CHAPTER 3

GLOBAL SHOCKS, LOCAL MARKETS: THE CHANGING LANDSCAPE OF EMERGING MARKET SOVEREIGN DEBT

Chapter 3 at a Glance

- Amid rising global sovereign debt levels and heightened vulnerabilities to global shocks, this chapter examines the changes in emerging market and developing economies' (EMDEs') domestic debt markets.
- The structure of government debt has increasingly diverged in emerging markets with stronger economic fundamentals from others that continue to face significant financing and debt challenges.
- Many emerging markets with strong fundamentals have been able to issue domestically in local currency and, given the subdued interest from international buyers, have found new resident buyers.
- This shift toward local currency issuance has supported resilience, as EMDEs with higher shares of local currency debt and more diverse investor bases have exhibited more stable bond yields and market liquidity during periods of global stress.
- In contrast, EMDEs with weaker policy credibility and shallower pools of domestic financial savings remain reliant on foreign currency borrowing, short-term local currency debt, or less stable funding sources.
- The growing sovereign-bank nexus in some EMDEs warrants attention, as it may mask underlying weakness in debt absorption capacity and amplify financial stability risks.

Policies to Address Financial Vulnerabilities

- Enhancing macroeconomic fundamentals—such as raising domestic financial savings and strengthening fiscal and monetary credibility—remains essential to increase debt-carrying capacity and attract stable sources of long-term funding.
- Proven positive steps can also be taken to deepen EMDEs' local currency bond markets and enhance their functioning, with benefits for financial stability. These include enhancing the predictability and transparency of debt issuances, developing efficient repo and money markets, strengthening primary dealer frameworks, and diversifying the investor base.

Introduction

This chapter examines the evolution of emerging market and developing economies' (EMDEs)[1] domestic debt markets against a backdrop of rising debt levels and heightened vulnerabilities to global shocks. Over the past decade, total government debt among EMDEs has more than doubled to nearly $30 trillion (close to $12 trillion excluding China), and nonresident portfolio inflows have slowed. Although many EMDEs and their local bond markets have demonstrated resilience to a variety of global shocks (see Chapter 2 of the October 2025 *World Economic Outlook*), the contrast with those that have faced significant distress and macroeconomic instability highlights the structural and market challenges related to domestic bond market development.

EMDEs have experienced significant outflows from their domestic local currency bond markets (LCBMs)[2]

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[1]In this chapter, "emerging market and developing economies" (EMDEs) is used as a general term covering a full economy sample of 56 economies, which are classified into 12 major emerging markets, 7 other emerging markets, and 37 frontier markets (see Online Annex 3.2 for the full list).

[2]The term "local currency bond market" (LCBM) used throughout this chapter refers to marketable securities issued by the government in local currency in the domestic market. Countries most commonly issue in local currency in their domestic markets and in hard currency (most often US dollars or euros) in international markets. While exceptions to this pattern exist, data limitations preclude more detailed analyses of this issue at present.

and financial stress during global shocks like the 2013 "taper tantrum." As a result, EMDEs have sought to increase the role of resident buyers in their financing strategies. In addition, weak returns in LCBMs over the past decade—driven largely by continuing dollar strength—have made them a less appealing asset class for global investors benchmarked to US dollar assets. Considering these developments, EMDEs have had two main options for funding increased debt issuance: find more resident buyers for local currency debt or continue to rely on foreign-currency-denominated sovereign bond issuance or external loans. Compared to many advanced economies, financial markets in EMDEs tend to be less developed, and their domestic debt markets are more exposed to market stress and spillovers from global shocks.

A select group of major emerging markets has largely been able to rely on local currency issuance that has been increasingly absorbed by domestic investors amid higher domestic financial savings. This has helped reduce the risks stemming from both "original sin" (currency mismatch) and "original sin redux" (nonresident outflows). Other EMDEs have expanded borrowings largely through relatively shorter maturity financing from domestic banks and the central bank and often continue to rely on expensive foreign currency debt. Last, several EMDEs have had to resort to domestic debt restructuring because of unsustainable public debt burdens.[3]

Although all government debt is considered, this chapter focuses on LCBMs and investigates how the changes in composition of debt issuance, investor absorption, and market structure have influenced resilience to external shocks (see the "Recent Trends in EMDE Sovereign Debt Markets" section). It has been well established that LCBMs play a critical role in enhancing macrofinancial stability and deepening domestic financial systems. By reducing currency mismatch and rollover risks, they insulate public finances from external shocks and support countercyclical responses. To help overcome limitations from wide variations in data coverage, this chapter focuses on a newly compiled data set of government debt issued in domestic markets in 56 EMDEs, broken down by investor type, which constitutes over 90 percent of local currency government debt outstanding in EMDEs. EMDEs are classified into *emerging* and *frontier* markets, with emerging markets further classified into *major* and *other emerging markets* on the basis of market size and fragmentation.[4]

This chapter estimates the effects of global shocks on LCBMs and how these effects are associated with the degree of participation by nonresident versus domestic investors, as well as the split between banks and nonbank financial institutions (NBFIs) within domestic investors. Empirical results confirm that the presence of more nonresident investors is indeed associated with greater sensitivity of domestic markets to global shocks, while the presence of more domestic investors—notably banks—is associated with lower sensitivities (see the "EMDE Bond Market Sensitivity to Global Shocks" section).

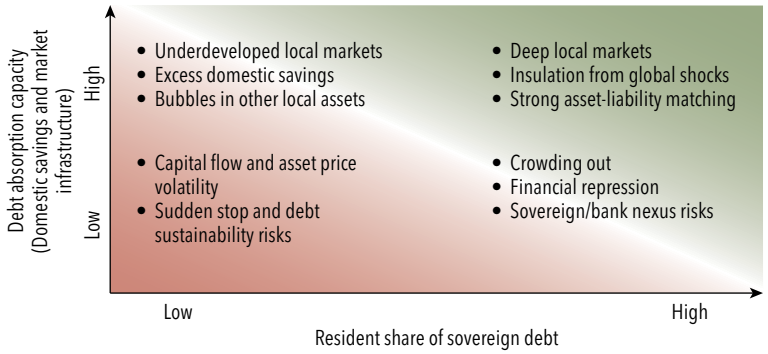
Although these results suggest that more resident buyers of local currency debt tend to improve resilience to global shocks, this does not mean that more domestic buyers are always better. This chapter also explores the drawbacks that may be associated with an overreliance on domestic issuance and demand (see the "Vulnerabilities: Limited Absorption Capacity and the Sovereign-Bank Nexus" section). To this end, this chapter highlights the risk of overborrowing and the adverse feedback loops that could ensue if domestic banks were to absorb excessive amounts of sovereign debt (that is, the sovereign-bank nexus), which could lead to large financial stability downsides in cases of debt distress or restructuring. Resilience in EMDEs, therefore, depends on macroeconomic factors such as monetary and fiscal credibility (see Chapter 2 of the October 2025 *World Economic Outlook*), as well as sufficiently deep and liquid sovereign debt markets that feature a diverse domestic buyer base with high absorption capacity.

Rapid expansion of LCBMs without adequate absorption capacity and strong monetary and fiscal anchors can lead to overreliance on captive investors like banks and central banks, raising financial stability risks and resulting in the crowding out of private

[3]Emerging and frontier markets who restructured their sovereign domestic debt since 2010 include economies such as Argentina, Ghana, Jamaica, and Sri Lanka.

[4]See Online Annex 3.2 for economy classification of local currency bond markets. "Major EMs" (12) are those that have local currency marketable bonds above 25 percent of GDP, with a minimum of 50 percent of bonds exceeding $1 billion. "Other EMs" (7) are non–frontier markets that have local currency marketable bonds of more than 10 percent of GDP and at least 15 percent of bonds above $1 billion. Economies classified as frontier markets (37) are a sample of economies that are either part of the JPMorgan Next Generation Markets Index, are lower-income countries with outstanding Eurobonds, or that have local currency marketable bonds-to-GDP >10 percent; and 15 percent of outstanding bonds with size >$250 million equivalent.

Figure 3.1. Financial Stability Framework for Local Sovereign Debt Markets in Emerging Market and Developing Economies



Source: Authors.

credit. In extreme cases, unlike sovereign external debt restructuring, domestic debt restructuring can impose disproportionate losses on domestic banks and financial institutions, threatening systemic stability and transmitting sovereign stress across the economy (IMF 2021).

Against this backdrop, LCBM development has two aims: (1) to reduce currency mismatch and sudden stop risks by anchoring financing in local currency and (2) to limit losses and spillovers to domestic investors should a domestic debt restructuring be required. To conclude, this chapter provides policy advice on developing a resilient LCBM, drawing on findings from the IMF and the World Bank's LCBM diagnostic framework and on broader technical assistance for LCBM development (see the "Deepening Local Currency Bond Markets to Enhance Financial Stability" section). While improving macroeconomic fundamentals—such as raising domestic financial savings and ensuring a stable macrofinancial environment—remains essential for LCBM development, a strong policy framework and robust financial market systems are critical for channeling financial savings into a well-functioning local market. Foundational market infrastructure (including money markets, primary markets, and secondary markets) must be developed, legal certainty provided, and sustained efforts to deepen the investor base through sound debt management practices and market communication undertaken. In the absence of these elements, efforts to deepen sovereign debt markets often stall, raising financial stability risks from poor price discovery, shallow liquidity, and excessive reliance on banks and public institutions to absorb government debt.

Framework for Assessing EMDE Sovereign Debt Markets

The framework in Figure 3.1 highlights the interaction of domestic absorption capacity and the role of resident investors, as well as the consequences of this interaction for financial stability. Absorption capacity requires both strong macroeconomic fundamentals to generate sufficient domestic financial savings and sound financial market systems to channel these savings into the LCBM. The framework assumes two core financial stability objectives by sovereign issuers: (1) expand local currency issuance to domestic investors to reduce both currency mismatch and the risk of capital outflows and (2) minimize the risks to domestic financial institutions by building an investor base with a larger and more diverse share of resident buyers willing and able to hold more local currency government bonds.

Broadly speaking, this interaction leads to four possible outcomes. When high debt absorption capacity is successfully used to increase the share of domestic buyers, EMDEs are more insulated from global shocks because assets and liabilities in the economy are matched in local currencies. Even in this case, however, there is the trade-off that bond markets and resident investors might be more exposed to local shocks.[5] When absorption capacity is low but domestic buyers are nonetheless forced to buy sovereign debt, financial repression and sovereign-bank nexus risks may ensue. The more unusual case of an economy with ample

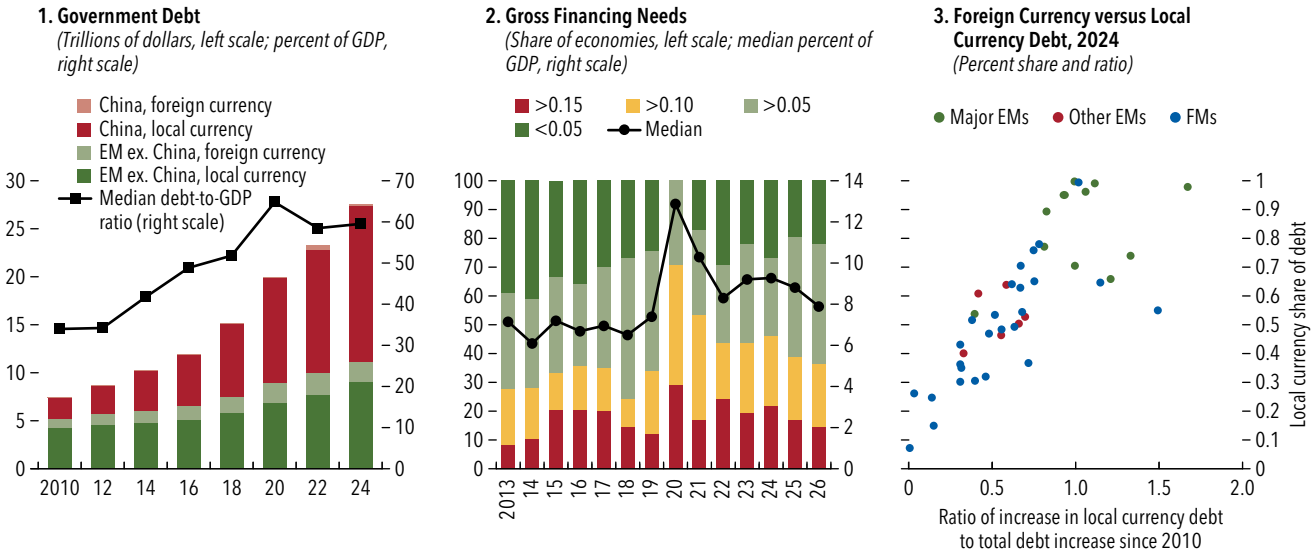
[5]For example, this can include inflation shocks that lead to valuation losses in bonds held by resident investors despite well-functioning markets. This chapter does not analyze this domestic trade-off.

Figure 3.2. Recent Trends in Emerging and Frontier Debt Markets

Government debt has increased sharply over the past 15 years, with the median debt-to-GDP ratio reaching close to 60 percent.

Gross financing needs have remained above prepandemic levels for many economies.

Major EMs primarily issue in local currency, while many other EMs and FMs still rely more on foreign currency issuance.



Sources: IMF, World Economic Outlook database; IMF staff calculations; and sovereign investor base estimates by Arslanalp and Tsuda (2014).

Note: Panel 1 includes the maximum sample of 56 countries (see Online Annex 3.2). Panel 2 includes a subset of 45 countries based on data availability. Panel 3 includes only countries where the general government debt as a percentage of GDP increased between 2010 and 2024. "Major EMs" are Brazil, China, Colombia, Hungary, India, Indonesia, Malaysia, Mexico, the Philippines, Poland, South Africa, and Thailand. Frontier markets are classified according to the methodology in the October 2025 *Global Financial Stability Report*, Chapter 3, footnote 5. "Other EMs" are the balance of the sample. EM = emerging market; ex. = excluding; FM = frontier market.

potential absorption capacity (that is, high domestic financial savings) but without a well-developed debt market to absorb these savings could lead to asset bubbles in other local markets such as real estate or public equities. In the worst case, EMDEs with both low shares of resident buyers and low absorption capacity are forced to rely on foreign borrowing and are more vulnerable to sudden stops of capital flows and debt sustainability risks. With many EMDEs starting in this low/low corner, the challenge has been to move to the high/high quadrant without getting stuck in the bad equilibrium of overreliance on a high share of domestic bank investors while still lacking adequate absorption capacity.

