INTERNATIONAL MONETARY FUND

IMF Country Report No. 26/192

BRAZIL

FINANCIAL SYSTEM STABILITY ASSESSMENT

July 2026

This paper on Brazil was prepared by a staff team of the International Monetary Fund. It is based on the information available at the time it was completed on March 31, 2026.

Copies of this report are available to the public from

International Monetary Fund • Publication Services
PO Box 92780 • Washington, D.C. 20090
Telephone: (202) 623-7430 • Fax: (202) 623-7201
E-mail: publications@imf.org Web: http://www.imf.org

International Monetary Fund
Washington, D.C.

INTERNATIONAL MONETARY FUND

BRAZIL

FINANCIAL SYSTEM STABILITY ASSESSMENT

June 30, 2026

KEY ISSUES

Context: The Brazilian financial system has undergone significant change since the 2018 FSAP. While the system remains bank-dominated, with two of the six largest banks state-owned, technology-driven change has brought new digital entrants and stronger competition in banking services. Financial markets have grown significantly, with strong growth in corporate bond markets and derivatives, and a nascent but fast-growing structured credit market alongside intensifying retail trading. Payment services have been revolutionized by the Pix system, and crypto market activity is growing. Household and corporate indebtedness have increased despite elevated borrowing costs.

Findings: FSAP analysis found the financial system broadly resilient to adverse shocks, with domestic systemically important banks (DSIBs) experiencing more notable losses, while their capital ratios remain above stress test hurdle rates. The system is highly interconnected, including through common exposures to the sovereign bond market, while liquidity risks appear manageable. The authorities have demonstrated strong progress implementing the recommendations of the 2018 FSAP but are still facing challenges—mostly stemming from staffing constraints, lack of legal protection, and lack of legal authority—resulting in reduced intensity of banking supervision, and potential overreliance on self-regulatory organizations in securities markets. The authorities have a strong cybersecurity supervision program, appropriate amid rapid digitalization, while gaps in crypto asset supervision remain.

Policy advice: The FSAP recommended continued close monitoring of systemically important banks, expanding financial stability monitoring further into emerging areas and enhancing the macroprudential toolkit to help contain household debt-related risks and vulnerabilities. The FSAP recommended urgently remedying staffing constraints at supervisory agencies, granting the BCB full budgetary autonomy and greater legal protection for staff and called for the passage of a modernized bank resolution law.

Approved By
Michaela Erbenova and Ana Corbacho

Prepared By
Monetary and Capital Markets Department

This report is based on the work of the Financial Sector Assessment Program (FSAP) mission that visited Brazil during December 1 to 16, 2025, and March 18 to 31, 2026. The FSAP findings were discussed with the authorities during the Article IV consultation mission in May 2026.

- The team was led by Jennifer Elliott (IMF) and Ilias Skamnelos (World Bank), and included Marco Gross (IMF deputy mission chief), Faruk Miguel (World Bank deputy mission chief), David Blache, Andrés Fernández, Tamas Gaidosch, Ziya Gorpe, Kathleen Kao, Elisa Letizia, James Roberts, David Rozumkek, Yuji Sakurai, Tatsuya Sugiura, Mariano Spector, Javier Uruñuela, Rui Xu (all IMF staff), Ezio Caruso, Jennifer Chien, Maria Teresa Chimienti, Dorothee Delort, Gynedi Srinivas, Guillermo Galicia, Jose Garcia-Barroso, Catiana Garcia-Kilroy, Claudia Magalhaes and Simon Walley (all WB staff). Mahmoud Abouelmakarem, Suellen Basilio, Sihem Benamara, Michael Gottschalk, and Meiko Xie (all IMF) provided research, editing, and logistical support. Zoltan Jakab (IMF) contributed to the adverse macro-financial scenario design.
- FSAPs assess the stability of the financial system as a whole and not that of individual institutions. They are intended to help countries identify key sources of systemic risk in the financial sector and implement policies to enhance its resilience to shocks and contagion. Certain categories of risk affecting financial institutions, such as operational or legal risk, or risk related to fraud, are not covered in FSAPs.
- The mission met with key officials from the Banco Central do Brasil (BCB), Ministry of Finance, Comissão de Valores Mobiliários (CVM), Superintendência de Seguros Privados (SUSEP) and a number of other government ministries and offices, as well as private sector entities and associations including B3, BSM Supervisão de Mercados, ANBIMA, FEBRABAN and ABBC, banks, insurers, and asset managers.
- Brazil is deemed by the Fund to have a systemically important financial sector according to the 2021 Financial Sector Assessment Program Review—Towards a More Stable and Sustainable Financial System (05/28/2021), and the stability assessment under this FSAP is part of bilateral surveillance under Article IV of the Fund's Articles of Agreement.
- The previous FSAP took place in 2018. The status of implementation of its Key Recommendations can be found in Annex II.
- The team would like to thank the authorities for their outstanding cooperation and for the candid and productive discussions, both in person and virtually, throughout this exercise.

