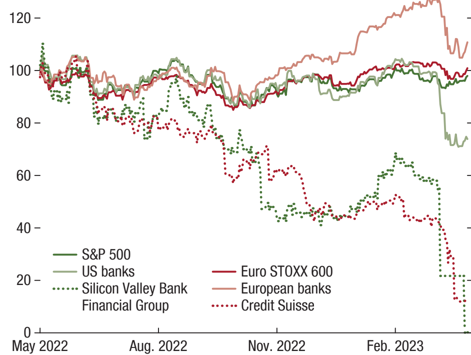
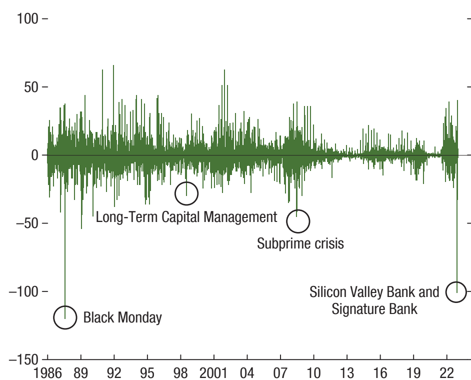
EXECUTIVE SUMMARY

Figure ES.1. Performance of US and European Equities
(Prices, indexed, May 1, 2022 = 100)



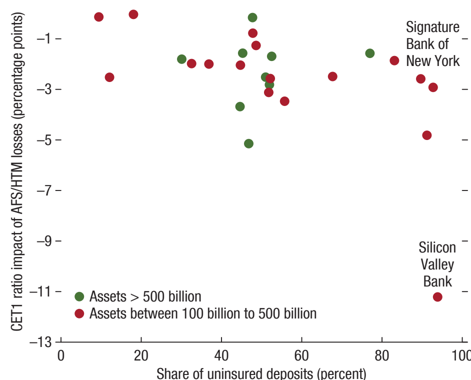
Source: Bloomberg Finance L.P.

Figure ES.2. US Near-Term Policy Rate Expectations
(Basis points)



Sources: Bloomberg Finance L.P.; and IMF staff calculations.
Note: Estimated using near-term money market forward with a maturity of around 9 months.

Figure ES.3. Share of Uninsured Deposits versus Equity Impact of Mark-to-Market Losses of Select US Banks
(Percentage points of CET1 ratio)



Sources: Federal Reserve; and IMF staff calculations.
Note: AFS = Available for Sale; CET1 = Common Equity Tier 1; HTM = Held to Maturity.

A Financial System Tested by Higher Inflation and Interest Rates

Financial stability risks have risen significantly as the resilience of the global financial system has faced a number of severe tests since the October 2022 *Global Financial Stability Report*. In the aftermath of the global financial crisis, amid extremely low interest rates, compressed volatility, and ample liquidity, market participants increased their exposures to liquidity, duration, and credit risk, often employing financial leverage to boost returns—vulnerabilities repeatedly flagged in previous issues of the *Global Financial Stability Report*.

The sudden failures of Silicon Valley Bank and Signature Bank in the United States, and the loss of market confidence in Credit Suisse, a global systemically important bank (GSIB) in Europe, have been a powerful reminder of the challenges posed by the interaction between tighter monetary and financial conditions and the buildup in vulnerabilities. Amplified by new technologies and the rapid spread of information through social media, what initially appeared to be isolated events in the US banking sector quickly spread to banks and financial markets across the world, causing a sell-off of risk assets (Figure ES.1). It also led to a significant repricing of monetary policy rate expectations, with magnitude and scale comparable to that of Black Monday in 1987 (Figure ES.2).

The forceful response by policymakers to stem systemic risks reduced market anxiety. In the United States, bank regulators took steps to guarantee uninsured deposits at the two failed institutions and to provide liquidity through a new Bank Term Funding Program to prevent further bank runs. In Switzerland, the Swiss National Bank provided emergency liquidity support to Credit Suisse, which was then taken over by UBS in a state-supported acquisition. But market sentiment remains fragile, and strains are still evident across a number of institutions and markets, as investors reassess the fundamental health of the financial system.

The fundamental question confronting market participants and policymakers is whether these recent events are a harbinger of more systemic stress that will test the resilience of the global financial system—a canary in the coal mine—or simply the isolated manifestation of challenges from tighter monetary and financial conditions after more than a decade of ample liquidity. While there is little doubt that the regulatory changes implemented since the global financial crisis, especially at the largest banks, have made the financial system generally more resilient, concerns remain about vulnerabilities that may be hidden, not just at banks but also at nonbank financial intermediaries (NBFIs).

