestic and external defaults.

The macro-financial forces at play during domestic and external defaults are different: a domestic credit channel is at play during domestic defaults, while an external adjustment channel is active during external defaults (Erce and Mallucci 2018, IMF 2021).

- External defaults precipitate capital flight, a correction in the exchange rate, and an increase in net exports, all of which are more muted during domestic default (Erce et al. 2024). Capital flight can be particularly intense during periods of global turmoil (IMF 2021). Arslanalp and

Sunder-Plassmann (2022) document that sovereign debt shifts from external private investors to domestic investors prior to external defaults.

- Regaining market access depends on the characteristics of the restructuring process: defaults that impose larger haircuts, trigger longer periods of market exclusion, and lead to market re-access at higher rates (Cruces and Trebesch 2013). Domestic debt restructuring has a lesser impact on market access, although, as the current situation in Ghana shows, it can also have a lasting effect.
- Because domestic sovereign debt markets are the backbone of domestic financial systems, defaulting on domestic debt may affect the financial health of the private sector more than an external default. Restructuring domestic sovereign debt impacts the balance sheets of domestic creditors (a loss of domestic wealth), triggering credit and investment crunches.[22]
- Banking crises are likely after a sovereign default. When the default includes local debt, the probability of a subsequent bank crisis is significantly higher. This is especially true for more comprehensive domestic debt restructuring operations and for debt restructurings that imply the accumulation of arrears (post-default).
- Domestic arrears to non-financial resident creditors are difficult to avoid and track, yet they often have a devastating effect on development outcomes (IMF 2014, Erce 2021, Gill and Pinto 2023).

Litigation is likely in the event of a sovereign default, both domestically and externally. Indeed, debt restructurings are often delayed by litigation, increasing the costs of default. Yet legal action is more likely to be disruptive during external debt restructurings, given that creditors holding internationally issued debt can resort to legal jurisdictions other than the domestic one.

Inequality and development indicators are also critically affected by the restructuring approach. External debt restructuring with principal reductions and domestic debt operations that avoid using public pension and social security systems to extract debt relief are more likely to avoid increasing inequality and reducing social spending, thereby mitigating the negative impact on long-run growth prospects (IEO 2021, Erce 2021, Hakim and Yoon 2026).

3.3. Reasons to treat domestic and external debt differently

Sovereigns in default discriminate across debt instruments. Since 1980, a majority of sovereign defaults have involved either foreign or domestic debt selectively. A majority of selective domestic defaults have occurred in LICs. Among non-selective defaults, governments have at times acted sequentially. Of the 19 comprehensive defaults reported in Erce and others (2024), 11 featured simultaneous default on both domestic and external debt, 5 featured an external default first, and in just 3 cases the sovereign started by defaulting on its domestic debt. In contrast, the evidence in IMF (2025b) shows a tendency to restructure domestic debt first.

[22] Any debt restructuring must consider its impact on the central bank, which needs to continue to perform its policy functions in spite of the debt restructuring. Losses on the central bank balance sheet that may result from a domestic default have to be addressed, including through recapitalization (IMF 2021).

What explains the use of different strategies to restructure domestic or external debt? There are various macro-financial and institutional features that contribute to shaping a sovereign strategy vis-à-vis domestic and foreign debt (see also IMF 2021 or Grigorian 2021):

The origin of the liquidity pressures. If struggling primarily to refinance domestic debt, the government may opt to restructure only domestically (Erce and others 2024).[23] This hypothesis needs qualification. The currency denomination of domestic debt and the degree of Central Bank independence play a key role. If a substantial share of public debt is denominated in local currency and the central bank lacks independence, the government may resort to seigniorage and inflation without explicitly restructuring. IMF (2021) reports that the pre-restructuring median share of domestic debt in total public debt was notably higher for domestic defaults (37 percent) than for external ones (27 percent), suggesting that a larger stock of domestic debt makes inclusion in a restructuring more likely.[24]

Strength and relevance of the domestic financial sector. Countries with stronger banks and less reliance on bank credit intermediation (more informal economies) are more likely to use domestic debt to resolve sovereign default (Erce and Mallucci 2018). The financial sector's health is key to any form of involvement. When banks are seen as solid, their involvement occurs early on – to absorb more debt the government wants to issue and/or take a loss on government debt it already holds. If, instead, the banking sector is weak (maybe even the origin of the ongoing distress), the authorities often try to limit domestic banks' involvement in the restructuring.[25]

Dependence on foreign financing. If maintaining access to external finance is deemed important for the functioning of the corporate sector, the government may decide to extract debt relief from its domestic debt. Such a strategic stance would be adopted in the hope of preserving the private sector's access to international markets, thereby reducing the impact of the crisis on the economy.

Signaling effects. Countries that want to signal a cooperative disposition toward creditors are more likely to involve all types of creditors in debt restructuring. Alternatively, if the sovereign remains current on its external obligations, it might retain access to international financial markets. Yet investors' belief that authorities will do whatever is required to stay current on external obligations can trigger a long-lasting loss of market access in the domestic market.

Legal certainty. A key determinant of the strategy followed is the different ability to restructure debt issued domestically and externally. The powers stemming from control of governing law and jurisdiction weaken creditors' position to the benefit of the sovereign, making litigation more disruptive when restructuring internationally issued debt. Given the sovereign's prerogative to change

[23] Anecdotic historical evidence shows interesting patterns (Ramos 1994, Reinhart and Rogoff 2008, Erce 2014). Prior to defaulting externally, residents are often coerced into the accumulation of domestic debt or increased delays in repayment. However, once the sovereign is forced to restructure external debt, it is likely to bear a significant burden of the restructuring, even when domestic debt is included.

[24] If the economy is highly dollarized, the sovereign can coerce residents to absorb FC debt. Where there are few dollars in circulation domestically, soaking liquidity from residents may trigger a currency crisis.