CONTENTS

Glossary

AML/CFT	Anti–Money Laundering / Combating the Financing of Terrorism
ANBIMA	Associação Brasileira das Entidades dos Mercados Financeiro e de Capitais
API	Application Programming Interface
BCB	Banco Central do Brasil
BCP	Basel Core Principles for Effective Banking Supervision
B3	Brasil, Bolsa, Balcão (exchange and market infrastructure group)
BNDES	Banco Nacional de Desenvolvimento Econômico e Social
CASP	Crypto-Asset Service Provider
CCB	Cédula de Crédito Bancário (Bank Credit Note)
CCoB	Capital Conservation Buffer
CCyB	Countercyclical Capital Buffer
CET1	Common Equity Tier 1 Capital
CMN	Conselho Monetário Nacional
CPMI	Committee on Payments and Market Infrastructures
CCP	Central Counterparty
CSD	Central Securities Depository
CVM	Comissão de Valores Mobiliários
DAR	Detailed Assessment Report
DSIB	Domestic Systemically Important Bank
DSTI	Debt-Service-to-Income Ratio
DTI	Debt-to-Income Ratio
ELA	Emergency Liquidity Assistance
FGTS	Fundo de Garantia do Tempo de Serviço (Severance Indemnity Fund)
FGC	Fundo Garantidor de Créditos (Deposit Insurance Fund)
FMI	Financial Market Infrastructure
FSAP	Financial Sector Assessment Program
FSSA	Financial System Stability Assessment
FSB	Financial Stability Board
HQLA	High-Quality Liquid Assets
IFRS	International Financial Reporting Standards
IOSCO	International Organization of Securities Commissions
LAC	Loss-Absorbing Capacity
LCR	Liquidity Coverage Ratio
LGD	Loss Given Default
MoF	Ministry of Finance
MoU	Memorandum of Understanding
NBFI	Non-Bank Financial Institution
NFC	Nonfinancial Corporation

NIM	Net Interest Margin
NPL	Non-Performing Loan
NSFR	Net Stable Funding Ratio
ORSA	Own Risk and Solvency Assessment
PD	Probability of Default
Pix	Brazil's Instant Payment System
PPP	Public–Private Partnership
RAM	Risk Assessment Matrix
Repo	Repurchase Agreement
RWA	Risk-Weighted Assets
SBPE	Sistema Brasileiro de Poupança e Empréstimo
SELIC	Special System for Settlement and Custody of Federal Government Securities
SPI	Instant Payments System
SRA	Systemic Risk Analysis
SRO	Self-Regulatory Organization
SSS	Securities Settlement System
STeM	Stress Test Matrix
STR	Sistema de Transferência de Reservas (large-value payment system)
SUSEP	Superintendência de Seguros Privados
WEO	World Economic Outlook

EXECUTIVE SUMMARY

The Brazilian financial system is large and diverse—it is bank-dominated but also home to large capital markets and a sizeable investment fund industry. The top five banks—including two state-owned banks—constitute 60 percent of banking assets, but digital transformation has prompted new competition and efficiency. The large investment funds sector is concentrated in fixed-income securities. Secondary markets have expanded since the 2018 FSAP, and the domestic crypto market is significant.