In the United States, investors' fears about losses on interest rate–sensitive assets led to the banking sell-off, especially for banks with concentrated deposit bases and large mark-to-market losses (Figure ES.3). In Europe, the impact was greatest on banks that trade at significant discounts to their book values, in which there are long-term concerns regarding profitability and their ability to raise capital.

Emerging market banks appear to have avoided significant losses in their securities portfolios so far, while deposit funding has been stable. IMF staff estimates that the impact on regulatory ratios of unrealized losses in held-to-maturity portfolios for the median bank in Europe, Japan, and emerging markets would likely be modest, although the impact for some other banks could be material (Figure ES.4). That said, many countries have low levels of deposit insurance coverage, and emerging market banks generally have assets with lower credit quality than in advanced economies. In addition, emerging market banks generally play a larger role in the financial system than in advanced economies, so the consequences of banking sector distress could be more severe.

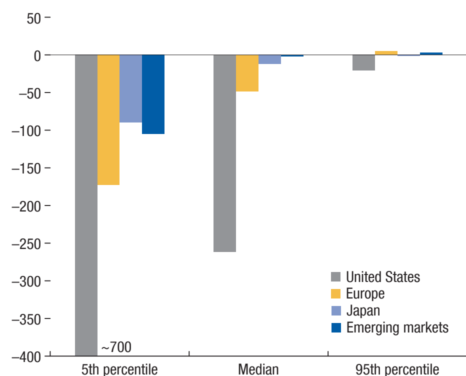
These events have been a reminder that funding can disappear rapidly amid widespread loss of confidence. Shifting patterns of deposits across different institutions could raise funding costs for banks which could restrict their ability to provide credit to the economy. These concerns are particularly pertinent for US regional banks. With the recent fall in bank equity prices, lending capacity of US banks could decline by almost 1 percent in the coming year, reducing real GDP by 44 basis points, all else being equal.

The Challenges Ahead

The emergence of stress in financial markets is complicating the task of central banks at a time when inflationary pressures are proving more persistent than anticipated. Before the recent stress episodes, interest rates in advanced economies had risen sharply and were more aligned with central bank communications about the need to keep monetary policy restrictive for longer. Since then, investors have sharply repriced downward the expected path of monetary policy in advanced economies (Figure ES.5). They now anticipate central banks to begin easing monetary policy well in advance of what was previously forecast. Inflation, however, has remained uncomfortably well above target.

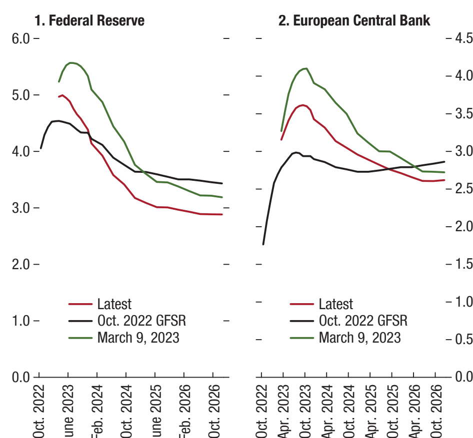
After having significantly increased their securities holdings during the pandemic, central banks have started to reduce their balance sheets. This normalization process could pose challenges for sovereign debt markets at a time when liquidity is generally poor, debt levels are high, and additional supply of sovereign debt will have to be absorbed by private investors. In the United States, for example, net issuance of the US Treasury securities is projected to increase in 2023 and 2024, while quantitative

Figure ES.4. Equity Impact of Unrealized Losses on Held-to-Maturity Securities for a Select Sample of Banks
(Basis points of CET1 ratio)



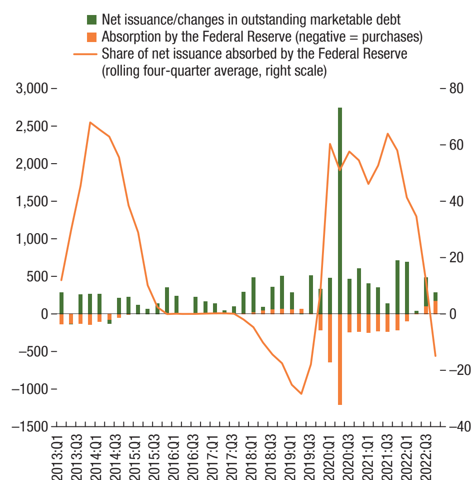
Sources: SNL Financials; and IMF staff calculations.
Note: CET1 = Common Equity Tier 1.