[25] Stress testing of the financial sector in the recent default in Zambia indicated that domestic debt restructuring could be destabilizing. This shifted the focus to non-resident investors which would not have had financial stability implications, but separating non-resident investors from the rest of the investor base proved difficult. The two recent domestic debt restructurings in Ghana and Sri Lanka were concluded prior to reaching agreements with external creditors. Financial stability risks were mitigated during the debt restructuring processes with the help of an enhanced financial safety net and regulatory flexibility.

domestic law (often termed the "local-law advantage"), creditor litigation can be less of an issue during domestic default. This offers sovereigns a reason to prefer addressing a debt crisis by restructuring domestic debt rather than debt governed by a foreign court. In contrast, external debt restructurings are often delayed by litigation, making the costs of default larger.

From this, one should not infer that domestic debt is simpler to restructure. That would disregard the fact that domestic debt is more heterogeneous than external debt. To illustrate this point, Table 1 compiles datasets on sovereign defaults by currency (Beers and Leon-Manlagnit 2019), by the residence of the creditors (IMF 2021), and by market (Erce and others 2021). While external debt restructurings tend to involve debt instruments issued in foreign debt markets, denominated in foreign currency, and held by foreign investors, domestic debt restructuring often involves instruments denominated in both local and foreign currencies, held by residents and by foreigners domestically. This heterogeneity makes the restructuring exercise much more difficult to design and helps explain why domestic debt restructurings are less comprehensive than external ones.

Table 1. Overlap between currency, residence and market during sovereign default

		Market		Currency		Residence	
		Domestic	External	Domestic	External	Domestic	External
Market	Domestic	67		19	43	34	33
	External		101	11	98	22	92
Currency	Domestic			40		21	20
	External				142	33	105
Residence	Domestic					60	
	External						121

Source: Beers and Leon-Manlagnit (2019), (IMF 2021), and Erce and others (2021).

Ability to impose capital controls. Financial repression and capital controls on outflows could, in principle, be used to limit the impact of a run on the domestic bond market if a country decides that a domestic debt restructuring is the appropriate course.[26] Unfortunately, while the IMF's Institutional View on the Liberalization and Management of Capital Flows has explicitly endorsed the use of capital controls during surges in foreign inflows or when stock vulnerabilities exist, efforts to consider outflow-related measures have been absent (Chang et al. 2024). Thus, capital controls on outflows might be easily imposed, but they face uncertain approval from the IMF.[27]

Access to IMF loans. Although the decision to restructure public debt rests with the sovereign, IMF lending is often the only way out of a debt crisis. Therefore, a government seeking access to IMF resources may conclude that taking credible action to restore debt sustainability and unlock access to Fund resources is the appropriate policy (IEO 2021). Indeed, as summarized in Box 2 below, various IMF rules, policies, and procedures have implications for whether sovereign debt, domestic and/or external, needs to be restructured.

[26] Saborowski et al. (2014) find that outflow controls are effective if is supported by strong fundamentals and good institutions. If these conditions are not met, outflow controls can provoke a decline in inflows.
[27] During its recent default, instead of preventing the exit of foreign investors through controls on outflows, Zambia imposed controls on capital inflows that targeted foreigners' access primary market. The objective was to avoid that through such purchases Zambia's external debt breached the DSA thresholds.

Box 2. IMF rules and domestic debt

Debt sustainability is a prerequisite for IMF lending. Under its Articles of Agreement, the IMF cannot lend to countries with unsustainable public debt. To assess debt sustainability, the IMF uses debt sustainability analysis (DSA). The DSA helps determine whether debt distress can be resolved through adjustment and Fund support or whether debt restructuring is also needed to achieve "medium-term sustainability" (IMF, 2021). The IMF has two distinct DSA tools, one for GRA countries, the Sovereign Risk and Debt Sustainability Framework (SRDSF), and another for LIC countries, the Debt Sustainability Framework (LIC DSF). We explore the IMF's DSA for LIC countries in detail in the next section.

Debt Limits Policy. The IMF's Debt Limits Policy (DLP) is the Fund's core framework for public debt conditionality in Fund-supported programs. The LIC DSF rating determines debt conditionality. Low-risk countries are not subject to debt limits. Moderate-risk countries face PV-based performance criteria covering all external (concessional and non-concessional) and domestic borrowing. High-risk countries face a non-concessional borrowing limit. DLP includes domestic debt, but its focus is on external debt.

Exceptional Access Policy. The Exceptional Access Policy (EAP) guides lending when quota-based access limits are insufficient. The EAP contains four criteria, two of which make public debt dynamics and market access key determinants of whether the IMF can grant exceptional access without a debt restructuring (Erce 2024). For GRA countries, these are the debt sustainability criterion (EA1) and the market access criterion (EA2). EA1 makes access conditional on the likelihood of public debt sustainability. EA2 assesses whether the sovereign will have sufficient access to private market financing to repay the IMF. The EAP raises hard technical questions: what is market access? what is sufficient restructurable debt? While answering them requires attention to domestic debt, the EAP remains silent on how to distinguish measures of restructurable debt and market access in domestic and international markets.

EAP under PRGT is subject to similar procedural safeguards. As with EA 1, access would not be available to countries at high risk of debt distress or in debt distress unless expected debt relief is set to reduce the risk of distress to a moderate level. A LIC DSF-based assessment must demonstrate a stronger ability to repay the Fund than for a majority of LICs. PRGT EAP is also subject to a market access criterion (EA2), with market access evaluated using two tests: an issuance test and a "could have tapped" test. Both tests focus solely on external debt.

Lending into Arrears Policies. IMF policies require that external payment arrears be addressed under an IMF-supported program. During the 1990s, the Fund relaxed its earlier policy of non-toleration of arrears to external private creditors and developed the lending into arrears (LIA) policy. LIA enables IMF lending to a sovereign in default, provided that the sovereign is making good-faith efforts to negotiate a debt restructuring with its creditors. In contrast, the LIA policy takes no position on domestic arrears.

In practice, conditions on clearing domestic arrears are not systematic and, when imposed, are often not met (Erce 2021). If anything, domestic arrears are used to obtain additional financing within the fiscal limits imposed by the IMF (Ramos 1998). This gives external creditors leverage over domestic ones and provides sovereigns with incentives to remain current on external obligations while accumulating payment delays with non-financial resident creditors (IEO 2021).