Recent Trends in EMDE Sovereign Debt Markets

Financing Needs Are Growing as Public Debt Rises

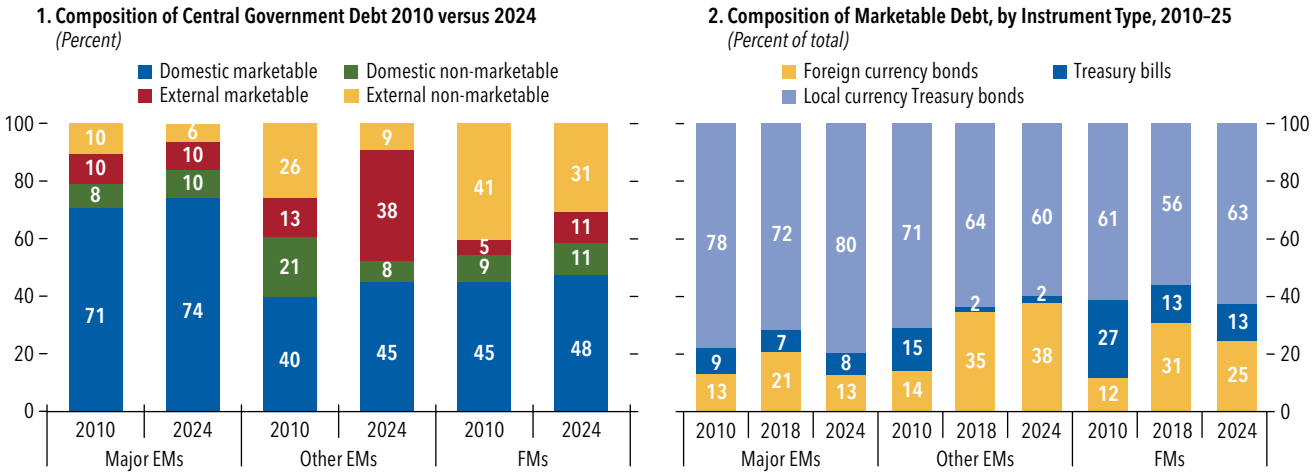
Government debt in EMDEs has been rising rapidly since 2010, reaching close to $30 trillion (nearly $12 trillion excluding China), with the median debt-to-GDP ratio reaching close to 60 percent of GDP (Figure 3.2, panel 1). Gross financing needs are forecast to ease slightly but remain above the levels seen immediately before the pandemic in many economies, leaving them more vulnerable to future shocks (Figure 3.2, panel 2).

Foreign currency borrowing has become less prominent in some EMDEs, but progress has been uneven, and the currency composition of government borrowing still varies considerably across economies. Major emerging markets, a minority of our broad sample, have more than two-thirds of total government debt in local currency and have avoided large net foreign currency issuance since 2010. In contrast, other emerging and frontier markets still rely significantly on foreign currency debt amid less developed LCBMs (Figure 3.2, panel 3). Expansion of LCBMs in EMDEs has taken place amid widely varying macroeconomic and institutional conditions, shaping the depth and resilience of LCBMs to different degrees (see the "Deepening

Figure 3.3. Composition of Marketable Domestic Public Debt in Selected Emerging Market and Developing Economies

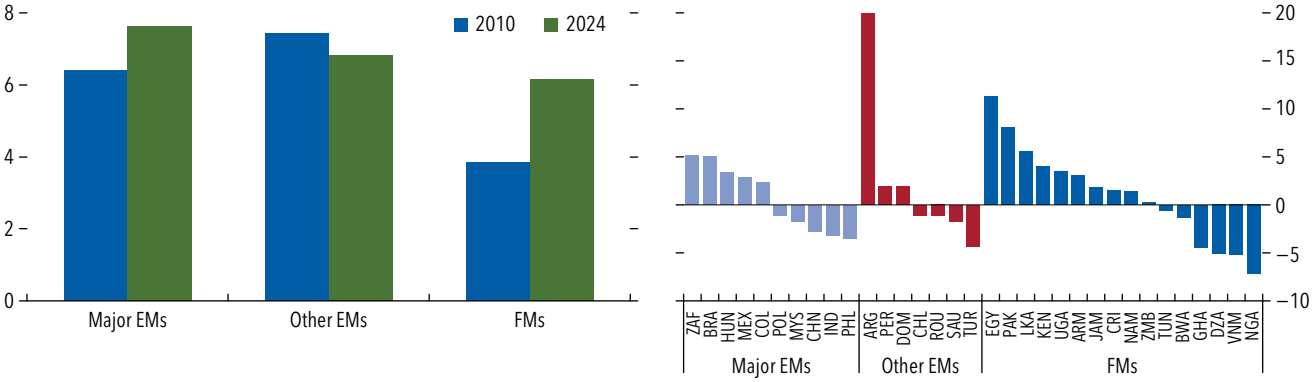
Major EMs issue mostly on local currency markets, while other EMs and FMs rely more on international bonds and external loans, respectively.

Regarding marketable debt, major EMs are able to issue a greater amount of longer-term local currency bonds, while other EMs and FMs issue more short-term securities and foreign currency bonds.



Most EMs and FMs extended their local currency bond maturities, but maturity declined for Other EMs, reflecting cost and absorption constraints.

Carrying cost of domestic debt portfolio in real terms exceeds projected real growth in several countries.



Sources: Bank for International Settlements; Bloomberg Finance L.P.; national authorities; national sources; and IMF staff calculations.

Note: Panel 1 shows the annual weighted average share of total marketable debt issuance for economy groupings since 2010 split between the domestic and foreign jurisdiction of debt instruments. Panel 2 shows the simple average composition of marketable debt for a group of 36 EMDEs. Panels 3 and 4 refer to domestic debt only. Local currency bond market classification is based on two thresholds: (1) domestic debt-to-GDP ratio and (2) the share of bonds exceeding a minimum outstanding size. "Major EMs" are defined by domestic debt-to-GDP ratios above 25 percent with at least 50 percent of bonds exceeding $1 billion outstanding. "Other EMs" meet a 10 percent domestic debt-to-GDP threshold and have at least 20 percent of bonds above $1 billion. "FMs" are those within the broader frontier sample that meet a 10 percent domestic debt-to-GDP threshold with at least 15 percent of bonds above $250 million. See Online Annex 3.2 for details of this classification. EM = emerging market; FM = frontier market. Data labels in the figure use International Organization for Standardization (ISO) country codes.

Local Currency Bond Markets to Enhance Financial Stability" section). Although not within the scope of this chapter, corporate debt in more developed large emerging markets has also migrated toward local currencies (Box 3.1).[6]

Major emerging markets issue primarily in local currency in their domestic debt markets.[7] However, other emerging and frontier markets also rely significantly on foreign currency denominated international bonds and external loans, respectively (Figure 3.3, panel 1).

[6]A well-functioning LCBM is foundational for development of domestic corporate bond market by, for example, providing a reliable local currency yield curve benchmark (IFC 2025).

[7]At the end of 2024, a few emerging markets had a modest share of foreign-currency-denominated bonds in their domestic bonds outstanding, notably Argentina and Türkiye, alongside some recent restructuring cases such as Ghana and Sri Lanka.

In terms of maturity, many major emerging markets have been able to rely on long-term local currency bonds to meet financing needs (Figure 3.3, panel 2), thereby mitigating rollover risks, and have extended their maturity profiles over the past 20 years as a result of improved macroeconomic stability and a larger institutional investor base. For major emerging markets, the average time to maturity of debt reached seven years in 2024 (Figure 3.3, panel 3), and the average cost on the domestic debt portfolio declined marginally. Nevertheless, some major emerging markets have had to compensate investors for additional risk through the use of inflation-linked or floating-rate instruments, whereas others also use marketable sukuk to meet investor preferences.[8] Many frontier markets have also significantly extended maturities since 2010, although some have seen the average interest cost on domestic debt portfolios rise significantly.

Extending debt maturities in countries with less stable macroeconomic environments and fiscal anchors can lead to rising term premiums. This highlights the trade-offs faced by debt managers in balancing funding costs and refinancing risks for local currency borrowings.[9] In several economies, the real interest rate on outstanding domestic bonds exceeds projected real GDP growth over the next five years, suggesting that the net real carrying cost of domestic debt may impose fiscal burdens in the years ahead (Figure 3.3, panel 4).

Weak Returns Have Weighed on Nonresident Investor Risk Appetite

Portfolio flows to LCBMs have broadly decelerated over the past 10 years despite a modest uptick in recent months. Inflows to local currency debt averaged over 1 percent of GDP in aggregate (excluding China) from 2010 to 2014 but under 0.5 percent of GDP from 2015 to 2024,[10] with inflow cycles becoming smaller and shorter (Figure 3.4, panel 1). Staff analysis finds that a strong dollar and higher US Treasury yields have played significant roles in curbing flows to LCBMs,[11] yet other related recent work suggests that the role of the global financial cycle in total portfolio debt flows is overstated.[12] Nonresident holdings have stagnated in many countries as a share of GDP, although they remain significant and continue to play an important role in some local markets (Figure 3.4, panel 2).

For global investors, total returns on the emerging market local currency bond index have been persistently weak over the past decade, primarily undermined by poor currency returns amid a strong dollar cycle (Figure 3.4, panel 3). Risk-adjusted returns have lagged comparable asset classes such as US high-yield corporate bonds, likely denting risk appetite for the asset class (Figure 3.4, panel 4). Returns on emerging market hard currency bonds have performed somewhat better. Net international sovereign bond issuance has continued at a robust pace, with total outstanding debt reaching over $1.4 trillion in 2025 despite outflows of around 20 percent of assets under management from dedicated emerging market hard currency funds since 2022, suggesting an increased role for crossover investors.[13]

Over the past decade, the structure of the investment base for domestic local currency debt has changed materially. For many emerging markets, the nonresident share of local currency debt peaked nearly a decade ago (Figure 3.5, panel 1), although the decline accelerated after the pandemic. The decline generally reflects a significant increase in net issuance alongside tepid inflows, rather than large outflows, outside select cases (Figure 3.5, panel 2).

[8]Asian emerging markets tend to rely on a high share of fixed-rate domestic bonds. In Latin America and Central and Eastern Europe, issuance has also included a significant amount of floating, or inflation-linked, bonds. Emerging markets like Indonesia, Malaysia, Saudi Arabia, and Türkiye issued a significant amount of sukuk in the domestic market, with their outstanding stock ranging between 13 and 47 percent of their marketable domestic debt at the end of 2024. Frontier markets like Pakistan also have sizable outstanding sukuk (11 percent). Analysis in this chapter relating to domestic marketable bonds covers sukuk.

[9]Unlike foreign concessional loans and international bonds, which are typically longer term, ranging between 10 and 30 years but contingent upon access restrictions, domestic bond maturities in emerging markets could range between 1 and 30 years. Shifting from external to domestic debt in the initial stages could therefore result in a reduction in the average maturity of the overall debt portfolio.

[10]Measured on a rolling four quarter sum.

[11]IMF staff regressed nonresident bond flows, as a percentage of the previous month's nonresident stock, against the change in the Federal Reserve's advanced economy dollar index, the VIX index, and emerging market–US policy rate differentials, with controls on commodity prices, emerging market and US inflation surprise, and emerging market and US industrial production.

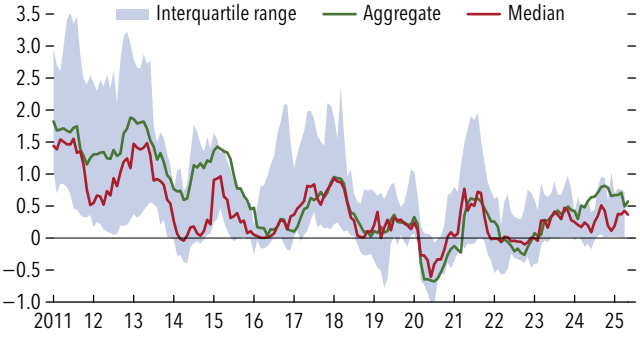
[12]Cerutti and Claessens (2024) assert that only up to about 25 percent of the variation in portfolio flows can be explained by the global financial cycle.

[13]This includes only funds reported by EPFR.

Figure 3.4. Portfolio Flows, Nonresident Holdings, and Investor Returns for Selected Emerging Market and Developing Economies

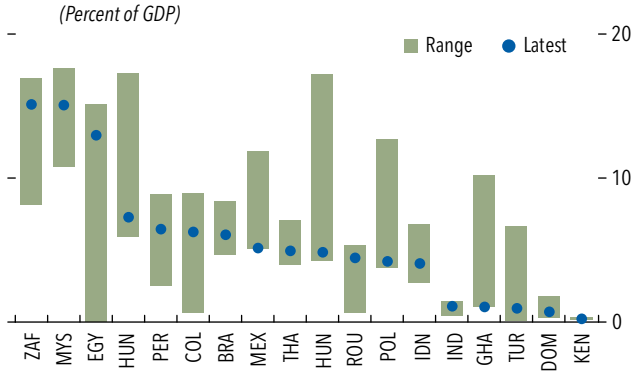
Portfolio flows to emerging markets have continued, albeit at a slower pace.

1. Nonresident Flows to Local Currency Bond Markets, Excluding China
(Percent of GDP on rolling 12-month sum)



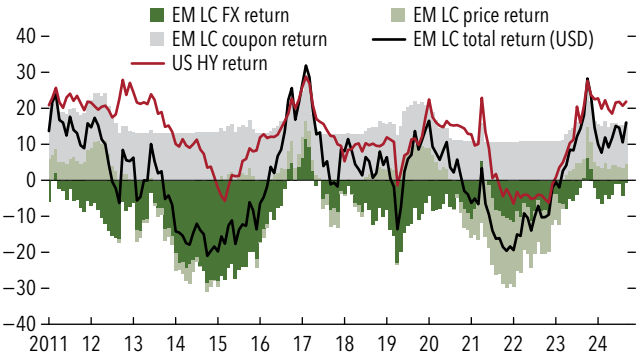
Nonresident holdings of local currency debt are below their peaks but remain significant in some cases.

2. Nonresident Holdings of Local Currency Government Bonds, 2012–Present
(Percent of GDP)



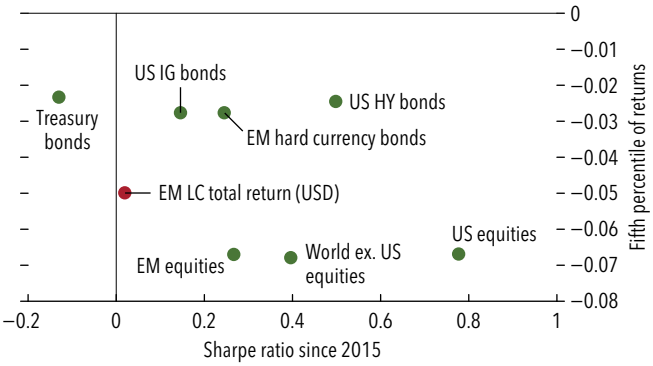
Total returns on emerging market local currency debt have been weak, undercut by currency performance.

3. Decomposition of Total Returns for Emerging Market Local Currency Debt
(Percent, two-year rolling returns, total return in US dollar terms)



Downside risks and risk-adjusted returns for emerging market local currency debt have lagged other asset classes.