Figure ES.5. Policy Rate Expectations
(Percent)



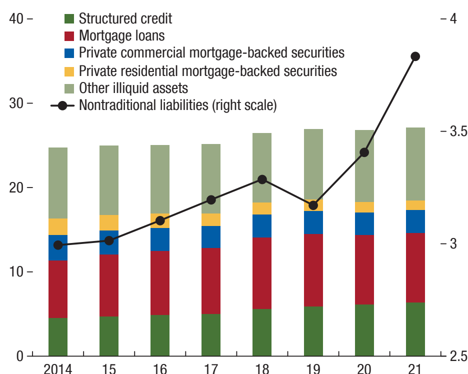
Sources: Bloomberg Finance L.P.; European Central Bank; national authorities; US Federal Reserve; and IMF staff calculations.
Note: GFSR = Global Financial Stability Report.

Figure ES.6. Net Issuance of Treasury Debt and Absorption by the US Federal Reserve
(Billions of US dollars, left scale; percent, right scale)



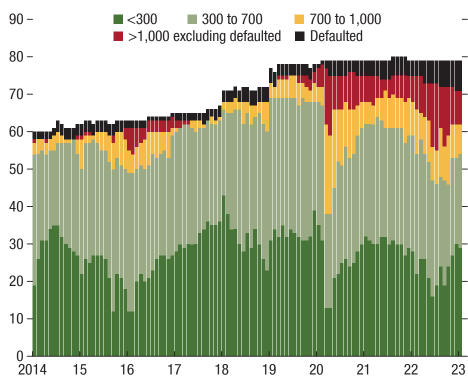
Sources: US Federal Reserve System Open Market Account data; US Flow of Funds; US Monthly Statistics of Public Debt; and IMF staff calculations.

Figure ES.7. US Insurers Illiquid Assets/Share of Nontraditional Liabilities
(Percent)



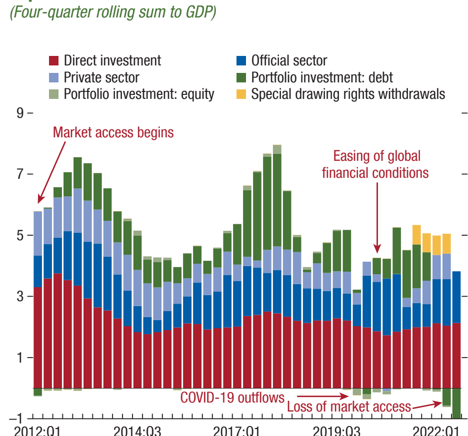
Sources: Bloomberg Finance L.P.; Goldman Sachs; Haver Analytics; ICE Bond Indices; National Association of Insurance Commissioners; PitchBook Leveraged Commentary and Data; Preqin; S&P Capital IQ; St. Louis Fed; UBS; US Flow of Funds; and IMF staff calculations.

Figure ES.8. Number of Sovereigns, by Spread in Basis Points



Sources: Bloomberg Finance L.P.; and IMF staff calculations.
Note: ">1,000 excluding defaulted" refers to the number of sovereigns trading with spreads over 1000 basis points that have not defaulted.

Figure ES.9. Frontier Market Nonresident Balance of Payment Capital Flows
(Four-quarter rolling sum to GDP)



Sources: Bloomberg Finance L.P.; Haver Analytics; IMF Balance of Payments data; and IMF staff calculations.

tightening is reducing the share absorbed by the Federal Reserve's balance sheet (Figure ES.6).

The impact of tighter monetary and financial conditions could be amplified because of financial leverage, mismatches in asset and liability liquidity, and high levels of interconnectedness within the NBFI sector and with traditional banking institutions. For example, in an effort to increase returns, life insurance companies have doubled their illiquid investments over the last decade and also make increasing use of leverage to fund illiquid assets (Figure ES.7).

Large emerging markets have so far managed relatively smoothly the sharp tightening of monetary policy in advanced economies, in part aided by the fact that global financial conditions have not matched the extent of global monetary policy tightening. However, they could face significant challenges should current strains in financial markets fail to subside and cause a pullback from global risk taking and associated capital outflows.