The economy has remained resilient through multiple shocks since the pandemic. A tightening cycle extended from September 2024 to June 2025, but the Banco Central do Brasil (BCB) began cutting the policy rate in 2026. Government debt is high but risks are mitigated by large cash buffers, a predominantly domestic investor base, BCB's substantial holdings of government securities, and low FX debt. Fiscal pressures remain significant, as rising mandatory primary spending and a high interest bill limit productive investments. The outbreak of the war in the Middle East has increased uncertainty. Although Brazil is relatively cushioned from oil price increases because of its relatively clean energy mix and net oil exporter status, a prolonged conflict could raise inflation, tighten financial conditions and weaken global demand. Credit growth has supported the consumption-led recovery but is slowing as high interest rates weigh on household and corporate debt servicing burdens.

The banking system is profitable, well-capitalized, and liquid in aggregate. Solvency stress tests show that the system remains resilient under severe macro-financial shocks, with high profitability cushioning capital depletion among the largest banks. Several banks fall short of capital requirements, but their aggregate share of system assets is small. The planned phase-out of deferred tax assets will strengthen capital quality but may temporarily weigh on the resilience of some banks. Liquidity stress tests find the system resilient, with stress under a large-outflow scenario limited to a few banks making up a small fraction of system assets. The small insurance sector is broadly resilient to severe shocks, with life insurers most affected and reinsurers least affected. Banks and investment funds are highly interconnected, and stress originating in funds could prompt severe adverse price feedback into bond markets.

The macroprudential framework has strengthened since 2018 with a need to continue expanding monitoring and analysis as the markets innovate. Operationalizing a counter-cyclical capital buffer—including a positive-neutral reference—and introducing a debt-service-to-income ratio cap to support household borrower and bank resilience are next steps.

The banking supervision system has made significant progress since the previous FSAP—but the BCB urgently needs additional resources and full budgetary autonomy to protect gains. The regulatory framework is well developed, and BCB has a state-of-the-art reporting and monitoring system and a comprehensive risk-based supervision framework is in place. However, staffing resource erosion —partly due to the lack of budgetary autonomy— has affected analytical depth and reduced onsite examinations, impeding the supervisory intensity needed. More timely escalation and intervention are needed for identified risks. Legal protection and independence have improved, but remain a concern affecting supervisory timeliness and approach.

The investment funds and secondary markets regulatory framework have also improved, with developments in data reporting and liquidity requirements. Ensuring that products and trading venues standards keep pace with greater competition and the market evolution will require a more hands-on approach from the Comissão de Valores Mobiliários (CVM) where resources, both human and systems, require reinforcement. A new framework is in place for crypto assets with further enhancements needed including ensuring legal protection of customer assets under custody, regulation of stablecoin issuers, cooperation channels with foreign regulators, and risk-based capital requirements.

The growing Pix instant payment system has become an important catalyst of inclusion and competition. The BCB should further enhance oversight by formalizing its Pix oversight policy, separating operational and oversight functions, and adopting a comprehensive and integrated risk management framework.

The BCB has prioritized addressing rising cybersecurity risks to preserve the positive impact of digitalization. The regulatory framework is broadly aligned with international standards but could expand to include more guidance on incident reporting, red teaming and penetration testing, and setting out clear Application Programming Interface (API) security requirements.

Adoption of a full legal framework for bank resolution and improving sharing of information with the deposit insurer would further improve the authorities' ability to manage distress events. The BCB has instituted recovery and resolution planning, preparing resolution plans for domestic systemically important banks (DSIBs), and has used its powers to maximum effect. However, a Draft Resolution Law setting out a resolution framework has remained with Congress since 2019—adopting a modernized resolution framework in line with international standards remains critical. Extending proportionate recovery planning to all banks would further improve supervision. The BCB has robust and flexible enforcement powers and should develop procedures to share information with the deposit insurer (FGC) on early interventions, as well as provide more timely information to prepare depositor payouts. The FGC's open bank assistance function may expose the fund to significant risk or losses and should be discontinued. A framework for emergency liquidity assistance (ELA) is in place, with collateral prepositioning introduced and could be further improved by extending liquidity assistance authority to cover securities markets and nonbank institutions and financial markets infrastructures (FMI), and strengthening prepositioning.