4. Risk-Adjusted Returns and Downside Risk
(Fifth percentile of monthly returns since 2015; Sharpe ratio since 2015)



Sources: Bloomberg Finance L.P.; EPFR; J.P. Morgan; IMF World Economic Outlook database; IMF staff estimates; and national sources.

Note: Panels 1 and 2 include the same unbalanced panel of 17 countries, labeled in panel 2. Egypt includes only US Treasury bills; GDP is interpolated. Data labels in the figure use International Organization for Standardization (ISO) country codes. Panel 3 displays returns from the J.P. Morgan EM Government Bond Index–Global Diversified: a local currency government bond index with a maximum country weight of 10 percent. Panel 4 considers monthly returns since 2015; other asset class returns are derived from benchmark indices. In panel 4, Treasury bills are used as the risk-free rate. EM = emerging market; ex. = excluding; FX = foreign exchange; HY = high yield; IG = investment-grade; LC = local currency; USD = US dollar.

Among frontier markets, nonresident participation in domestic local currency debt markets has been more varied and at times prone to large fluctuations, although it can also be a significant part of some markets. Domestic bank ownership has generally been steady over time, indicating that bank absorption has largely kept pace with increased issuance in recent years (see the "Sovereign-Bank Nexus Has Risen in Recent Years" section), while NBFIs have increased their presence in a number of markets (Figure 3.5, panel 3).

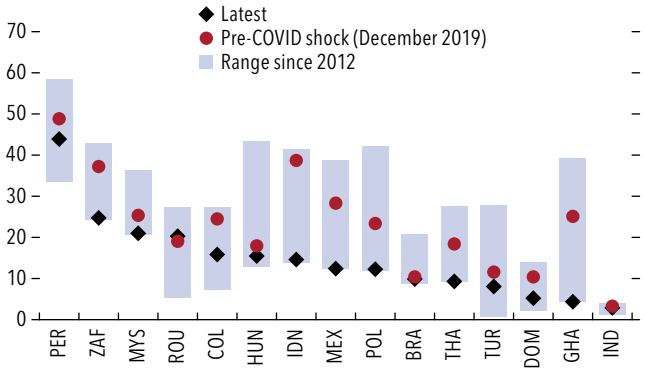
Investor Base for Some Local Currency Bond Markets Has Shifted from Nonresident to Resident

The uncertainty and risks around nonresident inflows highlight the value of a strong domestic investor

Figure 3.5. Investor Base in Selected Emerging Market Local Currency Government Bond Markets

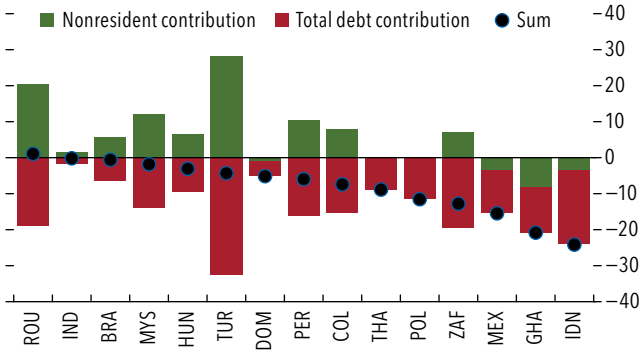
Nonresident share of LCBMs has declined and is near multiyear lows in many countries …

1. Range for Nonresident Share of LCBM since 2012
(Percent share)



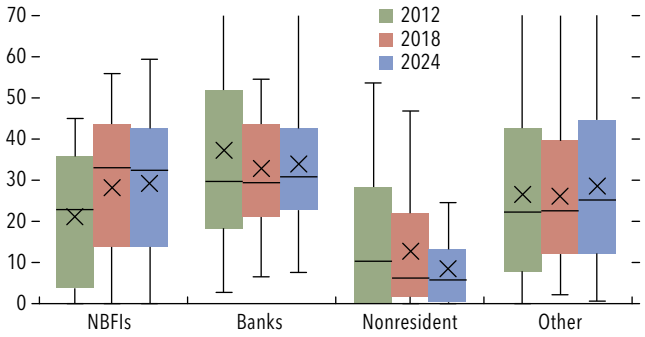
… with nonresident holdings largely failing to keep pace with higher domestic net issuance.

2. Decomposition of Change in Nonresident Share of LCBMs Since December 2019
(Percentage points, contribution of nonresident stock and total debt stock to change in nonresident share of debt)



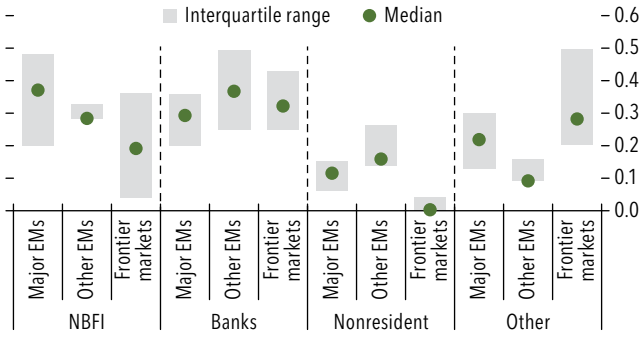
NBFIs have become a larger presence across most markets, while banks continue to be a sizable share of the investor base.

3. LCBM Investor Composition
(Percent share)



Investor composition varies considerably across countries, with larger NBFI ownership among major EMs, more banks among other EMs, and more "other" ownership among frontier markets.

4. Detailed Investor Composition, by LCBM and Country Type, 2024
(Percent share, interquartile range, median)



Sources: ASISA; central banks; EUROPACE AG/Haver Analytics; IMF Monetary and Financial Statistics; and ministries of finance.

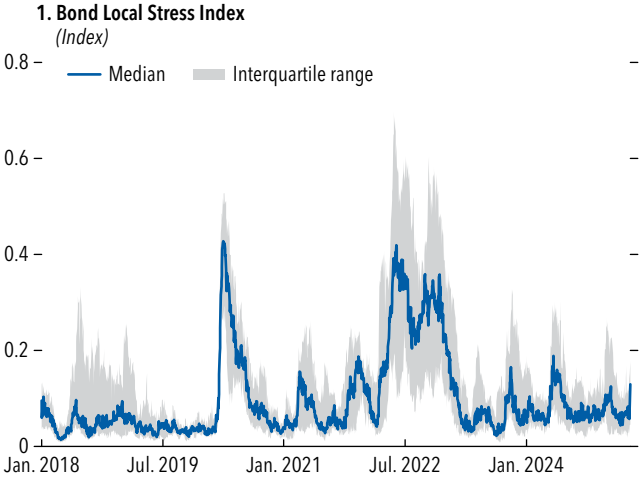
Note: Panels 3 and 4 use a baseline sample of 29 countries, of which the sample in panels 1 and 2 are included. In panels 1 and 2, India includes only central government securities. In panel 1, data on nonresident holdings for Hungary are not adjusted for repo transactions. In panel 3, × represents the average, and the horizontal line represents the median. Data labels in the figure use International Organization for Standardization (ISO) country codes. EM = emerging market; LCBM = local currency bond market; NBFI = nonbank financial institution.

base. However, investor composition varies considerably across EMDEs. Many emerging markets with more developed financial markets have been able to rely on a diverse set of resident NBFIs and banks. Emerging and frontier markets with less developed local markets have less consistent funding models. Debt absorption often involves different types of investors, with central banks, public institutions, and other private buyers playing more significant roles. Banks have a large presence in most LCBMs, although less so in Latin America, with a median ownership share of close to 30 percent across countries (Figure 3.5, panel 4). Among countries with a significant NBFI investor base,[14] the sector is primarily composed of long-term buyers such as pension funds and insurance companies (see the "Vulnerabilities: Limited Absorption Capacity and the Sovereign-Bank Nexus" section). In a limited number of countries (Brazil, Mexico, and South Africa), mutual and investment funds hold more than 10 percent of government bonds.

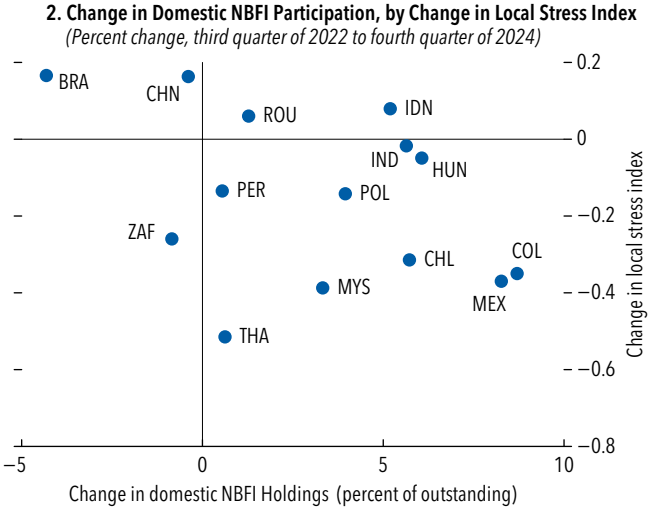
[14]Availability and consistency of granular classification of investor categories, especially among nonbank investors, varies greatly and presents analytical limitations.

Figure 3.6. Local Stress Index and the Investor Base for Local Currency Bond Markets in Emerging Markets

Emerging market LCBMs experienced some stress in early 2022 as many emerging market central banks raised rates rapidly ...



... with most emerging markets seeing an increase in domestic NBFIs' participation in the postpandemic era.



Sources: Bloomberg Finance L.P.; EUROPACE AG/Haver Analytics; and IMF staff calculations.

Note: Local stress index methodology is from the IMF's October 2020 *Global Financial Stability Report*. Variables for emerging markets are bid-ask spreads, estimated liquidation cost (Bloomberg's liquidity assessment model), term premia (the ACM model), and three-month realized volatility and asset swap spread. Data labels in the figure use International Organization for Standardization (ISO) country codes. LCBM = local currency bond market; NBFI = nonbank financial institution.

EMDE Bond Market Sensitivity to Global Shocks

Local Market Stress Has Receded in Recent Years

LCBMs in emerging markets experienced periods of heightened stress during the COVID-19 pandemic in 2020 and later in 2022 when many central banks rapidly hiked interest rates, as measured by the IMF Local Stress Index (Figure 3.6, panel 1). Greater participation by domestic NBFIs in LCBMs (as detailed in the previous section) appears to have coincided with the normalization of market functioning during the 2022 episode (Figure 3.6, panel 2). In contrast, in 2020, domestic banks absorbed the bulk of issuance, while central bank purchases were also associated with a reduction in market stress (see the October 2020 *Global Financial Stability Report*).[15] The empirical models in the next section provide more granular analysis of the stabilizing role of domestic banks and NBFIs during global shocks.

[15]Eckhold and others (2024) note that the increased presence of central banks in LCBMs after the COVID-19 shock was in line with their financial stability mandates, effectively addressing issues related to market dysfunction. However, in some EMDEs, the size of the interventions may have significantly increased risks to central banks' balance sheets, raising issues of policy solvency, operational independence, fiscal dominance, and moral hazard.

More Resident Investors Is Associated with Smaller Effect of Global Shocks on Local Bond Markets

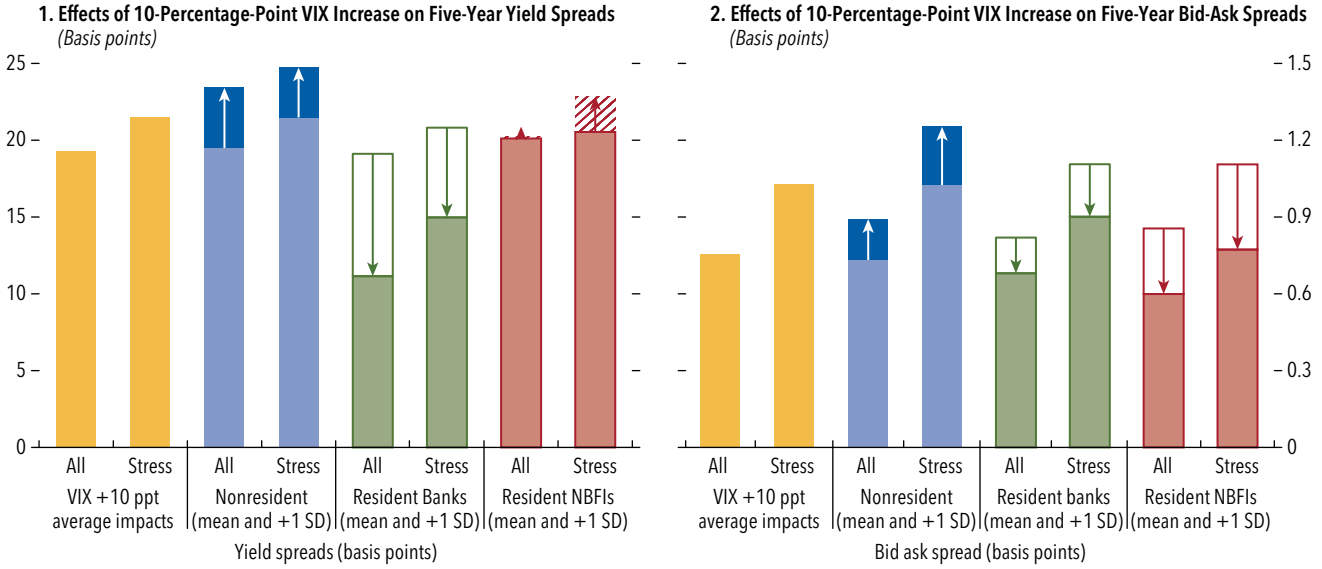
Regressions confirm that increased resident bank holdings are associated with a decline in the transmission of global shocks to LCBMs.[16] Global shocks are generally accompanied by an increase in local market strains, as measured by rising bond yields or widening bid-ask spreads (see Figure 3.7, panels 1 and 2, yellow bars). However, the presence of nonresident investors is associated with an amplification of such pressure (blue bars), and increased resident bank participation is associated with a dampening of these pressures (green bars), particularly when investor participation is above the sample average. Moreover, the attenuation effects persist and are larger in some instances during periods of financial market stress; the latter suggests that

[16]Cross-country panel regressions are used to quantify the effects of investor participation on LCBMs. The dependent variables are changes in five-year yield spreads and bid-ask spreads for 14 emerging markets, while the key independent variable is the change in the Chicago Board Options Exchange Volatility (VIX) Index, a proxy for global shocks, and its interaction with shares held by nonresident and resident investors (further segmented into banks and NBFIs), controlling for economy level macroeconomic fundamentals (see Online Annex 3.1 for data and model discussions).

Figure 3.7. Effect of Global Risk Factors on Local Currency Bond Markets in Emerging Markets and the Role of Investor Composition

Above-average nonresident (domestic bank) shares increase (reduce) the impacts of VIX on yield spreads.

Above-average nonresident (domestic) shares increase (reduce) the impact of VIX on market liquidity.



Source: IMF staff calculations.