Financing Assurances Policies. Under the financing assurances policy, the IMF must ensure that the program is adequately financed. The policy requires credible guarantees from creditors that the country's external financing gap during the program will be fully covered. A program relies on assurances related to private creditors only when the LIA policy applies or when a country is conducting a pre-default debt restructuring.

Program conditionality. IMF programs exchange concessional financing for a set of policy reforms conducive to sustainability. These reforms are hardwired into the program as conditionality. While reforms focused on deepening debt markets and improving PDM are key to enabling countries to meet their medium-term financing strategies, public debt management structural conditionality is seldom and unevenly used in LICs.

4. IMF Debt Sustainability Framework: The role of domestic debt

According to the IMF, *"In general terms, public debt can be regarded as sustainable when the primary balance needed to at least stabilize debt under both the baseline and realistic shock scenarios is economically and politically feasible, such that the level of debt is consistent with an acceptably low rollover risk and with preserving potential growth at a satisfactory level".*

To determine whether debt is sustainable, the IMF uses its debt sustainability analysis (DSA) frameworks. The IMF has two distinct DSA tools, one for GRA (market-access) countries, the Sovereign Risk and Debt Sustainability Framework (MAC SRDSF), and another for PRGT (LIC countries), the Debt Sustainability Framework (LIC DSF). Both frameworks rely on a macro framework underpinned by realism checks and a set of rules and thresholds for selected debt and debt service indicators, all of which are affected by the extent to which sovereign debt is domestic or external.

This section introduces the LIC DSF and critically reviews the role of domestic debt within the framework. Appendix III provides a brief summary and evaluation of the IMF's MAC SRDSF.

4.1. Overview of the LIC DSF framework

As stated by the IMF, the goal of the LIC DSF is *"to guide borrowing decisions of low-income countries in a way that matches their need for funds with their current and prospective ability to service debt, tailored to their specific circumstances."*

The LIC DSF was designed when domestic public borrowing was residual and public external debt in LICs was mostly official concessional debt. Motivated by the long maturity and concessional cost of

LICs' external official debt, the LIC-DSF was designed to measure debt stocks on a present-value basis.[28] To accommodate a financing landscape in which market debt from domestic sources played a larger role, the LIC DSF underwent reforms, yet the use of present-value discounting remained in place (see also Gill and Pinto 2023).

LIC DSF measures public sector debt using its broadest definition. This allows the inclusion of state-owned enterprises and lower levels of government in the analysis, which are often a source of negative debt developments (IMF 2025a). In principle, the DSF should define domestic debt based on the creditor's residency. Therefore, domestic debt should not include LC-denominated debt owed to non-residents (that is, external debt for the LIC DSF). In practice, because of difficulties in record-keeping (due to secondary market trading and data limitations in LICs), FC-denominated debt is often used as a proxy for external debt.

Key to the LIC DSF is the macroeconomic framework. The macroeconomic framework is a set of interrelated projections of key macroeconomic variables across the different sectors of the economy. IMF staff builds projections of the economy's expected behavior under both a baseline and selected alternative stress scenarios. The baseline should represent the most likely scenario given present information.

The LIC DSF framework also requires detailed information on existing public external and domestic debt, as well as planned borrowing from domestic and external sources. The planned financing must be consistent with the financing requirements identified in the macro framework.

To ensure baseline projections are consistent across the fiscal, monetary, financial, and external sectors, the LIC DSF includes four realism tools: drivers of debt dynamics, realism of planned fiscal adjustment, fiscal adjustment-growth relation, and public investment-growth relation. These tools encourage a thorough examination of baseline assumptions.

In addition to a robust baseline, the LIC DSF offers standardized and tailored stress tests that allow for negative shocks to most macroeconomic variables. These tests are key because the most extreme stress test informs the calculation of the mechanical risk signals. Among the tailored stress tests, the "market financing shock" is particularly relevant for this paper. This shock applies to LICs with international market access (Eurobonds). The scenario assesses "rollover risks resulting from a deterioration in global risk sentiment". In particular, the shock assumes a 400 bps increase in the cost of new external debt (sustained for 3 years from the second projection year), a shortening of maturities (5 years or 2/3 of assumed maturities, whichever is shorter), and a one-off FX depreciation of 15 percent in the second year (IMF 2017).

Once realistic macroeconomic projections are in place, a country's debt-carrying capacity (DCC) needs to be established. The LIC DSF uses a composite DCC indicator. The indicator is a nonlinear weighted average of the CPIA index, GDP growth, the share of remittances in GDP, international

[*] PDM conditionality often focuses on processes, such as the preparations of an MTDS, rather than on deeper institutional reforms. In countries where the adoption of legislation focused on debt-management was consolidated institutionally, PDM improvements were durable. The performance of Grenada during the 2014–17 ECF program provides a clear example.

[28] Gill and Pinto (2023) insightfully discuss the evolution of the discount rate to be used in LIC DSF and argue the current 5% is an arbitrary choice, and propose that the LIC DSF framework is reformed to measure debt stocks in nominal terms. This paper's author is sympathetic to such critical view.

reserves relative to imports, and world GDP growth. Using this composite DCC indicator, the LIC DSF classifies countries into three DCC groups: weak, medium, and strong.

The LIC DSF offers two risk assessments. One focuses on risks to external public and publicly guaranteed (PPG) debt, and the other focuses on risks to total PPG public debt (defined as the sum of domestic public debt and the PV of external PPG debt).

For external debt risk assessment, the LIC DSF uses four debt burden indicators based on PPG external debt to capture both liquidity risks and medium- to long-run solvency risks. For the solvency indicators, debt is measured in present value terms. Each indicator is assessed against group-specific thresholds, so countries with higher DCC need to meet higher thresholds to be considered at risk.[29] To measure solvency, the framework uses the PV of external public debt relative to both GDP and exports. To measure liquidity risks, the LIC DSF considers external debt service relative to both GDP and exports.