Table 1. Brazil: FSAP Key Recommendations		
Recommendations	Authority	Timeline[1]
Financial Stability and Macroprudential Policy		
Expand the scope of BCB solvency and liquidity stress test models to cover digital banks; enhance market risk analysis and consider aligning the credit risk methodology with IFRS 9 principles. ¶38	BCB	ST
Continue to use stress testing to complement the prudential framework and inform the review of ORSA submissions, and assess climate related risk transfer mechanisms used by insurers. ¶40	SUSEP, MoF	ST
Strengthen BCB's financial stability framework and powers to monitor and address systemic risks beyond banking, including from NBFIs and crypto-asset activities. ¶43	BCB	MT
Continue to strengthen structured inter-agency collaboration to assess the materiality of climate-related risks to the financial system. ¶41	MoF, BCB, SUSEP	MT
Strengthen borrower-based macroprudential tools by introducing a debt-service-to-income ratio limit designed based on an in-depth analysis of feasibility and impact ¶45	BCB	MT
Calibrate and implement a positive neutral countercyclical capital buffer (PN-CCyB) for banks. ¶44	BCB	ST
Financial Supervision		
Address critical shortage of staffing and resources in BCB, CVM and SUSEP; ensuring each institution can fulfil the full scope of its mandate and further enhance independence of these institutions with additional legal safeguards and budgetary autonomy (both financial and administrative independence). ¶47, 53, 66	BCB, CVM SUSEP, MoF	I
Enhance the legal protection of BCB and CVM staff for acts undertaken in good faith; include scope of protection to include actions taken for foreign resolution measures. ¶47, 66	BCB, CVM, MoF	I
Banking Supervision		
Strengthen bank supervision processes by employing a more intrusive supervisory approach that improves timeliness of supervisory actions, expands the use of onsite inspections, enhances the depth of offsite activities, and reinforces the application of formal enforcement. ¶50	BCB	ST
Broaden the definition of related party and related party transactions in regulation. ¶49	BCB	MT
Securities Markets Regulation		
Intensify trading oversight and develop program for inspections of broker-dealers and ensure that regulatory requirements are specified with sufficient detail. ¶54	CVM	ST
Enhance market surveillance capacity and adopt more proactive market monitoring and monitoring of emerging risks. ¶54	CVM	ST

Table 1. Brazil: FSAP Key Recommendations (Concluded)		
Crypto Regulation		
Complete the legal and regulatory framework for crypto-assets and CASPs, with an emphasis on protection of client assets, market integrity and suitability in line with FSB and IOSCO recommendations. ¶55	MoF, BCB	ST
Establish powers to regulate stablecoin issuance activity, with appropriate international cooperation arrangements, in alignment with the FSB Global Stablecoin Arrangement recommendations. ¶55	MoF, BCB	ST
Develop comprehensive and robust oversight, monitoring, and supervision, including of interconnectedness across the financial system, for crypto-asset services and providers. ¶56	BCB	ST
Financial Market Infrastructure		
Revise risk requirements by mandating adequate resources at each FMI, supported by credible and regularly tested recovery and orderly wind-down plans. ¶57	BCB, CVM	ST
Fast Payment System		
Formalize and disclose BCB's Pix oversight policy, separate the operational and oversight functions, and consider MoUs for oversight purposes with jurisdictions connected to Pix. ¶58	BCB	I
Adopt a comprehensive and integrated risk management framework for Pix that captures risks from participants, domestic and cross-border linkages, and critical service providers. ¶58	BCB	ST
Cybersecurity supervision		
Enhance oversight of BCB operated FMI by adding cyber risk specialist resources. ¶60	BCB	ST
Assess workforce needs over 3-5 years and ensure staffing resources are commensurate with level of risk. ¶60	BCB	ST
Enhance standards for incident reporting and testing requirements. ¶60	BCB	MT
Financial Consumer Protection		
Establish responsible lending rules requiring FSPs to assess suitability of a credit product for individual borrowers prior to loan origination. ¶61	BCB	I
Anti-Money Laundering and Combatting the Financing of Terrorism		
Continue to enhance BCB sanctioning abilities. ¶62	BCB	MT
Implement AML/CFT requirements for crypto asset service providers in line with international standards. ¶62	BCB	ST
Crisis Management and Financial Safety Nets		
Adopt a law that modernizes the statutory bank resolution regime in compliance with international standards. ¶65	MoF/BCB	I
Link early warning indications to specific supervisory actions, reducing the risk of forbearance or delayed response to risk build-up. ¶67	BCB	I
Develop internal procedures to share information with the FGC on early intervention in banks and reflect these in the BCB-FGC MoU. Reduce the payout period to seven days. ¶69	BCB/FGC	ST
Establish adequate mechanisms to ensure that FGC lending is not misused or used to maintain insolvent banks and discontinue FGC open bank assistance altogether. ¶70	BCB/FGC	I
Central Bank Liquidity Assistance		
Grant BCB authority to intervene in secondary securities markets for financial stability purposes and establish liquidity facilities for non-bank financial institutions when liquidity-constrained NBFIs or FMIs pose systemic risk. ¶72	BCB, MoF	MT
Note: I: immediate (within one year), ST: short term (1–2 years), and MT: medium term (3–5 years).		