Sovereign debt sustainability metrics continue to worsen around the world, especially in frontier and low-income countries, with many of the most vulnerable already facing severe strains. There are now 12 sovereigns trading at distressed spreads and an additional 20 at spreads of more than 700 basis points, a level at which market access has historically been very challenging (Figure ES.8).

In frontier markets, brisk debt issuance evaporated in 2021 and may not resume at the same scale, given ongoing challenges with sovereign defaults and macro vulnerabilities (Figure ES.9). Low-income countries have been significantly affected by high food and energy prices, have little to no access to market financing, and have concerns about the availability of official concessional financing. They continue to face extremely challenging debt conditions, with more than half (37 out of 69) in, or at high risk of, debt distress.

Looking beyond financial institutions, households accumulated significant savings during the pandemic thanks in part to the fiscal support and monetary easing rolled out during the pandemic. However, they are facing heavier debt-servicing burdens, eroding their savings and leaving them more vulnerable to default. The steep increase of residential mortgage rates has cooled global housing demand. Average house prices fell in 60 percent of the emerging markets in the second half of 2022, while in advanced economies price increases have slowed. Economies with larger shares of adjustable-rate mortgages have recorded the largest declines in real prices. Valuations remain stretched in many countries, increasing the risk of a sharp price correction if interest rates rise quickly (Figure ES.10).

Concerns have been growing about conditions in the commercial real estate (CRE) market, which has been under pressure from a worsening of fundamentals and tighter funding costs. In the United States, banks with total assets less than $250 billion

account for about three-quarters of CRE bank lending, so a deterioration in asset quality would have significant repercussions both for their profitability and bank lending appetite. In addition, NBFIs play an important role in the real estate investment trusts (REITs) sector and commercial mortgage-backed securities markets, so there are broader implications stemming from stress in the CRE market, both for financial stability and for economic growth. Global transaction activity has decreased by 17 percent from the previous year, and REITs have seen price corrections up to 20 percent. Losses have been particularly elevated in the office sector, as demand and occupancy rates are more anemic in the post-pandemic environment.

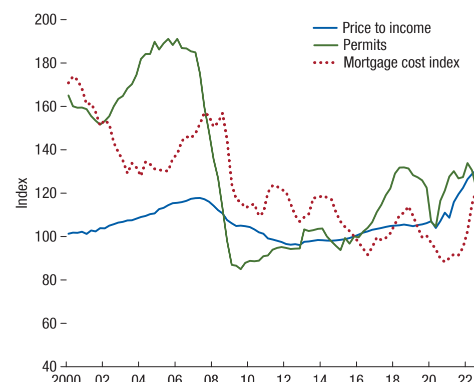
For firms, default rates have remained low, as the sector's substantial cash buffers built during the pandemic have provided financial cushioning (Figure ES.11). However, declining corporate earnings and tighter funding conditions have started to erode these buffers and could lead to repayment difficulties down the road and expose firms to defaults. Small firms and emerging market corporates would likely be more adversely affected because they lack alternative sources of financing to bank lending, the standards of which have already started to tighten.

China's housing market remains sluggish despite its reopening. Although financing conditions have improved for some property developers, home buyers continue to avoid purchasing from weaker private developers, underscoring the limited progress in restoring confidence in the broader housing market. Concerns about debt sustainability of local government financial vehicles (LGFVs)—which are heavily involved in the property market—intensified in 2022; with total LGFV debt estimated at about 50 percent of China's GDP, a broadening of LGFV debt distress could impose significant losses on some banks, particularly in low-income regions with higher local government debt and large stocks of unfinished housing (Figure ES.12).

Chapter 2 shows that NBFIs are increasingly interconnected with banks globally (Figure ES.13). Case studies show that nonbank financial intermediary stress tends to emerge with elevated leverage, poor liquidity, and high levels of interconnectedness, and that it can spill across jurisdictions, including to emerging market and developing economies. These vulnerabilities may be heightened in the current high-inflation environment, as the provision of liquidity by central banks for financial stability purposes becomes more challenging, including from a communications standpoint, and it could undermine the fight against inflation.