In turn, the total public debt risk assessment relies on an additional debt burden indicator, total public debt over GDP, which is assessed against its own indicative, group-specific threshold.

Table 3 presents the 15 indicator thresholds currently in use. These imply that the capacity to carry domestic debt on top of the maximum PV of external debt ranges between 5% and 15% of GDP.

Table 3. Risk thresholds within the LIC DSF

Debt Carrying Capacity	PV of PPG Ext. Deb. as % of		PV of PPG Ext. debt service as % of		PV total public debt as % of
	GDP	Exports	GDP	Exports	GDP
Weak (CI<2.69)	30	140	10	14	35
Medium (2.69<CI<3.05)	40	180	15	18	55
Strong (CI>3.05)	55	240	21	23	70

Source: IMF (2018)

Given the macroeconomic projections and the risk thresholds, risk ratings are determined as follows. If no threshold is breached under either the baseline or the most extreme stress test, the country is at low risk of debt distress. A country is at moderate risk of debt distress if the thresholds are not breached under the baseline but at least one threshold is breached under the stress tests. Finally, a country is at high risk of debt distress if at least one indicator breaches the threshold in the baseline.[30] The LIC DSF must assess whether a "significant or sustained breach" warrants rating the debt as unsustainable ("in distress"). Such determination must incorporate broader judgment where domestic debt plays a relevant role.

For countries with market access, LIC DSF offers a Market Financing Pressures (MFP) tool. The MFP tool provides an additional signal on the extent of market-financing pressures in the baseline. These benchmarks are calculated for countries with substantial market financing, meaning those for which the market-financing tailored stress test is available. The MFP tool includes:

[29] Thresholds are statistical bounds above which the risk of debt distress is considered elevated.
[30] When there is a high-risk of total public debt distress, judgement should determine whether this should affect the external risk rating. Where non-residents are an important share of domestic debt flows, concerns about external risks may need to be revisited (IMF 2017).

- A market pressure signal based on sovereign spreads on international bonds with a risk threshold of 570 basis points
- A risk threshold of 14% of GDP for external public gross financing needs. A breach of both thresholds would signal high rollover risks

A breach of one indicator would signal moderate market financing pressures. This information is an input to staff judgment in the final determination of risk ratings.

Last but not least, the LIC DSF not only plays a role in determining whether a debt restructuring is needed, but it is also key to discerning the extent of debt relief the country needs to obtain from creditors so that debt can be assessed at a moderate risk of debt distress.

4.2. Domestic debt in the LIC DSF

Domestic financing is detailed in the LIC DSF macroeconomic framework. Domestic debt sources are broken out by sector and maturity. According to IMF (2018), domestic financing assumptions should reflect shifts in borrowing terms and the financing mix over time. In the near term, projections generally follow the authority's medium-term debt management strategy. Over the longer term, as countries grow, domestic debt would be expected to shift from central bank and short-term sources to longer-term borrowing via a range of market-based bonds issued competitively.

The LIC-DSF accounts for public domestic debt vulnerabilities through the total public debt risk assessment, in which domestic debt is treated as an input to the PV of total public debt. Any additional role of domestic debt vulnerabilities in setting risk ratings emerges through the application of judgment.

Motivated by the increase in domestic debt use by LICs since the pandemic, the 2024 Supplement to the 2018 LIC DSF Guidance Note (IMF 2024a) offers a stand-alone, risk-based, qualitative analysis of the dynamics of domestic public debt indicators. The Supplement also offers guidelines for assessing the consistency of domestic public borrowing plans with the maintenance of macroeconomic and financial stability. These assessments, which consider whether domestic debt vulnerabilities are a concern beyond the analysis of total public debt indicators, are expected to help inform better judgment.

According to IMF (2024a), an overview of public domestic debt vulnerabilities in LICs can be obtained through three complementary analyses:

1. **Analyzing the magnitude of breaches of the overall public debt burden indicator relative to breaches of external debt burden indicators.**

IMF (2024a) proposes to consider whether the breach of the external risk threshold relative to GDP is larger than the breach of the total public debt threshold. If the breach of the public debt threshold is larger, it should indicate domestic debt vulnerabilities.

2. **Assessing the level of domestic debt, debt service, and the primary balance among those countries at high risk of overall debt distress or already in distress.**

These indicators help identify countries with relatively high vulnerability to high domestic debt burdens and rollover risks. IMF (2024a) identifies benchmarks of 17 percent for the average domestic public

debt-to-GDP ratio and 22 percent for the average domestic public debt service-to-revenue ratio as indicative of domestic debt vulnerability.

Domestic debt risks can be considered low if both domestic public debt indicators are below their peer-group medians and projected dynamics do not deviate from historical patterns. If at least one indicator exceeds its peer-group median or projected dynamics deviate significantly from historical patterns, closer scrutiny of potential risks stemming from the domestic public borrowing plan is recommended. Larger deviations in forward-looking domestic public debt indicators would warrant a more detailed analysis.

3. **Assessing the consistency of the domestic public borrowing plan with maintaining macroeconomic and financial stability**

The analysis of the consistency of the domestic public borrowing plan should include the following elements:

- Assess the realism of the projected take-up of debt and its associated effects by creditor.[31]
- Assess the health of the domestic financial sector and the prospects for stable access to external financing (in the case of non-resident participation in the domestic bond market).
- Assess debt management capabilities, including the development of the domestic market's capacity to absorb additional domestic public debt in a sustainable manner.
- Assess the consistency of any assumed absorption of new domestic debt by the central bank with macroeconomic assumptions (inflation, exchange rates). Where the share of FX-denominated or FX-indexed debt in domestic public debt is significant, the analysis should also cover debt-related exchange rate risks.
- Assess the functioning of the primary and secondary government domestic bond markets with a view to identifying signs of market pressures.