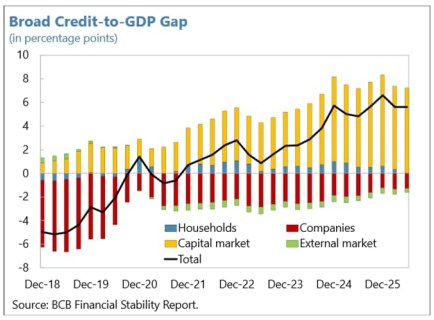
BACKGROUND

A. Macro-Financial Context

1. Brazil's economy has remained resilient in recent years despite repeated shocks, including global trade tensions. Its post-pandemic recovery has been strong by international standard (Table 2 and Annex Figure 1), with real GDP growth averaging 3.0 percent from 2022-2025 and per-capita income exceeding its pre-pandemic path.[1] The consumption-driven recovery reduced unemployment and increased inflationary pressures, prompting the BCB to raise rates from September 2024 to June 2025. The BCB cut rates twice to 14.5 percent this year, but the rise in global energy prices stemming from the war in the Middle East is interrupting progress in reducing inflation, leading the central bank to recalibrate its stance cautiously. Although higher commodity prices—especially oil—support Brazil's export revenues in the near term as a net oil exporter, a prolonged conflict would still pose risks through higher inflation, tighter financial conditions, and weaker global demand.

2. The government debt path has worsened amid high interest rates and increased spending. Since 2018, gross general government debt has risen to 93.3 percent, with the net interest bill at 7.7 percent of GDP in 2025—high among emerging markets. Debt risks are mitigated by large cash buffers (14 percent of GDP) and a predominantly domestic investor base, including a significant share held by the central bank. The sovereign-financial nexus is strong—with significant exposure to government debt in investment funds, pensions, insurers and banks.

3. Credit growth has supported post-pandemic recovery but is slowing amid high borrowing costs. Credit to higher-risk households and bank lending to firms have both moderated, although strong corporate bond issuance has kept the broad credit gap positive (Annex Figure 2 and text chart). Credit costs remain structurally high beyond the effect of the policy rate on funding costs, especially for consumer loans. According to BCB analysis, this reflects a combination of high default cost, administrative expenses, profit margins, taxes, and deposit insurance contributions.



4. Elevated interest rates and higher leverage are straining corporate and household balance sheets. Even with strong income growth and low unemployment, the household debt service-to-income ratio is high and rising, driven by unsecured consumer loans like credit cards (Annex Figure 3). Corporate profitability has improved since 2018, with many large firms reducing financing costs by shifting toward bond issuance, but high interest rates and leverage remain vulnerabilities (Annex Figure 4). NPL ratios have increased—partly driven by the introduction of IFRS 9 in 2025 which slowed the write-off process—but banks' credit loss provisioning appears adequate,

[1] See Brazil: Staff Report for the 2026 Article IV Consultation.

with the provision coverage ratio pertaining to NPLs amounting to 56 percent at end-2025, a level exceeding economic LGD estimates.

5. Natural disasters present growing risks. Brazil faces financial stability risks stemming from extreme weather events, with floods, storms, and extreme temperatures representing the most acute physical climate risk materialization (Annex Figure 5). The frequency and severity of natural disasters have been rising, potentially intensifying economic and financial stability challenges.

B. Financial Sector Structure and Performance

6. The Brazilian financial system is dominated by large bank groups, with state-owned banks playing a significant role (Annex Figure 6).[2] Total banking system assets amount to 145 percent of GDP, with five DSIBs representing about 60 percent thereof.[3] The insurance sector represents 18 percent of GDP with premiums growing quickly (Annex Figure 7).