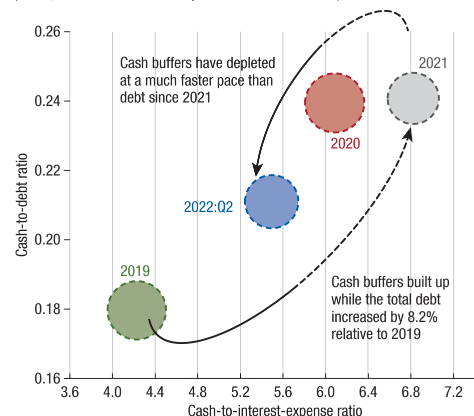
Chapter 3 documents how rising geopolitical tensions among major economies could raise financial stability risks by increasing global economic and financial fragmentation and adversely affect the cross-border allocation of capital (Figure ES.14). This could cause capital flows to suddenly reverse and could threaten

Figure ES.10. Global Housing Affordability and Supply Conditions
(Index, 2015 = 100)



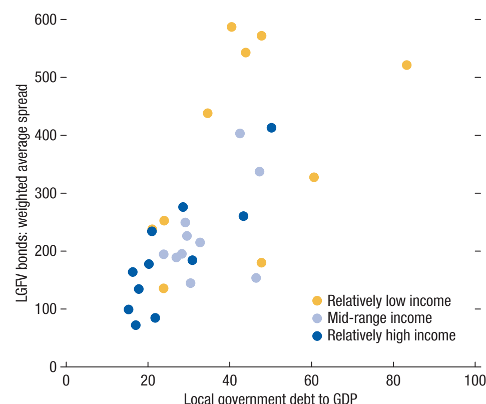
Sources: Bloomberg Finance L.P.; Federal Reserve Bank; Haver Analytics; MSCI Real Estate; and IMF staff calculations.

Figure ES.11. Corporate Cash-to-Interest-Expense Ratio and Cash-to-Debt Ratio
(Ratio; size of bubble corresponds to the debt level)



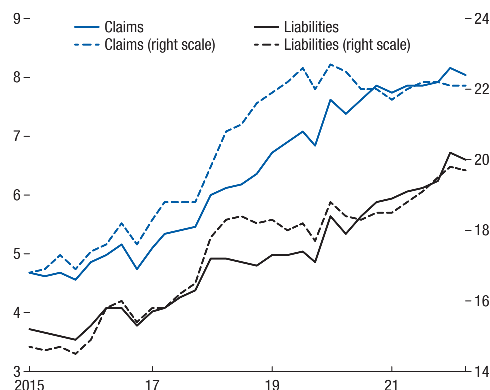
Sources: Bloomberg Finance L.P.; S&P Capital IQ; and IMF staff calculations.

Figure ES.12. China Local Government Financing Vehicle Spreads versus Local Government Debt
(Percent, basis points)



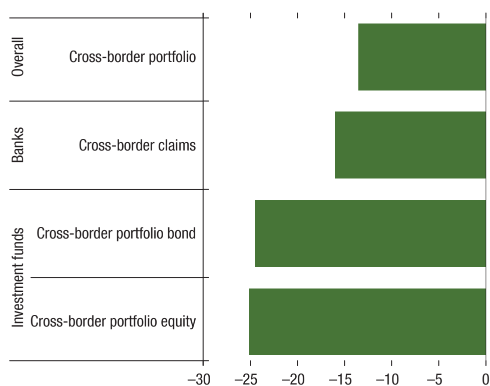
Sources: Bloomberg Finance L.P.; China Banking and Insurance Regulatory Commission; CEIC; JPMorgan Chase & Co.; and IMF staff calculations.
Note: LGFV = local government financing vehicle.

Figure ES.13. Banks' Cross-Border Linkages with Nonbank Financial Intermediaries across Jurisdictions
(Trillions of US dollars, left scale; percent of total cross-border liabilities, right scale)



Sources: Bank for International Settlements; and IMF staff calculations.

Figure ES.14. Rise in Geopolitical Tensions and Change in Cross-Border Capital Allocation
(Percent)



Sources: Bank for International Settlements, Locational Banking Statistics by Residence (restricted version); EPFR Global; FinFlows; IMF, Coordinated Direct Investment Survey; IMF, Coordinated Portfolio Investment Survey; and IMF staff calculations.

macro-financial stability by increasing banks' funding costs. These effects are likely to be more pronounced for emerging markets and for banks with lower capitalization ratios. Fragmentation could also exacerbate macro-financial volatility by reducing international risk diversification, particularly in countries with lower external buffers.