4.3. A critical assessment of domestic debt with LIC DSF

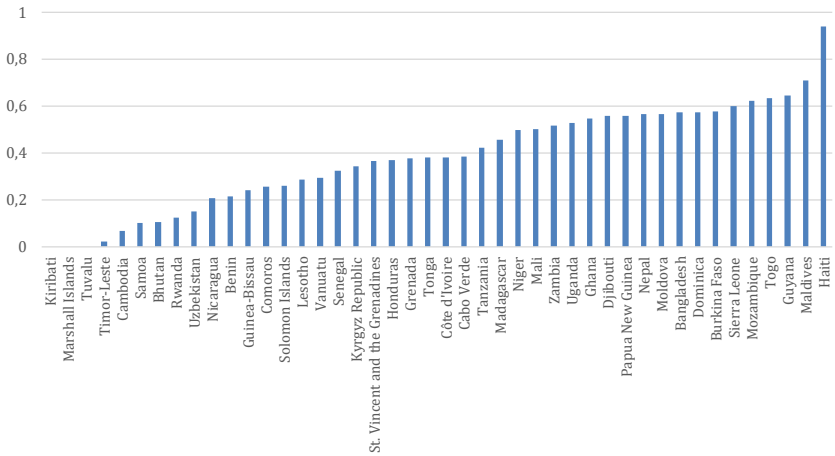
As aptly put by Gill and Pinto (2023), the LIC DSF is an analytical framework that was appropriate in the pre-HIPC-MDRI and immediate post-HIPC-MDRI eras. Yet over the past decade, the cost of borrowing for the countries assessed under the LIC DSF has increasingly been determined by domestic debt markets.

- **This renders the current use of present value to measure debt stocks questionable and calls for consideration of whether LIC DSF should focus on nominal debt**.

An additional concern with the LIC DSF is that the framework does little (if anything) to recognize the heterogeneity of LICs' financing and the significant role that domestic debt plays in that heterogeneity. Even countries that do not issue bonds internationally, borrow domestically in local currency on commercial terms. Figure 2 uses data from Arslap and Tsuda (2014, updated by IMF) to exemplify the very heterogeneous role domestic debt plays in sovereign financing.

[31] A useful starting point is a comparison of the projected net financing with the levels in the recent past.

Figure 2. The heterogeneous role of domestic debt in LICs



Sources: International Monetary Fund. Data refers to 2024. Blue bars represent domestic holdings of public debt measured as a ratio to total outstanding public debt.

- **LIC DSF needs to systematically reflect differences in the weight of domestic debt.**

This lack of a systematic way to recognize the varying importance of sovereign domestic debt helps understand why the macroeconomic projections underpinning LIC DSF are subject to systematic negative debt, GFN, interest, growth, and inflation surprises (IEO 2024).

Relatedly, Erce (2024) shows that IMF programs significantly underestimate local-currency borrowing, which translates into an underestimation of gross financing needs and interest payments on local-currency debt. Erce (2024) argues that the combination of lower growth, higher inflation, more GFN, and higher interest payments than projected can be explained by sovereigns' tendency to borrow domestically to a greater extent than the IMF projects.[32]

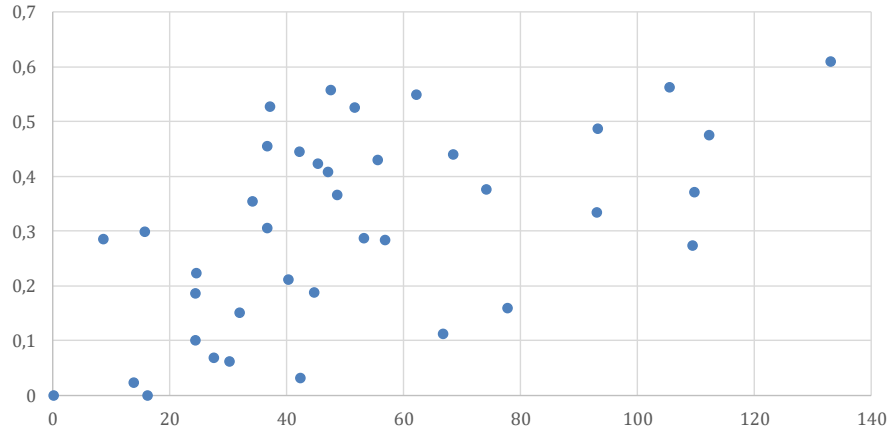
- **LIC DSF needs a systematic, structured approach to linking domestic sources of sovereign financing to economic growth. The scenarios that inform the DSA should robustly embed the effect of the domestic/external sovereign debt mix on macroeconomic dynamics.**

The importance of domestic debt should also be extended to another key ingredient of the LIC DSF: the debt-carrying capacity analysis. The analysis targets instances of domestic debt distress, but the indicators it uses relate most clearly to external debt distress.

[32] More domestic debt can push up inflation, crowd out investment and growth. Also, a larger fraction of short-maturity local debt on the borrowing mix will increase GFN and interest payments on local debt

To illustrate why the DCC analysis should consider the external/domestic debt mix, Figure 3 below presents a scatterplot of data for LIC countries as of the end of 2024. The vertical axis plots public debt levels over GDP. The horizontal axis presents the ratio of domestic public debt to total public debt.

Figure 3. Public debt levels and the domestic/external mix



Notes: Data on public debt comes from the IMF. Data on GDP comes from the World Bank. Data refers to the 39 LICs that have information about domestic debt holders for the year 2024. The vertical axis collects the portion of total public debt that is held by residents (other that the NCB). The horizonal axis collects the ratio of total public debt to GDP. The correlation between both variables is 0.548.

A remarkable fact emerges from Figure 3: **countries where domestic public debt plays a larger role in total public debt can sustain larger debt-to-GDP ratios.** The nude correlation between the two variables is large (0.55) and positive. This is a fact that the LIC DSF's method to determine debt-carrying capacity does not accommodate.

- **LIC DSF should consider calibrating DCC to account for the role of domestic debt in total public debt.**

- **LIC DSF should set a risk threshold that depends on the relative usage of domestic and external debt.**

Relatedly, LIC-DSF sets different country-specific targets for external debt stock and service, yet includes no threshold uniquely focused on domestic debt.[33] But this, given that LICs also default domestically, leaves the IMF without tools to discern when domestic default can happen. Moreover, if domestic debt is less relevant for the thresholds, the framework offers incentives to countries to use it relatively more, as its accumulation makes it less likely that public debt metrics will cross the risk thresholds.