Note: Bars indicate the estimated impact of a 10-percentage-point increase in the VIX, along with the effects of a one-standard-deviation increase in investor participation for nonresidents, resident banks, and resident NBFIs. Solid bars signal an amplification effect; hollow bars indicate attenuation. Shaded bars indicate statistical insignificance. See Online Annex 3.1 for more information. "Stress" refers to a subsample in which the VIX is above its 75th historical percentile. The sample is Brazil, China, Colombia, Hungary, India, Indonesia, Malaysia, Mexico, Peru, Poland, Romania, South Africa, Thailand, and Türkiye. 1 SD = one standard deviation; NBFIs = nonbank financial institutions; ppt = percentage point; VIX = Chicago Board Options Exchange Volatility Index.

LCBMs' response to global shocks could be disproportionately higher in stress scenarios.

More specifically, the model results show that increased nonresident ownership is accompanied by an amplification of the effects of a VIX shock on local currency bond yield spreads to the same-maturity US Treasury yield and bond bid-ask spreads.[17] A 10-percentage-point increase in the VIX is associated with a 19 basis point increase of the five-year local currency yield spread and a 0.7 basis point increase in the bid-ask spread, when nonresident ownership of local currency bonds is at the cross-country average level of 22 percent (Figure 3.7, panels 1 and 2, light blue bars under "All"). Should this ownership increase by one standard deviation (to 34 percent), the sensitivity of yield and bid-ask spreads to the increase in VIX rises, respectively, to 23 basis points and 0.9 basis point (Figure 3.7, panels 1 and 2, dark blue bars under "All"). Online Annex 3.1 contains more details on the model, results, and robustness checks.

By contrast, increased resident bank bond holdings are associated with a mitigation of the impacts of a VIX shock. A one-standard-deviation increase in ownership by resident banks from the average of 29 percent to 44 percent is associated with a dampening of the sensitivity of yield and bid-ask spreads, respectively, from 19 to 11 basis points and from 0.8 to 0.7 basis points (Figure 3.7, panels 1 and 2, left green bars under "All").

For sovereign bond investors, such effects are meaningful. For example, given the average monthly change in emerging market yield spreads of approximately 1.4 basis points, a 4 basis point increase in yield spreads—based on a 34 percent nonresident ownership and a 10-percentage-point increase in VIX—represents nearly three times the typical monthly movement. On market liquidity, given the average monthly change in bid-ask spreads of about 0.02 basis points, an impact of 0.1 to 0.2 basis points is about 5 to 10 times the average movement. These results are qualitatively

[17]These results are qualitatively consistent with the literature (for example, Ebeke and Lu 2015; Ho 2022; BIS 2024; October 2024 *Fiscal Monitor*, Chapter 1), which documents the procyclical nature of nonresident flows and the stabilizing role of banks.

similar when other proxies of global shocks, such as the Merrill Lynch Option Volatility Estimate (MOVE) Index, are used.[18]

The role of resident NBFIs is more nuanced. Increased NBFI bond holdings do not statistically alter the impact of a VIX shock on yield spreads in this sample (Figure 3.7, panel 1, left red bars), but they are associated with an attenuation of the shock's impact on bid-ask spreads (Figure 3.7, panel 2, left red bars). This lack of statistical significance in the yield spread regression may be driven by the heterogeneity of NBFIs across countries, given the diversity of their investment mandates, investment horizons, and funding stability. To disaggregate this effect, impacts were examined by region. In some economies in emerging Asia, where pension funds and insurers account for a dominant share of NBFI local currency bond holdings, increased NBFI participation is accompanied by an attenuation of the impacts of a VIX shock (Online Annex Table 3.1.4).[19] This is consistent with pension funds and insurers having more stable funding and typically being regarded as "safe hands" with long-term investment decisions. By contrast, in Latin America (notably Brazil and Mexico), where mutual funds play a larger role, a larger presence of NBFIs does not appear to have the same effect. That said, greater market participation of NBFIs does appear to help deepen market liquidity more broadly, as seen in a narrowing of bid-ask spreads.

The effect of global shocks on LCBMs appears nonlinear and tends to be larger in volatile times and for more indebted economies. Focusing on periods when the VIX is above its 75th historical percentile (Figure 3.7, panels 1 and 2, bars labeled "Stress"), a 10-percentage-point increase in the VIX raises local currency yield and bid-ask spreads much more (right yellow bars). The amplification and attenuation effects of higher nonresident and resident holdings, respectively, are also larger, particularly for market liquidity.

[18]It could be that pure time series variables (for example, monthly changes in VIX or MOVE) are picking up variations in other global conditions or shocks not considered in the panel regressions. Online Annex 3.1 shows the results of a specification whereby yearly fixed effects are added to the regression in both level and interaction terms, in addition to monthly VIX changes. The coefficients on the VIX regressors decline in magnitude in this specification, suggesting that there may indeed be other global forces that need to be considered.

[19]The regional approach was taken due to the lack of more granular data on the types of NBFIs that hold local currency bonds at an economy level.

This nonlinearity is also seen with regard to the size of government debt, whereby higher volatility would be expected in more highly indebted countries. For those high government debt economies (that is, with debt-to-GDP ratios above the sample median of 47 percent), domestic bank holdings are associated with smaller pass-throughs of global shocks, while the presence of nonresidents is accompanied by larger impacts. This highlights the importance of domestic investors in LCBMs to help weather periods of stress. That said, greater nonresident participation is also associated with narrower average yield spreads in these high-debt economies, suggesting a supportive role in reducing financing costs (see Online Annex 3.1 for more details).

Notably, the effects of global shocks and investor participation on domestic bond markets persist. Effects typically peak within one quarter before gradually receding. A larger nonresident investor share is associated with an amplification in both the magnitude and the duration of the spread response (Figure 3.8, panels 1 and 4), likely underscoring the procyclical nature of nonresident flows during risk-off episodes. By contrast, greater participation from domestic banks is accompanied by a dampening in the initial impact and an acceleration in the normalization of spreads, suggesting domestic banks' role in stabilizing and their market-making function (Figure 3.8, panels 2 and 5). For domestic resident NBFIs, although increased participation does not statistically alter the response of yield spreads to the VIX shock (Figure 3.8, panel 3), it does support market liquidity by dampening the response of bid-ask spreads in significant and durable ways, underscoring the sector's role in deepening market liquidity (Figure 3.8, panel 6).

Vulnerabilities: Limited Absorption Capacity and the Sovereign-Bank Nexus

Resident Investors' Absorption Capacity May Become More Challenged

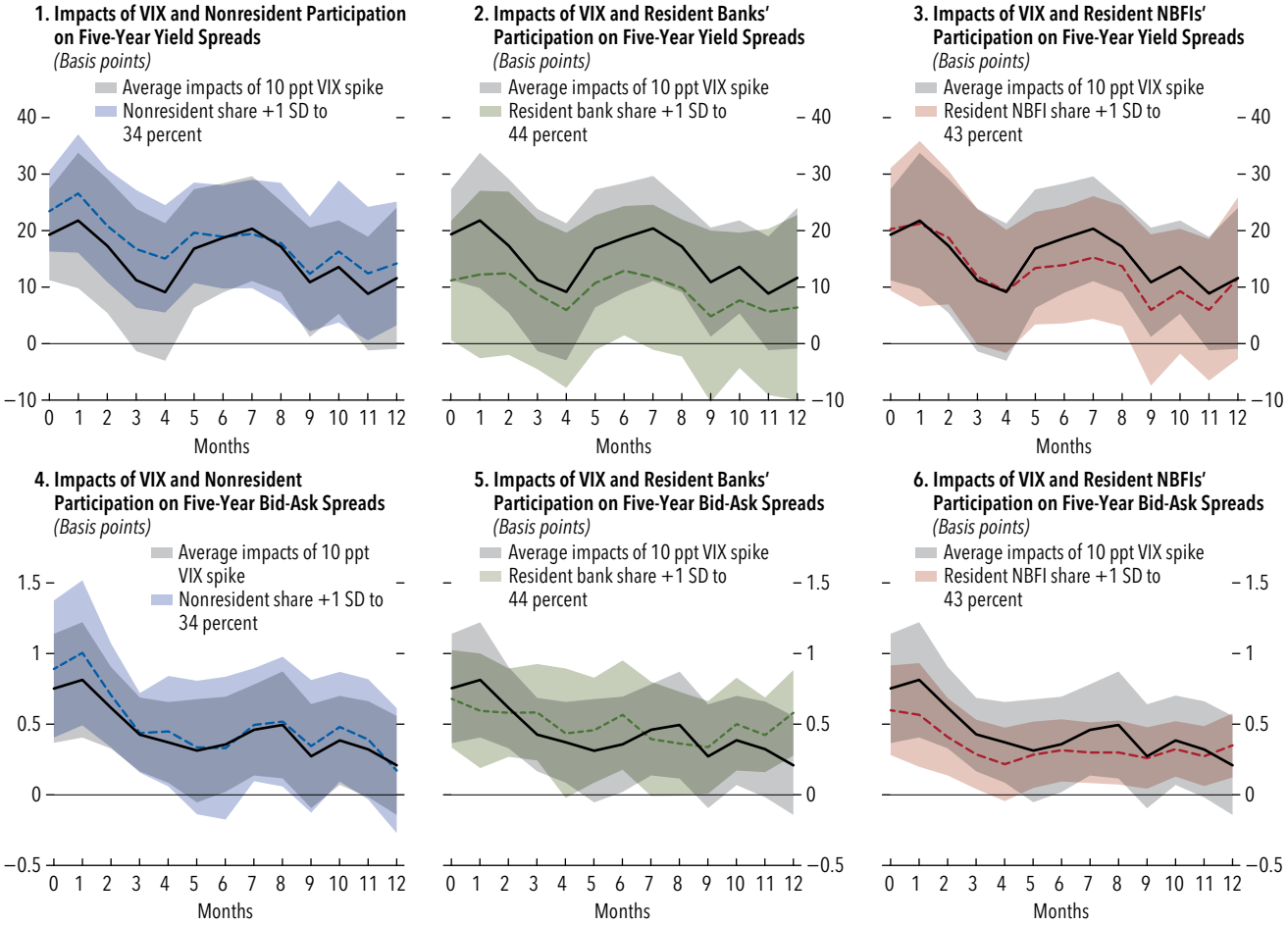
Although the regressions show that high resident participation is associated with smaller impacts of global shocks, the capacity of resident investors to continue absorbing supply might be waning. Net local currency government bond issuance continues to grow at a pace faster than prepandemic rates in several emerging markets (Figure 3.9, panel 1). Concerns that resident investors may not fully absorb rapid issuance could be a reason for the widening of local currency

Figure 3.8. Investor Composition and the Long-Term Effect of a VIX Increase on Local Currency Bond Markets in Emerging Markets

Greater nonresident participation significantly amplifies the effects of global shocks on local currency bond markets.

Greater domestic bank participation significantly mitigates the effects of global shocks on local currency bond markets.

Greater domestic NBFI participation significantly mitigates the effects of global shocks on local currency bond market liquidity.



Sources: IMF staff calculations.

Note: The figure shows the long-term impact of a 10-percentage-point increase in VIX on five-year yield spreads to US Treasuries and five-year bid-ask spreads. The black lines show the effects when nonresidents, resident banks, and resident NBFIs holdings are at their averages of 22, 29, and 31 percent, respectively. The blue, green, and red, dashed lines show the effects when holding share increases by 1 standard deviation to 34 percent for foreign institutions, 44 percent for domestic banks, and 43 percent for domestic NBFIs. The shaded areas represent 90 percent confidence intervals. The emerging markets covered in the sample are Brazil, China, Colombia, Hungary, India, Indonesia, Malaysia, Mexico, Peru, Poland, Romania, South Africa, Thailand, and Türkiye. 1 SD = 1 standard deviation; NBFIs = nonbank financial institutions; ppt = percentage point; VIX = Chicago Board Options Exchange Volatility Index.

bond yields relative to interest rate swap rates in recent months for some emerging markets—large issuance tends to be a significant driver of wider swap spreads (Figure 3.9, panel 2).

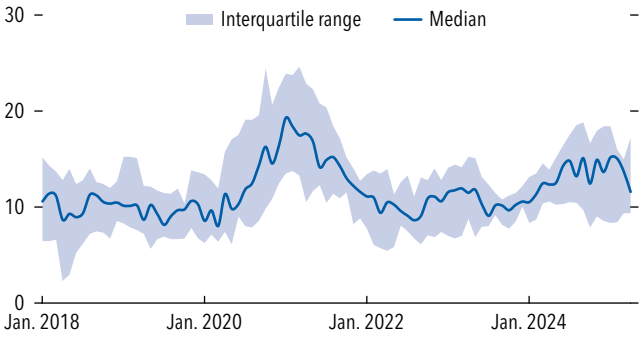
Financial assets of NBFIs in EMDEs increased by about 11 percent of GDP since 2013, as measured by an equal-weighted average across a selection of 20 economies (Figure 3.9, panel 3). However, NBFI presence in the frontier markets in this sample remains low. This suggests frontier markets will continue to rely on banks to be the main buyers of sovereign debt. On average, NBFIs in emerging and frontier markets hold roughly 22 and 40 percent of their assets in sovereign debt, respectively.[20] While there is substantial heterogeneity across jurisdictions, emerging and frontier market pension funds allocate

[20]Average NBFI sovereign debt holdings cover only jurisdictions with data available in the IMF Monetary and Financial Statistics data set.

Figure 3.9. Financial Sector Assets and Absorption Challenges in Selected Emerging Markets

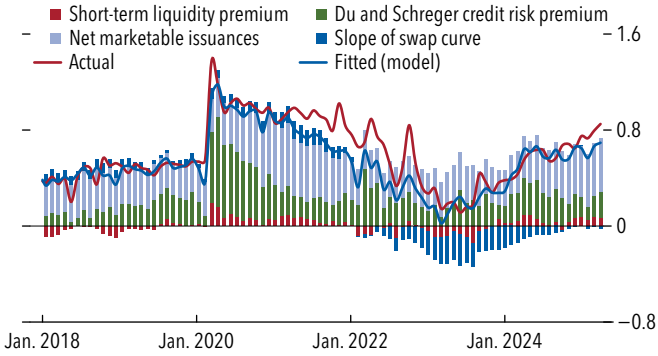
Local currency issuance has expanded faster than prepandemic ...