Policy Recommendations

The financial system is being tested by higher inflation and rising interest rates at a time when inflation in many jurisdictions remains uncomfortably above central banks' targets. The emergence of stress in financial markets is complicating the task of central banks. The availability of tools aimed at addressing financial stability risks should help central banks separate monetary policy objectives from financial stability goals, allowing them to continue to tighten policy to address inflationary pressures.

If financial strains intensify significantly and threaten the health of the financial system amid high inflation, trade-offs between inflation and financial stability objectives may emerge. Clear communication about central banks' objectives and policy functions will be crucial to avoid unnecessary uncertainty. Policymakers should act swiftly to prevent any systemic event that may adversely affect market confidence in the resilience of the global financial system. Should policymakers need to adjust the stance of monetary policy to support financial stability, they should clearly communicate their continued resolve to bring inflation back to target as soon as possible once financial stress lessens.

The recent turmoil in the banking sector has highlighted failures in internal risk management practices with respect to interest rate and liquidity risks at banks, as well as supervisory lapses. Supervisors should ensure that banks have corporate governance and risk management commensurate with their risk profile, including in the areas of risk monitoring by bank boards and the capacity and adequacy of capital and liquidity stress tests. For NBFIs, policymakers should close data gaps, incentivize proper risk management practices, set appropriate regulation, and intensify supervision.

Adequate minimum capital and liquidity requirements including for smaller institutions that, individually, are not considered systemic, are essential to contain financial stability risks. Prudential rules should ensure that banks hold capital for interest rate risk and guard against hidden losses that could materialize abruptly in the event of liquidity shocks. In the current environment of persistent inflation and high interest rates, authorities should pay specific attention to bank asset classification and provisions as well as to exposures to interest rate and liquidity risks.

Central banks' liquidity support measures should aim to address liquidity, not solvency issues. The latter should be left

to relevant fiscal (or resolution) authorities. Liquidity should be provided to counterparties that are compelled by supervision and regulation to internalize liquidity risk (the "stick") so that central banks may need to intervene only to address systemic liquidity risks (the "carrot"). A significant part of the risk should remain in the marketplace ("partial insurance") to minimize moral hazard, and interventions should have a well-defined end date allowing market forces to reassert themselves once acute strains subside.

Some of the recent responses by policymakers suggest that further work is needed on the resolution reform agenda to increase the likelihood that systemic banks can be resolved without putting public funds at risk. While it is a positive development that shareholders and holders of other capital instruments incurred losses, allocating more losses across the creditor hierarchy before public funds are put at risk is proving harder to deliver. The international community will need to take stock of these experiences and draw policy conclusions on the effectiveness of resolution reforms after the global financial crisis.

According to the IMF's Integrated Policy Framework, foreign exchange interventions may be appropriate in the case of illiquid foreign exchange markets, balance sheet mismatches, and weakly anchored inflation expectation, so long as reserves are sufficient and intervention does not impair the credibility of macroeconomic policies or substitute for their necessary adjustment. In case of imminent crises, capital outflow measures may be an option to lessen outflow pressures, although they should be part of a comprehensive policy package that tackles underlying macroeconomic imbalances and be lifted once crisis conditions abate.

Sovereign borrowers in developing economies and frontier markets should enhance efforts to contain risks associated with their high debt vulnerabilities, including through early contact with their creditors, multilateral cooperation, and support from the international community. Enacting credible medium-term fiscal consolidation plans could help contain borrowing costs and alleviate debt sustainability concerns. For countries near debt distress, bilateral and private sector creditors should coordinate on preemptive restructuring, using the G20 Common Framework where applicable.

Providing nonbank financial institutions with direct access to central bank liquidity could prove necessary in times of stress, but implementing appropriate guardrails is paramount. As a first line of defense, robust surveillance, regulation, and supervision of nonbank financial institutions are vital. If financial stability is threatened, situationally appropriate central bank liquidity support for nonbank financial institutions can be considered—discretionary marketwide operations, standing lending facilities, or lender of last resort—but such support needs to be carefully designed to avoid moral hazard.

Policymakers should devote resources to assessing, managing, and mitigating financial stability risks caused by geopolitical tensions rising. Financial institutions may need to hold adequate capital and liquidity buffers to mitigate such geopolitical risks. Policymakers should also ensure that the global financial safety net is adequate. Given the significant risks to global macro-financial stability, multilateral efforts should be strengthened to diplomatically resolve geopolitical tensions and prevent economic and financial fragmentation.