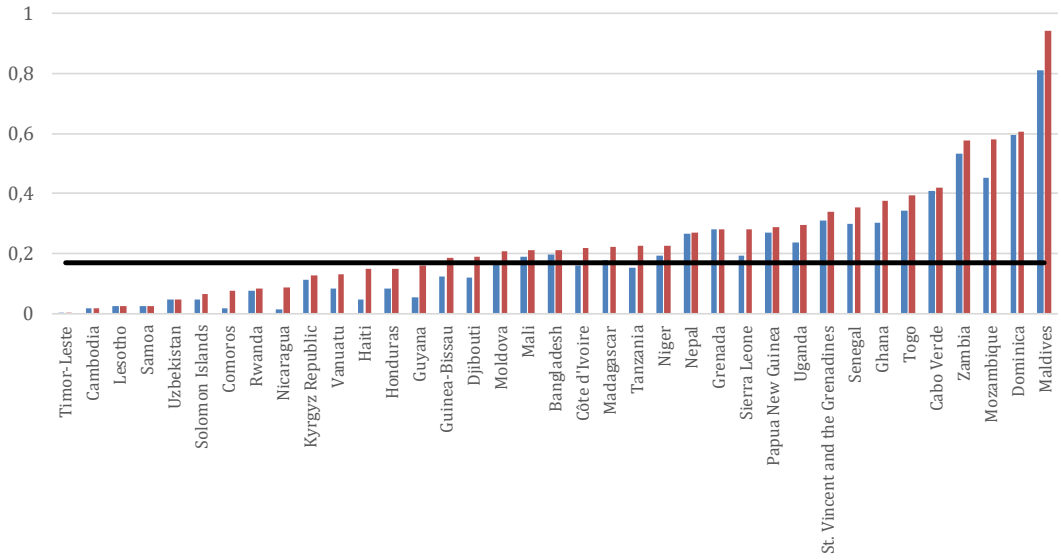
- **LIC DSF should embed itself domestic debt-specific risk thresholds to enable a systematic and standardized assessment of domestic debt vulnerabilities.**

[33] In the recent case of Zambia, attempts at leaving foreign holders of domestic debt out of the debt restructuring created substantial problems. Only the domestic debt held by foreign creditors absorbed all of Zambia's capacity to sustain external debt (as measured by the LIC DSA debt service thresholds).

- **The Market Financing Pressures tool, which currently focuses on external debt, should be refined to assign a systematic role to both debt-carrying capacity and the domestic/external financing mix.**

IMF (2024a) provides qualitative, risk-based guidance for assessing domestic debt vulnerabilities. The guidance includes two quantitative markers for domestic debt stocks and domestic debt service. According to that advice, countries with domestic debt levels above 17% of GDP should be considered at risk. Yet, as Figure 4 shows, a majority of LICs are above such a threshold.

Figure 3. Domestically held debt -ratio to GDP



Sources: IMF for domestic debt and World Bank for GDP. Data refers to 2024. Blue bars represent domestic holdings excluding the Central Bank. Red bars include the Central Bank holdings of domestic sovereign debt. The black line represents the IMF LIC DSF risk threshold for domestic debt to GDP.

- **LIC DSF needs sharper quantitative guidance regarding risks emerging from domestic debt dynamics**

5. Way forward

According to the LIC DSF, in 2026, over 50 low-income countries are facing or at risk of debt distress. Only 10 LICs appear at low risk of debt distress, the lowest level on record. To promote debt sustainability, international policy initiatives should aim to further develop local bond markets. Going forward, countries relying on foreign markets are especially vulnerable. Yet relying on underdeveloped domestic debt markets is far from a guarantee that a sovereign will remain free from trouble. For that reason, developing local-currency bond markets, as well as promoting debt transparency and more robust debt management frameworks, is vital to foster sustainable development (IMF & WB 2021).

The process of developing local markets would be made easier if the IMF better accommodated the management of domestic sovereign debt in its playbook to help avoid overly costly domestic sovereign defaults. This paper argues in favor of the following changes:

- **Improve macroeconomic projections underpinning the LIC DSF.** The LIC DSF macro projections framework needs to systematically embed the importance that the mix of external and domestic sovereign financing has for macroeconomic and financial dynamics. A realism tool that forces staff to consider whether the projected financing mix is realistic, and a more extensive usage of IMF conditionality related to public debt management could help.
- **Revamp the LIC DSF framework.** Most LIC DSF countries have access to commercial borrowing from domestic sources. To reflect this reality, this paper calls for a redesign of the LIC DSF that realistically accounts for the heterogeneous role of domestic debt in LICs:
    - Design a framework based on nominal debt levels to accommodate heterogeneity in the domestic and external sovereign financing mix
    - Set debt carrying capacity groups and risk thresholds that are mix-dependent.
    - Add modified domestic debt-specific risk thresholds to enable a systematic and standardized assessment of domestic debt vulnerabilities
- **Design debt operations that minimize effects on long-term growth.** To support long-term development, the welcome increase in attention paid to the impact of debt restructuring on financial stability should also extend to non-financial domestic creditors. Defaulting domestically has developmental effects, beyond financial stability, that require heightened attention.
- **Reconsider IMF arrears policies to limit strategic defaults.** IMF arrears policies prioritize repayment to foreign private creditors at the expense of residents. This may segment bond markets during periods of distress and lead to the build-up of arrears with local non-financial creditors, undermining long-run growth prospects. Is that the correct approach?

Map domestic debt within the G20 Common Framework. The lack of a well-defined, rules-based role for domestic debt is even more pronounced under the G20's Common Framework (CF). For the CF to offer a comprehensive and lasting solution to a sovereign debt crisis, it needs a more modern approach to the role of domestic debt. The CF should promote debt restructurings that explicitly acknowledge that domestic debt markets are key to local wealth creation and long-run stable development. Given these developmental considerations, an automatic comparability-of-treatment clause for domestic debt might not be advisable. Yet the G20 should consider mechanisms to coordinate domestic and external creditors and to ensure that both groups provide early feedback on the design of any macroeconomic framework underpinning a sovereign debt restructuring.