1. Local Currency Debt Issuance
(Year-over-year percent change)



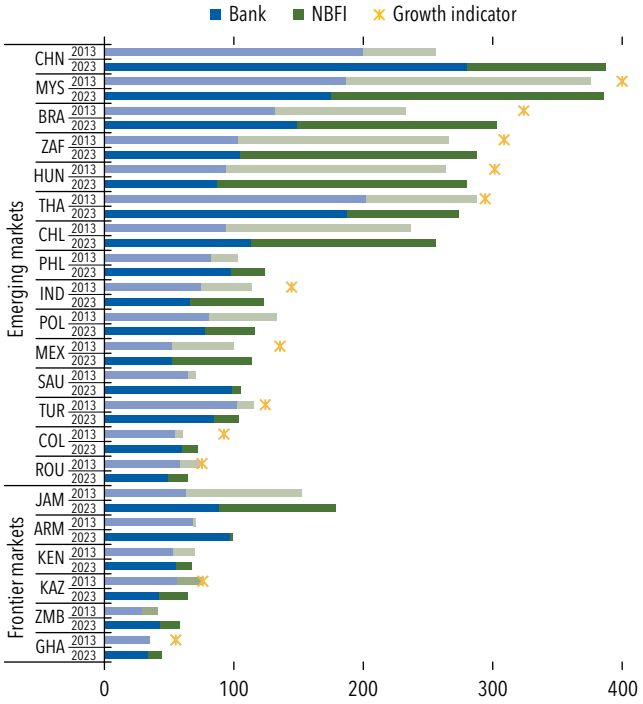
... contributing to wider spreads against swap rates.

2. Model Decomposition of Five-Year Swap Spreads
(Percent)



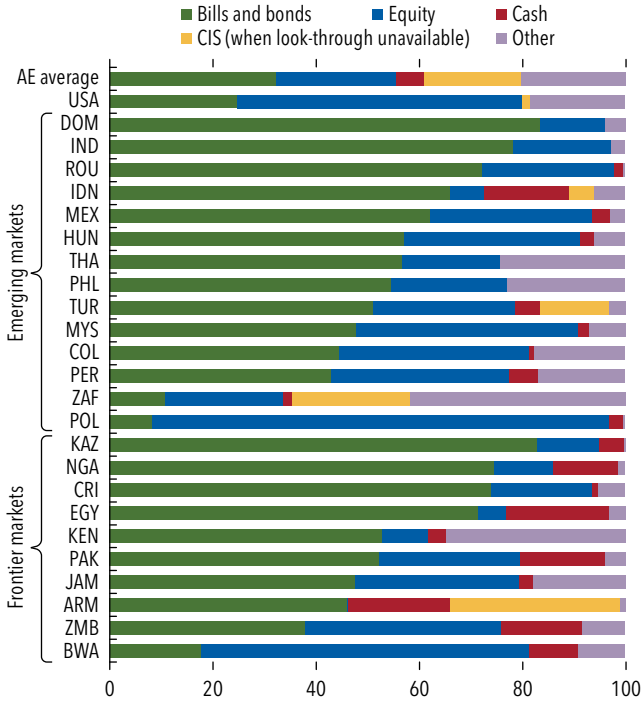
Nonbank financial institution assets are limited in most frontier markets, although they have generally expanded in most countries over the past decade.

3. Emerging and Frontier Market Financial Sector Asset Growth
(Percent of GDP)



Emerging and frontier market pension fixed-income allocations are higher than those of advanced economies.

4. Pension Fund Asset Allocation across Countries, 2024 or Latest Available
(Percent of pension fund assets)



Sources: Bloomberg Finance L.P.; Fitch Ratings; OECD 2024; IMF Monetary and Financial Statistics and World Economic Outlook database; and IMF staff calculations.

Note: Panel 1 shows growth in marketable local currency debt. In panel 2, estimates are derived from ordinary least squares regression on individual economies, with attribution to only relevant variables for individual countries. The slope of the swap curve captures issuers' incentives to adjust maturities; when the curve is steep, issuers may swap longer-term obligations for shorter-term payments by receiving fixed longer-term rates, and paying short or floating rates, thus widening the bond-swap spread. Sample emerging market economies for panels 1 and 2 are confined to Brazil, Chile, Colombia, Hungary, Indonesia, Malaysia, Mexico, Poland, Romania, and South Africa because of data availability. Panels 3 and 4 focus on the same [29]-country sample as Figure 3.5, subject to data availability. In panel 3, countries without 2013 data are represented using 2014–15 figures instead. In panel 3, × indicates that NBFI assets grew at a faster pace than that of banks between 2013 and 2023. In panel 4, "AE average" is the average pension fund asset allocation across all advanced economies. Asset allocation includes direct and indirect holdings via CIS. Where look-through is available, CIS are decomposed into underlying asset classes; otherwise, the data fall within "CIS (when look-through unavailable)." "Other" refers to real estate, loans, derivatives, and other alternative investments. Data come from both defined-benefit and defined-contribution pension plans. The figure uses OECD data for members, while data for nonmember countries are compiled from national authorities or the largest pension funds directly. Data labels in the figure use International Organization for Standardization (ISO) country codes. AE = advanced economy; CIS = collective investment schemes; NBFI = nonbank financial institution; OECD = Organisation for Economic Co-operation and Development.

roughly half their assets to fixed-income securities[21] (Figure 3.9, panel 4), materially higher than the average advanced economy fixed-income allocation of 30 percent. In many cases, high fixed-income allocations reflect that investable alternatives are limited and that allocations face regulatory constraints. For frontier markets in particular, small NBFI sectors and high shares of assets held in sovereign debt indicate that some countries could already be in the state of high domestic debt and low absorption capacity.

Sovereign-Bank Nexus Has Risen in Recent Years

Although large resident banks' presence in LCBMs helps mitigate the impact of global shocks, excessive government bond holdings by banks can exacerbate the sovereign-bank nexus. The nexus involves three channels through which stress in one sector can propagate to the others (Chapter 2, April 2022 *Global Financial Stability Report*). The first channel is through direct exposure, specifically the impact of banks' realized losses on large government debt holdings during a fiscal crisis. The second relates to the safety net channel, whereby contingent liabilities from implicit government guarantees of the banking system occur. The third involves the macroeconomic channel, whereby weakening economic fundamentals simultaneously undermines sovereign creditworthiness and erode banks' asset quality through rising defaults and slower credit growth.

Banking and sovereign debt crises have frequently occurred at the same time or in quick succession (Chapter 2, April 2022 *Global Financial Stability Report*). Sovereign-bank linkages can trigger self-fulfilling crises: As fears of a sovereign default rise, banks with significant exposure to the sovereign are seen as riskier. Furthermore, the failure of a domestic bank heavily invested in domestic sovereign debt may result in wider spillovers to corporate lending and other sectors of the economy.

In the context of financial repression, moral suasion has been recognized as a key reason for domestic banks to hold government securities (Deghi and others 2022).[22] These pressures are particularly pronounced for state-owned banks, which generally significantly increase their holdings of sovereign debt during periods of fiscal stress or sovereign distress. Furthermore, among state-owned banks, those with weaker capitalization levels typically increase their sovereign exposures the most, which could erode their vulnerable capital base and lead to the mispricing of sovereign debt and crowding out of private sector credit (see the "Both Strengths and Weaknesses of LCBMs Are Relevant in Emerging and Frontier Markets" section).

Since 2014, the rapid growth in local currency debt issuance has coincided with a growing sovereign-bank nexus, as reflected in the increase in banks' government debt holdings as a share of their total assets (Figure 3.10, panel 1). This may have been driven by a combination of liquidity management needs, attractive yields—especially in high interest rate environments—and, in some cases, moral suasion from authorities. Economies with higher debt burdens tend to have a greater concentration of government bonds on their banks' balance sheets (Figure 3.10, panel 2). The nexus is particularly pronounced in emerging and frontier markets with smaller and less developed capital markets, where domestic banks often serve as the primary vehicle for absorbing sovereign debt (Chapter 2, April 2022 *Global Financial Stability Report*).[23]

As a result of the sovereign-bank nexus, default risks of sovereigns and banks tend to move closely together, and there is potential for a two-way causality. From the perspective of international credit rating agencies, banks' credit ratings are generally constrained by the sovereign's "country ceiling,"[24] with exceptions granted only in rare cases. The cap reflects rating agencies' transfer and convertibility criteria, which assess the risk that a government might impose capital or exchange controls that restrict payments to nonresident creditors for debt service. Consequently, a sovereign downgrade often triggers ratings downgrades for these "bound firms" that are subject to the cap (Chapter 2, April 2022 *Global Financial Stability Report*).

The close interconnectedness between sovereign risk and banking sector risk is evident from the co-movements of implied default risk. Observations from monthly data since 2010 indicate that during

[21]"Fixed-income securities" include both local and foreign currency instruments, encompassing domestic and foreign government and corporate issuers.

[22]Financial repression may manifest through various channels, including the directed placement of government securities with state-owned banks, public enterprises, or government-controlled institutional investors or the administrative setting of government security yields at below-market levels (IMF 2021).

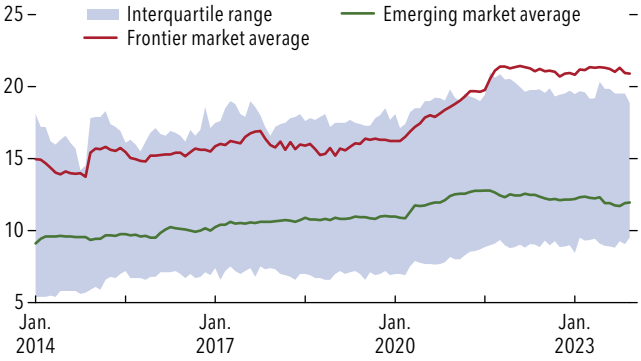
[23]However, there is significant heterogeneity across economies. Rising holdings of local currency debt by domestic banks has occurred in jurisdictions with both deteriorating and improving capital adequacy ratios, suggesting that government debt accumulation by banks could be driven by considerations other than capital.

[24]Country ceilings are not credit ratings but serve as a reference that can limit the foreign currency ratings assigned to entities within a sovereign's jurisdiction.

Figure 3.10. Recent Trends in Sovereign-Bank Nexus Risks in Selected Emerging Market and Developing Economies

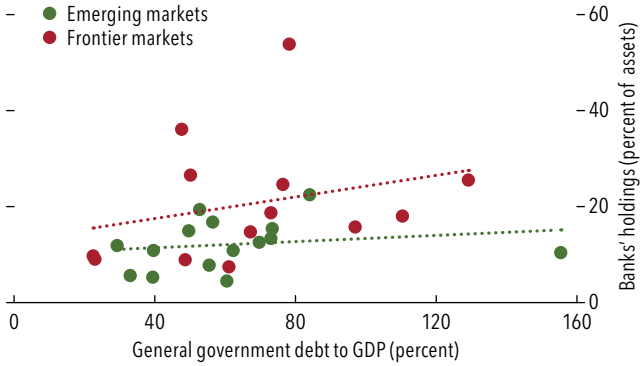
The strength of the nexus has increased since the onset of the COVID-19 pandemic.

1. Evolution of Banks' Holdings of Domestic Government Debt
(Percent of total assets)



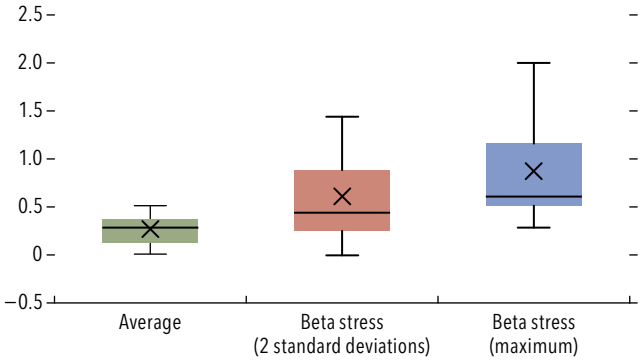
Economies with a larger debt burden tend to see their banking sectors hold more sovereign debt.

2. Banks' Sovereign Debt Holdings, by Sovereign Debt to GDP for 2023
(Percent)



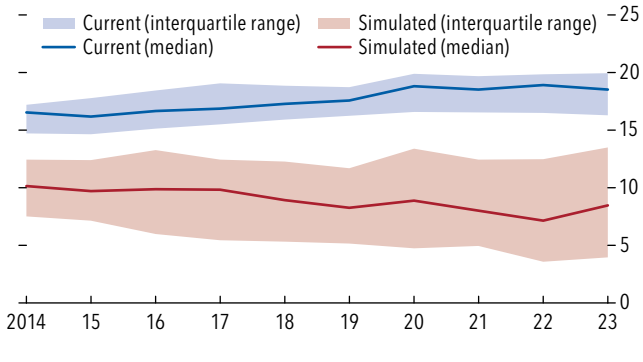
A shock to sovereign implied default risk could affect banks' expected default frequency, especially during stressed periods.

3. Sensitivity of Emerging Market Banks' Expected Default Frequency to Sovereign Implied Risk
(Beta, January 2010 to June 2025)



Banks in emerging market and developing economies could face capital shortfalls in the event of a hypothetical domestic debt-restructuring scenario.

4. Reported and Simulated Capital Ratio in Emerging Market and Developing Economies
(Percent of risk-weighted assets)



Sources: Bloomberg Finance L.P.; Moody's; IMF Financial Soundness Indicators and Public Sector–Bank Nexus databases; and IMF staff calculations.

Note: For panels 1, 2, and 4, the emerging markets are Argentina, Brazil, Chile, Colombia, Dominican Republic, Hungary, Indonesia, Malaysia, Mexico, the Philippines, Peru, Poland, South Africa, Thailand, and Türkiye, while frontier markets are Algeria, Botswana, Costa Rica, Ghana, Jordan, Kazakhstan, Kenya, Namibia, Nigeria, Pakistan, Sri Lanka, Uganda, and Zambia. In panel 2, data are from the end of 2023 or latest available. In panel 3, sensitivity is on two-year rolling monthly observation for emerging markets only, because of data availability constraints. Stressed data points represent observations that exceed 2 standard deviations, while the maximum bars indicate the highest beta values recorded during the period. Sovereign implied default risk is from major emerging markets' five-year credit default swaps. In panel 4, the scenario analysis assumes a 40 percent haircut on government bond holdings.

stress periods, a one-standard-deviation increase in emerging market sovereigns' implied default probability rate is associated with around half of a standard deviation rise in banks' expected default frequency. This effect also appears to intensify during periods of extreme stress, reaching near a one-for-one relationship, on average, for emerging markets (Figure 3.10, panel 3).

Using aggregated bank data from 15 emerging markets and 13 frontier markets, a hypothetical domestic debt restructuring event[25] that haircuts local currency bond prices by 40 percent results in more than half of banking sectors seeing regulatory capital ratios fall

[25]The data sets used for the hypothetical effect of domestic debt restructuring consist of the ratio of the domestic banking sector's holdings to domestic government securities, risk-weighted assets, and regulatory capital from the IMF's Financial Soundness Indicators and Public Sector–Bank Nexus databases.

below the critical 10 percent threshold[26] (Figure 3.10, panel 4). A reverse simulation shows that most banking systems with more than 20 percent of assets in domestic government bonds are unlikely to withstand haircuts of 30 percent or more without breaching the 10 percent regulatory threshold.[27] While the analysis likely underestimates the extent of a sovereign distress event (credit risk) by not considering other amplification channels, the accounting effect alone highlights the vulnerability of the banking systems in this sample of economies.[28] Such fragilities could also be exposed during a noncredit risk event, such as an upward shift in local yield curves (market risk) or forced sales during dash-for-cash episodes (liquidity risk).

Deepening Local Currency Bond Markets to Enhance Financial Stability

Developing LCBMs requires not only sound macroeconomic fundamentals and adequate domestic financial savings but also a strong policy framework and robust financial market structure to channel these financial savings into a well-functioning local market.

The IMF–World Bank Local Currency Bond Market Framework (2021) provides a structured, data-driven approach to identify market development gaps, assess absorption capacity constraints, and guide sequencing of reforms to develop LCBMs. This framework evaluates the stage of development of four core building blocks—money markets, primary market issuance, secondary markets, and investor base—alongside two supporting blocks related to financial market infrastructure (FMI) and legal-regulatory systems, against the backdrop of macroeconomic and institutional enabling conditions.

This section applies the LCBM framework to assess market structure in 37 EMDEs with sizable LCBMs, drawing on available data and recent technical assistance experience. Economies are grouped as "major emerging markets," "other emerging markets," and "frontier markets" on the basis of the relative size of their LCBM and availability of benchmark bonds.[29] While findings provide actionable insight, data gaps limit comparability across dimensions, and results may not generalize to EMDEs where macrofinancial or market structures differ materially.

Both Strengths and Weaknesses of LCBMs Are Relevant in Emerging and Frontier Markets

Macroeconomic and institutional conditions vary widely across EMDEs, shaping the depth and resilience of LCBMs. Major emerging markets with more developed LCBMs tend to exhibit stronger economic fundamentals, including deeper domestic institutional investor bases and lower financial dollarization. These features help anchor investor confidence, lower sovereign risk premia, and support the formation of a yield curve (Figure 3.11, panel 1). In contrast, frontier markets often display weaker and more volatile macroeconomic conditions, limiting their capacity to price risk and sustain demand for long-term local currency bonds. Financial systems in these markets remain bank dominated, with concentrated investor holdings and limited intermediation. These structural weaknesses, when combined with heavy reliance on local currency debt issuance, can heighten the risk of financial repression, lead to crowding out of private sector credit, and increase financial stability risks (Chapter 2, April 2022 *Global Financial Stability Report*).

Flexible exchange rate regimes and inflation-targeting frameworks have supported bond market development in many major emerging markets by anchoring expectations and reducing volatility (Figure 3.11, panel 2).[30] In contrast, frontier markets often face higher inflation volatility, reflecting weaker policy anchors and the absence of credible inflation targeting frameworks alongside greater exchange rate pass-through. The exchange rate can affect bond yields in two ways. In some economies, central banks adjust policy rates to stabilize the exchange rate, and this directly moves short-term yields. In others, expectations of depreciation affect yields indirectly by lifting short-term rates through the inflation channel and pushing up long-term yields

[26]Minimum capital ratios vary between countries, and the 10 percent of risk-weighted assets threshold assumed may exceed the minimum ratio required in some jurisdictions. However, a decline below this threshold is likely to trigger corrective supervisory action (Barrail, Dehmej, and Wezel, forthcoming).

[27]Unlike the fixed losses-given-default assumption of 40 percent used in the simulation presented in Figure 3.10, panel 4, a reverse simulation calculates the maximum losses that banks can sustain on their local currency government bond holdings while still maintaining regulatory ratios above the 10 percent threshold, based on their initial capital ratio.

[28]Countries that undertook domestic debt restructuring in recent years were also characterized by a limited capacity of their domestic banking systems to transmit shocks to the wider economy (IMF 2021).

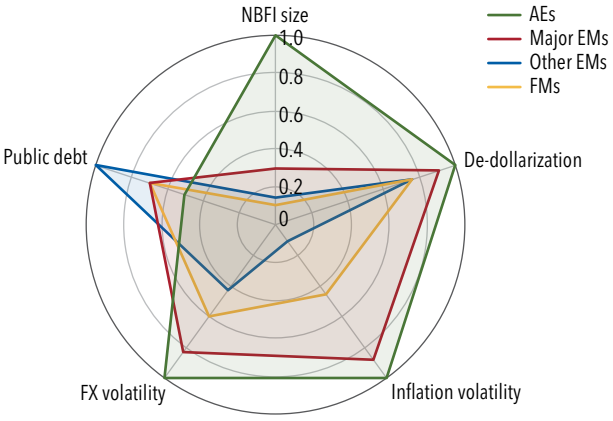
[29]The list of economy groupings is indicated in Online Annex 3.2.

[30]As seen in many EMDEs, inflation-targeting frameworks do not automatically guarantee a reliable yield curve. The operating framework should include well-defined goals, robust decision making, a coherent strategy, operational procedures, and effective communication.

Figure 3.11. Building Blocks of Local Currency Bond Market Resilience in Emerging Market and Developing Economies

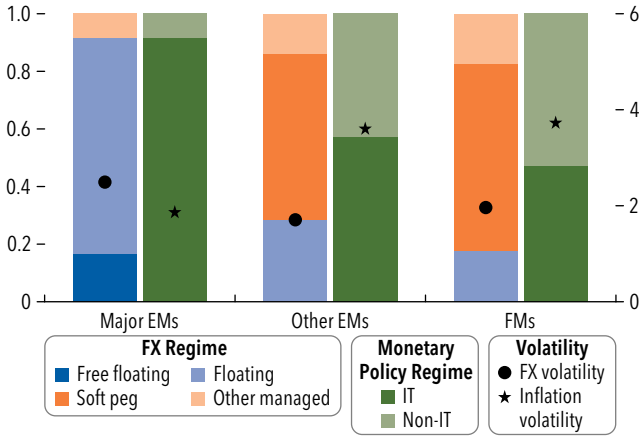
Major emerging markets typically display better macroeconomic fundamentals.

1. Macroeconomic Preconditions, by Economy Group
(Normalized index: 0 = weakest; 1 = strongest)



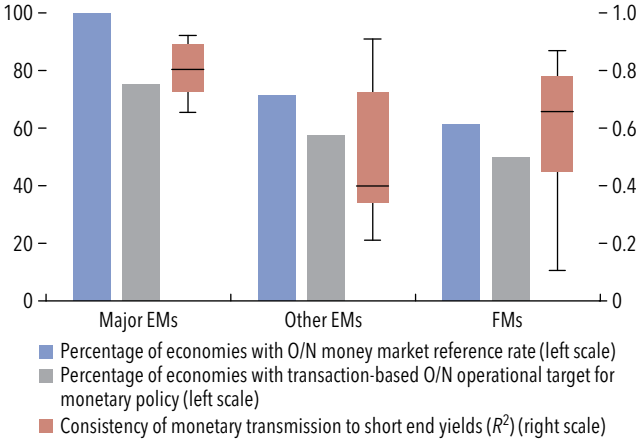
Credible inflation targeting and FX regimes experience lower macroeconomic volatility conducive for LCBMs.

2. Monetary Policy Regimes in EMDEs, End of 2024
(Share of economies, left scale; median FX/inflation volatility (five-year rolling window of standard deviation)



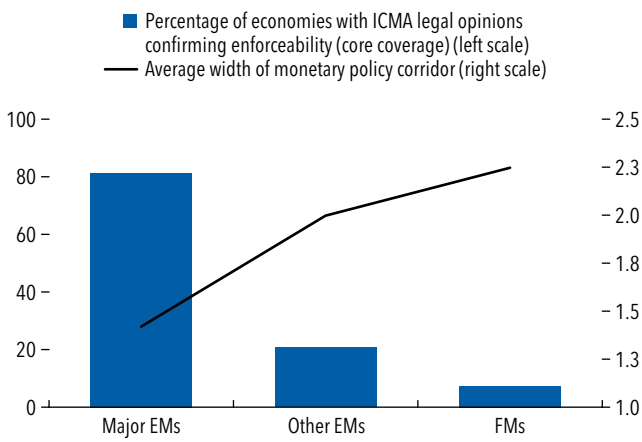
Interest rate-based monetary policy framework anchors the short end of the yield curve through better monetary policy transmission.

3. Monetary Policy Frameworks in EMDEs
(Share of economies, left scale; coefficient of determination, right scale)



Many EMDEs operate with wide interest rate corridors and weak repo contract enforceability, constraining money market depth.

4. Policy Corridor Widths and Repo Contract Enforceability in EMDEs
(Percent)



(Figure continues next page)

through higher currency risk and term premia. In practice, emerging markets are more often shaped by the direct policy rate channel, reflecting the stronger credibility of inflation-targeting frameworks, while frontier markets are more exposed to the risk premia channel. Both fixed and flexible exchange rate regimes can support bond market development if credible, but flexible regimes reduce the possibility of abrupt currency depreciation. The latter also generate demand for hedging instruments, which can help deepen LCBMs.

Foundational money market features remain uneven across EMDEs. Major emerging markets typically operate under interest-rate-based frameworks—often linked to formal inflation-targeting regimes in which the policy rate and transaction-based overnight reference rate anchor the short end of the yield curve (Figure 3.11, panel 3).[31] Many frontier markets rely on indicative or administratively set overnight rates, with weak links to underlying trades. Even where

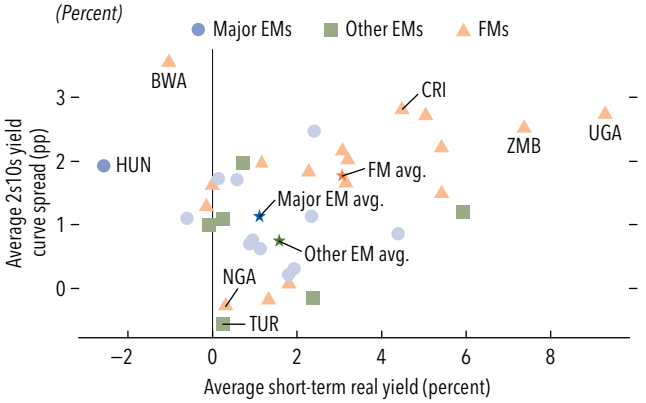
[31]Achieving reliable reference rates for market participants would require the rates to be based on transparent computation methodology and provisions for periods when markets are volatile or under stress (EBRD 2016). For detailed guidance on the transition to an interest-based monetary policy framework, refer to IMF (2022).

Figure 3.11. Building Blocks of Local Currency Bond Market Resilience in Emerging Market and Developing Economies *(continued)*

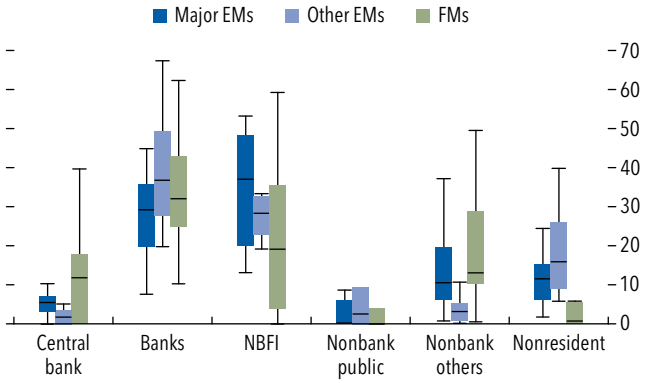
Real bond yields in some FMs, indicate a high-risk premium signaling underlying stability risks in less-developed LCBMs.

Fiscal dominance is more pronounced in FMs, while sovereign-bank nexus and nonresident exposures are higher in other emerging markets than in peers.

5. Short-Term Real Yields on Government Bonds and Yield Curve Slope in EMDEs
(Percent)



6. Investor Base Composition of LCBMs in EMDEs, by Economy Group, 2024
(Percent)



Sources: Bloomberg Finance L.P.; Fitch Ratings; IMF Annual Report on Exchange Arrangements and Exchange Restrictions, International Financial Statistics, and Monetary Operations and Instruments Database; ICMA, national sources; and IMF World Economic Outlook database.

Note: Panel 1 covers 46 countries: 13 AEs and 33 EMDEs (12 major EMs, 5 other EMs, and 16 FMs). De-dollarization is 100 minus the share of FX deposits in total deposits (set at 100 percent for AEs); the prior year was used if the latest was unavailable; source: Fitch). The NBFI size is proxied by 2023 NBFI assets (percentage of GDP). FX and inflation volatilities are five-year rolling standard deviations to the end of 2024. Public debt is general government gross debt (percentage of GDP to the end of 2024). Indicators are normalized from 0 (weakest) to 1 (strongest), and group averages represent each classification. Panel 2 is based on 36 EMDEs (12 major EMs, 7 other EMs, and 17 FMs). Data is based on IMF staff calculations using national sources for monetary policy regimes; IMF Annual Report on Exchange Arrangements and Exchange Restrictions (AREAER); IMF World Economic Outlook database; Bloomberg; and Haver. FX and inflation volatility are five-year rolling averages of standard deviations, calculated through end-2024. Panel 3 shows the share of jurisdictions with ICMA GMRA legal opinions confirming enforceability for core counterparties. Coverage may exclude some entities. R^2 values are from country-level regressions of annual changes in short-end government bond yields (one-year maturities, or the two-year where one-year is unavailable) on annual changes in policy rates, 2016–25. Annual observations are constructed from monthly data averaged to yearly values. R^2 indicates the share of variation in yields explained by policy rate changes, that is, the consistency of monetary transmission. The sample covers 34 countries: 12 major EMs, 7 other EMs, and 15 FMs. In panel 5, the dots show medians of annual averages over 2015–25. Real yields use the one-year maturity (or the two-year maturities if the one-year maturity is unavailable). The *y*-axis shows the spread between 10-year and 2-year government bond yields. Outliers are defined as countries above the 95th percentile or below the fifth percentile on either metric across the full sample (major EMs, other EMs, FMs). Group averages are shown as stars. Data labels use International Organization for Standardization (ISO) country codes. Panel 6 covers 29 EMDEs (12 major EMs, 4 other EMs, 13 FMs). AEs = advanced economies; avg. = average; EMs = emerging markets; EMDEs = emerging market and developing economy; FMs = frontier markets; FX = foreign exchange; GMRA = Global Master Repurchase Agreement; ICMA = International Capital Markets Association; IT = inflation targeting; LCBM = local currency bond market; NBFI = nonbank financial institutional investors, excluding public nonbank investors and other unclassified investors; non-IT = non–inflation targeting; pp = percentage point.

transaction-based rates exist, they are rarely used as operational targets, limiting price formation and weakening monetary policy transmission.

A deep and liquid repo market fosters interbank and secondary bond market trading, anchors the short-term rate, and enhances financial stability by reducing counterparty risk. Repo markets in EMDEs lag advanced economies in scale and market depth.[32] A key constraint for the interbank repo market is collateral availability driven by a high degree of held-to-maturity portfolios. At the same time, high haircuts, and operational limits on collateral circulation, reduce incentives to trade repos.[33] While many emerging markets have adopted standardized legal documentation supported by legal opinions, such as the Global Master Repurchase Agreement, legal uncertainties around collateral enforcement and netting remain in several jurisdictions. Restrictions on short selling apply and fragmented settlement infrastructure further limit the potential of interbank repo markets (Figure 3.11, panel 4). Gaps are larger in frontier

[32]Some major emerging markets have developed a deep repo market. In Brazil, the central bank's dominant role in liquidity management drives repo activity. Interbank repo activity in Mexico is a key driver of bond market liquidity.