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Annexes

Annex I. Multilateral sources of sovereign domestic debt data

According to the IMF and the World Bank, to facilitate cross-country comparability and comprehensive debt analyses, public sector debt statistics (PSDS) should be compiled and reported based on internationally accepted statistical definitions and concepts. Unfortunately, there are discrepancies across countries in the definitions and coverage of PSDS both in the international statistical standard and the LIC-DSF. These differences reflect differences at national levels, where creditor-residency and currency of denomination are most widely used.[34]

LICs report debt data to four main statistical databases, hosted by the IMF and World Bank, which align with international definitions: (i) Quarterly Public Sector Debt Statistics (QPSDS), (ii) Quarterly External Debt Statistics, (iii) Government Finance Statistics (GFS), and the (iv) Debtor Reporting System (DRS) from which the aggregate data are published annually in the International Debt Statistics database. These databases were created for different purposes, and their coverage and definitions differ. Understanding the differences in terms of coverage and other dimensions is very challenging. With the exception of DRS, reporting is voluntary.[35]

The World Bank's DRS is the most comprehensive database on LICs external debt, collecting loan-by-loan information. The DRS has the broadest country and public sector coverage for LICs and the most granular information on external public sector debt. This is likely the best database in order to get a detailed picture of external debt.

The QPSDS database is the most comprehensive and internationally comparable data. It covers outstanding external and domestic debt of the main subsectors of the public sector. It includes breakdowns by original and remaining maturity, type of instrument; currency of denomination; and creditors' residence. Unfortunately, coverage of QPSDS is the most limited (only 17 LICs have reported in the past and just 10 through end-2019).[36]

Compilation of debt information for debt sustainability analyses (DSAs) under the LIC-DSF focuses on identifying and assessing debt-related risks. Public debt data used for DSA under the LIC DSF broadly follow the PSDS statistical methodology. Still, it can differ to facilitate the identification and assessment of risks. The LIC-DSF is expected to be based on near-complete coverage of public and publicly guaranteed (PPG) debt of the public sector. This is because broad public debt coverage is important to arrive at an assessment of risk of debt distress that is comparable across countries. A narrow definition of public debt can contribute to unexpected increases from sources outside the defined perimeter thus underestimating debt risks of the government. It can also incentivize governments to park debt outside the perimeter (in SOEs not included in the perimeter). The LIC DSF includes loans and bonds, as well as arrears and government guarantees, in the public debt stock.[37] All are reported at face values.

[34] There are also differences in accounting techniques (cash versus accrual accounting).
[35] None of the databases collects contingent liabilities and, except for the DRS, publicly guaranteed debt.
[36] Only half of LICs report to other databases.
[37] LIC DSF includes all non-financial SOEs that create significant fiscal risks for the public sector.

The annual GFS database contains full balance sheet data for general government and its subsectors, covering nonfinancial assets, financial assets and liabilities with more detailed instrument breakdowns than the QPSDS. The GFS database allows conducting stock-flow consistency checks for each debt instrument where data are available. GFS focuses on general government, so it doesn't include SOEs.

In 2020, the World Bank set as a priority to enhance the World Bank's DRS to capture more granular details, including domestic debt. The World Bank recently produced a Survey on Public Sector Domestic Debt. The results of the survey are summarised in the Box below.

Box. World Bank Survey on Public Sector Domestic Debt

Target: 120 low-and middle-income countries presently reporting to the DRS. Questions (42) regarding: (i) Legal Framework, (ii) Institutional and instrument coverage, (iii) Methodology and Definitions, (iv) Data Sources and data Availability, and (v) Transparency and dissemination. WB received responses from 70 countries. 2 out of 3 can record basic statistics, including outstanding debt, payment schedule, original maturity structure, currency, interest and instrument type breakdown. 1 out of 2 rely mainly on their national frameworks in compiling and producing debt statistics. The second most used framework is the PSDS Guide for Compilers and Users (IMF, 2011).

The WB Survey shows the wide variation as to what criteria national authorities use to define domestic debt. There are discrepancies in the definition and coverage of domestic debt across countries Residency of creditors is the most common norm although (as this is also the definition needed and used for balance-of-payments purposes). As shown in the Table below, roughly half of countries responding to the survey use this definition.

Table. Criteria for defining domestic debt

	Number of Countries		
	Single Criterion	Multiple Criteria	Total
Currency	11	17	28
Residency	21	14	35
Market	9	17	26
Legal	3	13	16
Other	0	4	4
Total	44		

Source: World Bank Survey on Public Sector Domestic Debt

Instrument coverage varies widely even for the budgetary central government, for which data is mostly available:

- Loans and debt securities are the most common debt instruments covered. Within debt securities, treasury bills and fixed rate bonds are most covered.
- 1 out of 2 include arrears

Annex II. Academic sources of sovereign domestic debt data

Mehl, A. and J. Reynaud (2010). Risky public domestic debt composition in emerging economies. Journal of International Money and Finance 29 (2010) 1–18.

- Country coverage: 33 emerging economies
- Time coverage: 1994–2006
- Definition of Domestic vs External Debt: Currency

Forslund, K., Lima, L. and U. Panizza (2011). The determinants of the composition of public debt in developing and emerging market countries. Institute of Public Policy, Working Paper 156.

- Country coverage: 93 low income and emerging market countries
- Time coverage: 1975-2004
- Definition of Domestic vs External Debt: Currency

Fløgstad, C. (2017). Domestic bond markets in emerging economies: Crowding in or crowding out? Working Papers in Economics 15/17, University of Bergen.