[33]Another constraint is a divergence in collateral policy between central bank repos and interbank repos. The haircut determined should consider the maturity, quality, scarcity value, and price volatility of the underlying collateral; the term of the repo; and the creditworthiness of the customer.

markets, where liquidity management is primarily quantity based, secured interbank markets are nascent, and repo transactions are mostly confined to central bank operations.

Most EMDEs are price takers in the primary market, paying positive real yields. Major emerging markets generally sustain upward-sloping yield curves with moderate positive real yields, consistent with macroeconomic fundamentals, functioning price signals, and broader investor participation (Figure 3.11, panel 5). In contrast, many frontier and smaller emerging markets record persistently high real yields and steep yield curves, often reflecting elevated term premia from inflation uncertainty, debt sustainability concerns, or liquidity and supply constraints. A few economies display flat or negative real yields, which may reflect financial repression, shallow investor participation, or credible disinflation episodes that compress term premia. The relationship between the slope of yield curve and bank exposure to public sector debt is more negative in frontier markets.[34] Similarly, the negative real rate of returns during 2002–22 of pension funds, which invest heavily in government bonds, have been more pronounced in frontier markets relative to emerging markets.[35] Taken together, these persistent patterns over the past decade point to broader structural differences across EMDEs, shaped by market depth, the credibility of macroeconomic frameworks, and the scale of marketable debt in circulation.

Sovereign-bank links and exposure to nonresident holders are more pronounced in other emerging markets than in major peers, highlighting relatively higher vulnerability to funding shocks, rollover risks, and the amplification of sovereign stress through the banking system. In contrast, major emerging markets have larger NBFI participation, reflecting deeper financial systems and institutional investor bases. Pension reforms adopted in some Latin American economies, which include variants of a funded, privately managed, and defined-contribution personal accounts retirement system, have had a positive effect on the development of LCBM markets (Roldos 2004).[36] Bond holdings by banks are shaped by liquidity coverage requirements[37] and preferential sovereign risk weights, but in some economies also through reserve or statutory liquidity requirements, which may result in financial repression. Central banks in frontier markets hold a significant share of government securities, reflecting shallow investor bases and potentially indicating elements of fiscal dominance, in addition to high sovereign-bank nexus (Figure 3.11, panel 6). Where prudential limits on foreign exchange (FX) positions, caps on outward investment, and few alternative assets prevail, bank portfolios display strong "home bias" and concentration in LCBMs.

The availability of benchmark bonds is critical to the formation of deep and liquid markets. Annual borrowing plans anchored on credible medium-term fiscal frameworks support predictable issuance and reduce risks of fiscal dominance. Major emerging markets maintain yield curve formation through predictable issuance, frequent reopening, and regular liability management operations, resulting in benchmark issues typically above $1 billion, that support market liquidity and index inclusion (Figure 3.12, panel 1). Many emerging markets have strengthened government cash flow forecasting and established cash buffers to support buyback operations, while switch operations are usually cash neutral. Most other emerging markets issue in similar large sizes but with less consistency across tenors. In contrast, many frontier markets issue smaller, irregular amounts, with mixed levels of transparency and weak auction discipline.[38]

Primary dealer (PD) frameworks in frontier markets tend to prioritize auction participation over secondary market-making activities (Figure 3.12, panel 2). High auction coverage, often above advanced economy norms, supports near-term funding but can strengthen the sovereign-bank nexus, as banks end up backstopping funding risks. In frontier markets, PD frameworks rarely include binding obligations for

[34]Based on a sample of 25 economies, with 14 emerging markets and 11 frontier markets. Bank exposure to the public sector includes claims on the central government, local governments, and state-owned enterprises, using data from Barrail, Dehmej, and Wezel (forthcoming). The correlation between bank exposure and the slope of the yield curve is –0.34 for frontier markets and –0.09 for emerging markets, indicating that frontier markets with larger bank holdings of public debt tend to exhibit flatter or inverted yield curves.

[35]Based on a sample of 10 frontier markets and 16 emerging markets, the average real rate of return during 2002–22 was found to be negative for 50 percent and 6 percent of these groups, respectively (OECD 2024).

[36]Many frontier markets and some emerging markets rely on a pay-as-you-go system. Therefore, pension assets remain shallow. Pension assets of 21 emerging markets averaged at 17 percent of GDP in 2024, mainly contributed by Latin American emerging markets with an average of 27 percent, while for 11 frontier markets, pension assets stood at 14 percent (OECD 2024).

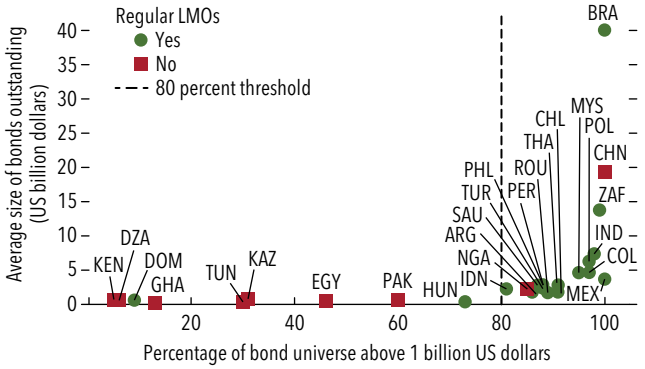
[37]Given widespread bond illiquidity in many EMDEs, government bonds are treated as high-quality liquid assets because they are eligible as collateral for central bank liquidity facilities.

[38]"Domestic Debt Securities Heat Map: 2023," World Bank, August 12, 2024, https://www.worldbank.org/en/data/interactive/2024/08/12/domestic-debt-securities-heatmap.

Figure 3.12. Local Currency Bond Market Development in Emerging Market and Developing Economies

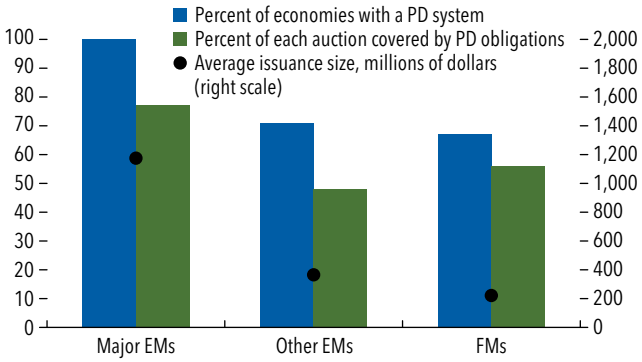
Regular use of liability management operations supports building sizable benchmark bonds.

1. Issuance of Benchmark Bonds and Regular Liability Management Operations



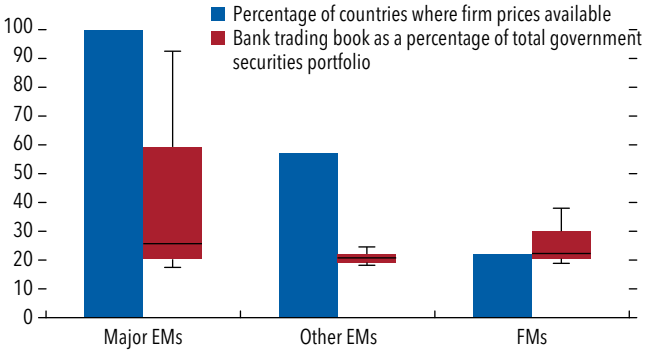
PD systems support auction demand but often expose structural weaknesses and deepen the sovereign-bank nexus.

2. PD System Support in Primary Markets
(Percent, left scale; millions of dollars, right scale)



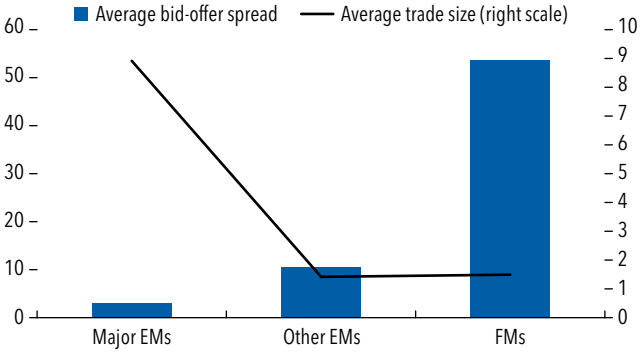
Quoting obligations for PDs and trading book activity remain limited, impeding bond market liquidity.

3. PD System Support in Secondary Markets
(Percent)



Bid-ask spreads and trade sizes reflect weaker liquidity in less developed LCBMs.

4. Secondary Market Liquidity and Average Trade Size
(Basis points, left scale; billions of US dollars, right scale)



Sources: Bank of America; Bloomberg Finance L.P.; Deutsche Bank; JPMorgan; national sources; S&P Capital IQ; and IMF staff calculations.

Note: Panel 1 reports the average size of "benchmark bonds" based on the total outstanding bond universe and the number of outstanding bonds. The share of the bond universe above US $1 billion equivalent is calculated from Bloomberg data, using exchange rates as of August 31, 2025. Excluded from the figure are countries with 0 percent of local currency government bonds outstanding above US $1 billion equivalent: Armenia, Botswana, Costa Rica, Jamaica, Jordan, Namibia, Sri Lanka, Uganda, Vietnam, and Zambia. Panel 2 reflects staff assessments of PD frameworks in 37 EMDEs. Actual PD primary market coverage can be below 100 percent, but PDs are often required to underwrite the full auction if demand is insufficient. The figure reports stated coverage obligations, not the 100 percent fallback underwriting. Panel 3 shows the number of countries with firm secondary price obligations, based on 37 EMDEs, including those without PD systems. The analysis of trading books is based on banking system averages for 2020–24 covering 24 EMDEs, measured as the share of total government securities portfolios, assuming most trading book assets are sovereign securities. Panel 4 presents estimated bid-offer spreads and trade sizes for benchmark bonds in 26 EMDEs, based on typical market conditions. Data labels in the figure use International Organization for Standardization (ISO) country codes. Data are as of August 31, 2025. EMDEs = emerging market and developing economies; LMO = liability management operation; PD = primary dealer.

firm "two-way" quotes in the secondary market and often lack supporting infrastructure for PDs. This leaves few dealers with active trading books[39] and creates shallow secondary market liquidity (Figure 3.12, panel 3). Even in major emerging markets, trading books are significantly smaller than in many developed markets, impeding market liquidity. PDs in most emerging markets include large global banks, which help broaden market access, introduce high-frequency trading strategies, contribute to market liquidity, and potentially narrow bid-ask spreads. However, these PDs can also act as conduits of increased sensitivity during periods of market stress and sudden shifts in global risk sentiment.

[39]Shallow market depth, limited hedging instruments, and a predominance of buy-and-hold investors reduce trading incentives, while regulatory costs and weak institutional support further constrain dealer activity.

High bid-offer spreads and weak pre- and post-trade price transparency in frontier markets underscore persistent secondary market inefficiencies. Wide spreads reflect small trade sizes, lack of benchmark securities, and concentrated buy-and-hold strategies, all of which limit secondary market turnover (Figure 3.12, panel 4). Developing electronic interdealer platforms, ensuring pre- and post-trade transparency, and publishing a reliable yield curve have spurred trading activity in major emerging markets.[40] Some emerging markets (for example, India, Malaysia, and South Africa) exhibit bid-offer spreads comparable with advanced economies, but market liquidity is often concentrated in a few select benchmark bonds.

Supporting market architecture (for example, hedging instruments, investor communication, and FMI) shapes investor participation and market resilience. Hedging markets supported by well-functioning money markets enable both domestic and nonresident investors to manage their exposure to interest rate and exchange rate risk, lifting their participation and liquidity. Emerging markets with deeper hedging markets have been able to weather shocks to liquidity conditions better than others during observed stress events (BIS 2024). Although hedging markets, mostly FX derivatives, continued to grow in emerging markets, they have not always kept pace with issuance.[41] Formal investor relations programs, timely transparency, and financial literacy programs have been effective in harnessing household and corporate investments, including through mutual fund products covering government bonds.

While many EMDEs have relatively open capital accounts, the absence of well-functioning LCBM and FX markets can deter direct nonresident investment.[42] Establishing links with international central securities depositories provides secure, standardized, cross-border access to domestic securities, reducing operational and legal barriers to entry.[43]

Efficient FMI[44] enables safe, low-cost settlement and supports investor confidence during stress. While most emerging markets have sound FMI in place,[45] FMI in frontier markets remains uneven, and operational gaps can amplify liquidity pressures and raise risk premia by disrupting settlement and deterring investor participation, particularly during periods of market stress. Central clearing of repos, essential in reducing counterparty risks, is present only in a few major emerging markets, enhancing market liquidity by reducing risk-based trading costs and mitigating investor uncertainty during market stress.[46]

Policy Recommendations

Strengthening LCBMs is a crucial step toward reducing sovereign debt vulnerabilities and enhancing financial resilience, alongside macroeconomic and fiscal stability. Where macrofinancial conditions are weak, rapid LCBM expansion that outpaces investor demand can increase term premia, destabilize debt dynamics, and increase financial stability risks. Economies should therefore prioritize macroeconomic stability and strong fiscal anchors that safeguard public debt sustainability. Mobilizing adequate financial savings and channeling them into LCBMs is key to strengthening absorption capacity and supporting LCBM development.

Reform priorities should focus on strengthening market absorption capacity by developing the domestic institutional investor base. Deepening LCBMs must be seen within broader financial sector development. National pension system design, including shifts from

[40]Electronic interdealer platforms for government bonds were developed with public sector support in markets like Brazil, India, and South Africa. Malaysia, Mexico, and Thailand implemented dissemination portals to enhance pre- and post-trade transparency in over-the-counter markets to increase transparency.

[41]FX derivatives are generally more prevalent in emerging markets, but Brazil, Chile, Mexico, and South Africa are among those with fairly balanced hedging markets.

[42]Nonetheless, foreign investors may gain synthetic exposure via derivatives or proxies, for example, interest rate swaps (see also Chapter 1), total return swaps, and credit-linked notes, which still influence yields and exchange rates. These instruments are attractive for nonresident investors who are either reluctant or not allowed by their mandates to open an account in a local clearing and settlement infrastructure. Offshore over-the-counter cross-currency swaps or nondeliverable forwards can also provide nonresident investors access to local bond markets.

[43]For example, the introduction of international central securities depositories to Russia in 2013 allowed foreign investors to switch from proxy instruments to direct holding of government bonds. Issuance of credit-linked notes disappeared within two months, and liquidity of government bonds surpassed that of cross-currency swaps (Lu and Yakovlev 2017).

[44]FMIs provide services for LCBMs that facilitate the clearing, settlement, and recording of financial transactions, including the transfer of securities and funds.