- Country coverage: 19 emerging economies
- Time coverage: period 1995–2012
- Definition of Domestic vs External Debt: Market of issuance

Bénétrix, A., Gautam, D., Juvenal, L. and M. Schmitz (2020). Cross-Border Currency Exposures. New Evidence Based on an Enhanced and Updated Dataset. IMF Working Paper No. 19/299

- Country coverage: 50 emerging economies
- Time coverage: 1990–2017
- Definition of Domestic vs External Debt: Currency

Arslap and Tsuda (2014). This dataset is regularly updated by the IMF

- Country coverage: 98 developing economies
- Time coverage: 2004-2024 (quarterly for EMEs / Annual for LICs)
- Definition of Domestic vs External Debt: Market, currency and residence

Onen, M., Hyun Song Shin, H.S., and G. von Peter (2023). Overcoming original sin: insights from a new dataset. BIS Working Papers No 1075

- Country coverage: 25 emerging economies
- Time coverage: 2005-2021 (quarterly)
- Definition of Domestic vs External Debt: Market, currency and residence

Annex III: The SRDSF

The SDRSF provides two outputs: a sovereign risk assessment and a debt sustainability assessment. These assessments aim to capture vulnerability to sovereign stress events, risks that debt could become unsustainable, and prospects for stabilizing the debt under the baseline The SRDSF is composed of risk assessments at three different horizons: near-term, based on a multivariate (logit) model predicting sovereign stress over 1–2 years; medium-term (up to 5 years) consisting of (i) a debt fan chart module (DFC Module) to assess prospects for debt stabilization, (ii) a module for a granular analysis of rollover risks (GFN Molude, and (iii) triggered stress-tests to model specific risks; and optional tools to assess long-term risks (beyond 5 years).

The SRDSF uses charts to illustrate a large set of potential vulnerabilities arising from the debt structure (maturity, currency, residence of holder and governing law). The framework contains a large set of realism checks, including on forecasts of debt drivers, output gaps, debt changes, fiscal adjustment optimism, fiscal multipliers, growth projections, and financing terms.

The GFN and DFC Modules are two key ingredients of the current framework. They enable IMF staff to assess debt dynamics and refinancing needs. DFC offers insights into the likelihood that total public debt will stabilize. GFN analyses how large the demand for additional financing might be in case of shocks and whether local banks can increase their government exposures in case market access complicates and foreign inflows to the government dry out.

An overview of weak points

The macroeconomic dynamics of a country are markedly affected by whether the sovereign borrows and defaults domestically or externally. Yet, IMF staff has no systematic approach to embed such differences in the design of the macroeconomic scenarios.

This lack of an analytical framework extends to the expected capacity to borrow from domestic markets (IEO 2021). In fact, IMF available staff advice for measuring market access refers only to international capital markets. According to Guscina and others (2017) domestic debt issuance constitutes international market access if non-resident participation is significant.

Thus, a first area where the SRDSF needs to improve is how it builds countries' macro-economic frameworks. For countries that source the bulk of their financing via domestic markets, their connection to internal demand, capital flows and growth should be systematically modelled. The combination of lower growth, higher inflation, more GFN and more interest payments than predicted can be explained by sovereigns' tendency to borrow domestically relatively more than what the IMF projects. More domestic debt can push up inflation, crowd out investment and growth. Also, given its shorter maturity, a large fraction of shorter-maturity domestic debt on the borrowing mix will also increase GFN, as well as the interest payments on local debt.

Another area where domestic debt needs better integration is the GFN module. The module analyses whether local banks can absorb additional public debt in case large foreign outflows, yet there are various aspects that could be improved:

- Create evidence linking roll-over shocks to domestic and external market access and macro-financial conditions realistically.[38]
- Allow GFN carrying-capacity to depend on whether debt is domestic or external (domestic debt often has shorter maturity but it is also easier to roll over).
- Avoid assuming that debt absorption capacity by resident creditors is limited by the maximum level that local banks have historically held. Such assumption denies the role of future domestic savings as a source of stability.
- Embed catalytic effects (IMF lending can have catalytic or anti-catalytic effects depending on volumes and repayment profiles)

Related to the above, another contentious issue with the SRDSF relates to its use when IMF loans are exceptionally large and debt is not sustainable with high probability. When SRDSF states that debt is sustainable but not with high probability, staff uses the SRDSF to implement two tests that enable answering whether access to IMF resources is possible. The Debt Sustainability (DS) test, through which staff can assess whether there is sufficient exposure to conduct a later debt operation which keeps the country in sustainable even if not with high probability. and the FX-availability (FXA) test, with which staff assesses whether there are sufficient FX resources, including by considering the absorption capacity of domestic banks.

- A first concern with the application of both DS and FXA tests is their reliance on a snapshot of cross-border ownership that, where secondary markets are active, can change rapidly.
- A second one relates to the fact that the tests treat asymmetrically domestic and external creditors. A symmetric treatment would be premised in that government borrowing in local currencies can be turned into FX to repay the IMF. But this presupposes that either there is a deep FX market or that the central bank has enough international reserves, which for a substantial number of countries is doubtful to hold during crises.

Thus, the tests assume that local currency financing or financing coming from domestic creditors will offer a weaker source of restructurable debt than external debt. Given that this penalizes future domestic savings, contributing to limit development, it should be considered more rigorously and systematically.

In a nutshell, as Figure A1 (extracted from the SRFDSF Guidance note) shows, the SRDSF makes no consistent use of the different dimensions of domestic and external debt. The IMF should further clarify how the role liabilities play in assessing whether debt sustainability thresholds are met depend on their currency, market and holder

[38] As an example, the latest IMF program in Ukraine assumes that all domestic debt will be rolled over.

Figure A1. Domestic debt within the SRDF

Variable	Module				
	Realism tools, debt	Near-term (logit)	Medium-term		
			Debt fanchart	GFN module	Stress tests
Fiscal data/projections (up to t+5)					
Primary revenues, expenditures, balance	●	●	●	●	●
Interest bill (existing debt) and receipts	●		●	●	●
Debt					
By residency (incl. external debt)		●		●	
By currency			●		●
By maturity	●			●	
By holder	●			●	●
By legal basis	●				

Source: Table AIII.1 (IMF 2022)

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