[45]As of January 2025, large emerging markets have self-attested to implementing the Committee on Payments and Market Infrastructures and International Organization of Securities Commissions (CPMI-IOSCO) Principles for FMIs, although self-assessment does not imply full compliance or guarantee sound operation in practice (Bank for International Settlements, Committee on Payments and Market Infrastructures, and International Organization of Securities Commissions, Update to the Level 1 online tracker, information as of January 2025).

[46]Brazil, China, and India have implemented a central clearing counterparty for clearing of repos.

Table 3.1. Policies to Improve Resilience and Develop Deeper Local Currency Bond Markets

Country Type	Primary Market Focus	Investor Strategy	Money and Secondary Market
Major emerging markets	Consolidate benchmark issuance to reduce fragmentation	Deepen institutional investor base by promoting long-term savings institutions	Expand use of interbank repos and encourage larger trading books for primary dealers and banks Establish central clearing counterparties where appropriate
Other emerging markets	Accelerate benchmark bond issuance and initiate regular liability management operations	Develop domestic institutional investor base to deepen local currency issuance	Improve the primary dealer framework Encourage the use of repo contracts based on internationally recognized master agreements
Frontier markets	Build benchmark bonds, establish issuance rules and auction discipline, and facilitate greater coordination with monetary operation Strengthen government cash management	Reduce overreliance on banks and nurture nascent institutional investors	Implement interest rate–based monetary policy and encourage use of money market reference rates and repos

Source: Authors.

pay-as-you-go system to funded systems, reflects social choices and takes time to implement. Complementary funded arrangements, such as mandatory contributions to privately managed plans or provident funds can support LCBM development (BIS 2019). Additional instruments, including pension-like insurance products, can help mobilize financial savings. Tax incentives can encourage participation in voluntary pension systems, complementary programs, and life insurance products. As the institutional investor base matures, gradually relaxing mandatory investment requirements and adopting "prudent person rules" would reduce overexposure to government securities and broaden investment allocation choices. Finally, greater financialization of household savings through collective investment schemes requires strong legal and regulatory frameworks to protect investors and a neutral tax regime that avoids double taxation (IMF and World Bank 2021).

Shallow liquidity and concentrated investor bases can amplify spillovers from shocks, underscoring the need to deepen market liquidity. Strengthening LCBMs reinforces the Integrated Policy Framework[47] by improving monetary transmission, reducing currency mismatches, and mitigating capital flow volatility. To this end, the IMF and World Bank are scaling up capacity development on money markets, FMI, and bond market reforms, integrating these priorities into surveillance and IMF-supported lending programs to ensure durable progress (Box 3.2). Table 3.1 summarizes the key priorities in LCBM development for different groupings of EMDEs.

To improve LCBMs, appropriate steps should be taken across all the key LCBM building blocks:

a. Sound monetary policy frameworks and deeper money markets are vital (IMF 2015). FMs should adopt and operationalize interest rate–based frameworks using credible policy instruments and transaction-based reference rates. Developing repo markets is critical for robust money markets (IMF and World Bank 2021). Major emerging markets can further expand collateral reuse and term repos as well as facilitate access to NBFIs. Mitigating systemic risks from repo markets during market stress episodes will be critical, supported by consistent application of haircuts and margin requirements, enhanced transparency, and other risk management controls.
b. Issuance strategies should emphasize predictability and transparency to sustain demand and build benchmark bonds to enhance market liquidity. Aligning issuance with monetary operations can stabilize systemic liquidity and reduce issuance volatility. To build a robust yield curve, frontier markets should focus on a limited set of standardized benchmarks, while emerging markets can consolidate liquidity through greater reopenings and regular use of liability management operations.
c. Effective primary dealer frameworks and trading infrastructure remain essential for market liquidity (Adrian, Fleming, and Nikolaou 2025). PD

[47]The Integrated Policy Framework has been developed by the IMF to guide the joint use of monetary, exchange rate, macroprudential, and capital flow management policies by considering policy trade-offs to manage external shocks, along with economy-specific frictions such as shallow markets, currency mismatches, foreign investors' limited appetite for emerging markets' local currency debt, and poorly anchored inflation expectations.

obligations should be balanced and tailored to the stage of market development, from indicative quotes in frontier markets to firm quoting obligations in major emerging markets. PD frameworks in frontier markets must balance privileges with obligations, while in major emerging markets the emphasis should shift to enforcing quoting obligations and participation thresholds for PDs.

d. Policymakers should strengthen market microstructure and systemic safeguards to enhance bond market resilience. Trading activity can be improved in less liquid markets through implementation of electronic interdealer trading platforms and enhanced market transparency through publication of reliable yield curves and better dissemination of pre- and post-trade information. In major emerging markets where repo activity has grown significantly, more robust clearing arrangements may be required. Establishment of central clearing counterparty could reduce counterparty risks and dealer balance sheet strain (Adrian, Nikolaou, and Wu 2025).
e. Prudential treatment of sovereign bonds should avoid reinforcing the sovereign-bank nexus. This can be done by gradually reducing incentives for held-to-maturity holdings and aligning liquidity coverage requirements with global standards. Policymakers should also remove legal and structural impediments to secondary market trading of government securities and support the development of hedging instruments, thereby enabling banks to hold more securities in trading books and improving market liquidity.
f. Domestic sovereign issuance should incorporate sound contractual provisions for debt restructurings. For economies, particularly at a nascent stage of LCBM development, it can be useful for domestic bonds to include provisions relating to the negotiation process and restructuring mechanics to facilitate orderly and predictable resolution if restructuring becomes necessary.
g. Investor base diversification to strengthen market resilience should be a long-term priority and contingent upon broader financial sector development supported by coherent financial sector policies. Pension reforms and greater penetration of the life insurance sector would be critical to expanding the institutional investor base in many EMDEs. Over the medium term, institutional investor demand could be enhanced in frontier markets by aligning investment mandates, solvency rules, and tax treatment. Clear and regular issuance communication can help anchor investor expectations. Large emerging markets can build on pension reforms and promote pooled investment vehicles like mutual funds and voluntary pensions.

Nonresident participation in LCBMs should be carefully considered, particularly in nascent frontier markets.

a. The appropriate degree of nonresident participation in a domestic bond market is difficult to establish, so both benefits and risks must be considered. Where adequate levels of financial development have not been attained and where financial market structure—particularly FX and money markets—are shallow and macroeconomic stability is weak, a gradual and phased approach may be useful to open participation of foreign investment in the LCBM. Reliance on short-term debt instruments should be phased out. These can increase rollover risks and amplify volatility during stress, particularly when they offer high real yields. Improving FX hedging tools in emerging markets can attract longer-term, noncarry-trade flows, thereby mitigating capital outflows.
b. Managing high nonresident participation requires strong institutions, especially in the context of an integrated global financial environment. Appropriate FMI systems should support systematic monitoring of nonresident holdings and flows. Periodic assessments of risks associated with nonresident holdings are important for formulating appropriate policy responses and building buffers. As an exception, where macroeconomic and prudential tools are insufficient, temporary and narrowly targeted capital flow management measures may need to be considered in line with the IMF's Institutional View (IMF 2012) to reduce excessive vulnerabilities with nonresident flows.

Box 3.1. Local Currency Debt and Domestic Investors in the Corporate Sector in Emerging Market and Developing Economies

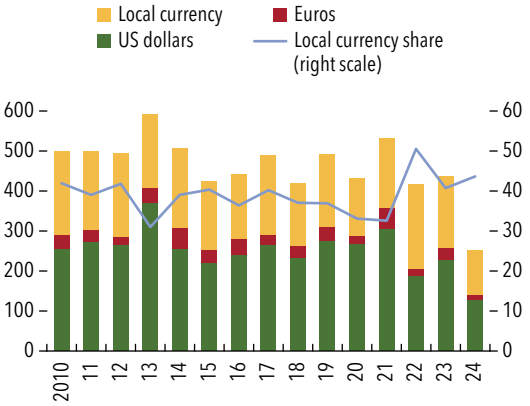
Emerging market corporate debt has not risen strongly in recent years, in contrast with emerging market and developing economy (EMDE) sovereign debt. Aggregation of deal-level data for EMDE (excluding China) corporate bonds and loans shows that issuance has declined significantly from 2022 through the third quarter of 2024, as the postpandemic surge in issuance in 2021 waned (Figure 3.1.1, panel 1). Bonds comprise around 80 percent of emerging market corporate debt issuance, having outgrown loans since the global financial crisis.

This box was prepared by Jason Wu based on the work of Jiayi Li.

Figure 3.1.1. Corporate Debt in Emerging Markets

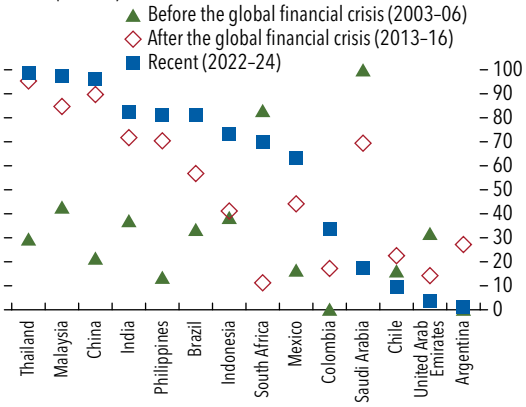
Issuance has declined, but local currency debt has gained ground ...

1. Emerging Market Corporate Debt Issuance
(Billions of dollars, left scale, percent share, right scale)



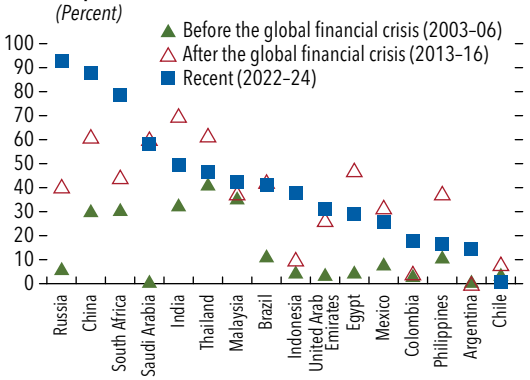
... especially local currency bonds ...

2. Share of Local Currency Bonds in Total Emerging Market Corporate Bonds
(Percent)



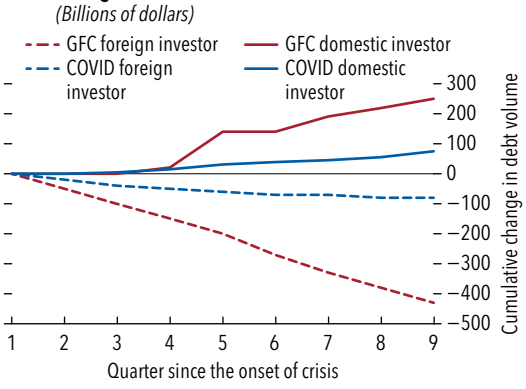
... and, to a lesser extent, corporate loans.

3. Share of Local Currency Loans in Total Emerging Market Corporate Loans
(Percent)



Domestic investors entered emerging market corporate debt markets during past crises.

4. Cumulative Emerging Market Corporate Loan Issuance during the Global Financial Crisis and COVID-19
(Billions of dollars)



Sources: Dealogic; and IMF staff calculations.

Note: Data are aggregations from almost 90,000 bond and loan issuances for about 14,000 nonfinancial corporations in emerging market and developing economies from 2000 to the third quarter of 2004. All shares are computed on a volume basis rather than on a deal count basis. GFC = global financial crisis.

Box 3.1 *(continued)*

However, mirroring the sovereign bond market, the local currency share of emerging market corporate debt (by volume) has increased in recent years, having jumped from 34 percent in 2021 to almost 45 percent in the third quarter of 2024 (Figure 3.1.1, panel 1, blue line). Across jurisdictions, corporations from emerging Asia were especially active in issuing local currency bonds. For example, on a volume basis, Malaysian and Thai corporations have almost exclusively issued bonds in local currency in the 2022 to 2024 period (Figure 3.1.1, panel 2). The same trend is observed qualitatively for corporate loans (Figure 3.1.1, panel 3), although the growth of local currency loans may be somewhat attenuated by EMDE corporations having bolstered borrowing relationships with banks headquartered in foreign jurisdictions that prefer foreign currency loans.

Domestic investors in corporate debt may have played a stabilizing role when markets were under strain. Following the onsets of the global financial crisis and the pandemic, domestic investors have increased their holdings of EMDEs' corporate loans, boosting debt volumes, while nonresident investors have retraced their holdings notably (Figure 3.2.1, panel 4). This finding resonates with the empirical findings of this chapter: Higher domestic investor shares in EMDE sovereign bonds attenuate the adverse impacts of global shocks.

Box 3.2. Case Studies of Local Currency Bond Market Reforms in Emerging Market and Developing Economies Supported by IMF Technical Assistance

Deepening Local Currency Bond Markets and Mitigating Sovereign Debt Portfolio Risks in Georgia

Supported by a joint programmatic technical assistance on debt management (2018–22), Georgia—a highly dollarized economy—made significant progress in deepening its domestic bond market and reducing foreign exchange risk. While government debt averaged around 40 percent of GDP between 2018 and 2024, the share of domestic marketable debt increased with tenors extending up to 11 years, lowering the foreign exchange debt share from 81 to 70 percent.

Benchmark issuance underpinned market growth, while liability management operations, including a 2024 switch operation, raised the average time to maturity for domestic securities from 2.6 years to 3.5 years (2018–24). A 2021 Eurobond ensured refinancing and preserved international market access.

The Ministry of Finance, with the support of the National Bank of Georgia, launched the Market Makers Pilot Program in 2020. This program improved price discovery on benchmark bonds (approximately $1.2 billion), although banks remain dominant investors. Transparency enhancements aim to attract more nonbank and foreign investors, while diversification remains a priority.

This box was prepared by Arindam Roy and Bryan Gurhy.

Laying the Foundations for a Robust Local Currency Bond Market in Bangladesh

Confronted with higher financing needs and falling concessional flows, Bangladesh identified local currency bond market development as a policy priority. A joint IMF–World Bank local currency bond market diagnostic mission in 2023 identified major distortions—including interest rate caps, central bank participation in auctions, and reliance on costly nonmarketable domestic debt in the form of national savings certificates; all of which hampered price discovery and market development.

Foundational reforms followed, supported by conditionality in the context of the IMF program. Conditions included transition to an interest rate–based monetary policy framework, removal of the lending rate cap, elimination of central bank government bond purchases, quarterly issuance calendars, publication of a daily secondary market yield curve, and expanded access through over-the-counter and stock exchange trading. National savings certificate rates were linked to market yields from 2025 to reduce market fragmentation. Follow-up technical assistance guided reforms on primary dealer framework guidelines in June 2025, removing underwriting obligations and emphasizing market making activities by primary dealers.

These efforts doubled the nominal stock of marketable bonds between 2019 and 2024, with benchmark bonds exceeding $500 million, securing FTSE Frontier Emerging Market Bond Index inclusion. While this may attract foreign investment, reducing the sovereign-bank nexus remains a key challenge

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