7. The banking system has healthy aggregate capital and liquidity buffers and is generally profitable. Bank capital compares well with peer countries, with an aggregate CET1 ratio at 14.2 percent (Annex Figure 9 and Table 3) at end-2025. The system-level liquidity coverage ratio (LCR) stood at 199 percent in 2025. Banks' exposures to the sovereign amount to about 30 percent of total assets.[4] Asset quality deteriorated following the Covid-19 shock and remains at 2020 levels (Figure 8). A mid-sized bank faced distress in 2025 and was liquidated by the BCB without repercussions for the system as a whole.

8. Brazil's capital markets have expanded materially since 2018. Bond markets now provide 18.5 percent of GDP in funding to corporates, up from 7 percent in 2018 (Annex Figure 4). The equity market is the largest in South America and the derivatives market is well-developed, with sustained demand for hedging across FX, interest rates, equities, and commodities. Money markets are dominated by the overnight government bond repo market—with banks, investment funds, and the central bank as the dominant players. Investment funds (84 percent of GDP) are concentrated in fixed income holdings, in particular in government securities.

9. The crypto-asset market in Brazil—particularly USD-pegged stablecoins—has expanded rapidly since 2017, with flows growing faster than traditional capital flows and nominal GDP. Cross-border crypto flows have been steadily increasing, growing faster than traditional capital flows and nominal GDP (Annex Figure 9). Estimates suggest that between one-third and two-thirds of the variance in stablecoin purchases is explained by external factors such as the VIX, Bitcoin prices, the S&P 500, and others—making stablecoin flows two to three times more sensitive to global shocks than traditional portfolio or FDI flows.[5] Domestic factors, including the

[2] 80 percent of household mortgages are extended by one state-owned bank at rates below market; additional incentives are provided for lending to preferred industries including agriculture and construction.

[3] Banking sector assets here cover all financial institutions that take deposits, including banks, credit unions, and digital banks (some may not have full banking licenses).

[4] Sovereign exposure excludes deferred-tax assets.

[5] See also Fernandez et al. (forthcoming) and Cardozo et al. (2024, link).

exchange rate, interest rates, policy uncertainty, and changes in the IOF tax, were also found to be relevant. While systemic financial stability risks related to crypto currently appear contained, the rapid growth of crypto activity, including stablecoins as one component, warrants close monitoring.

10. Digital transformation—through the emergence of digital banks and supported by the introduction of an instant payment system (Pix)—has increased competition and enhanced efficiency in the financial system. Emerging digital banks have reduced banking sector concentration and keep fostering competition and efficiency, leading to lower lending rates as well.[6] Pix is a low-cost, widely accessible payment system that has further catalyzed a shift to digital services. As in other jurisdictions, cyber-attacks and digitally-enabled fraud have become primary risks.

SYSTEMIC RISK ANALYSIS (SRA)

A. Macro-Financial Scenarios

11. The SRA workstream assessed the resilience of banks and other financial sector entities against two adverse macro-financial scenarios. The analysis considered a baseline and two adverse scenarios spanning the period 2026–2028 (Figures 1 and 2).[7]

- The baseline scenario follows the IMF's April 2026 World Economic Outlook (WEO) projections.[8,9]
- The *recessionary scenario* features a synchronized global economic slowdown, widening credit spreads, term premium decompression, and a confidence loss that dampens aggregate demand. Real GDP contracts by -6.5 percent cumulatively over 2026–2027, 11.3 percentage points below historical mean growth (equivalent to 2.7 standard deviations). A negative output gap and disinflation go along with falling policy rates, below the baseline. Financial market volatility is heightened, the exchange rate depreciates moderately, and equity prices drop significantly.
- The *sovereign debt distress scenario* features the same global layer as the recessionary scenario, but features a confidence crisis element, pertaining to Brazil's fiscal position, leading to a risk-off event. This results in a sharper FX depreciation and even higher risk

[6] See Xu (2026, link) and Silva et al. (2021, link).

[7] The two adverse scenarios were quantitatively calibrated using the Global Macro-Financial Model (GFM) of Vitek (2018).

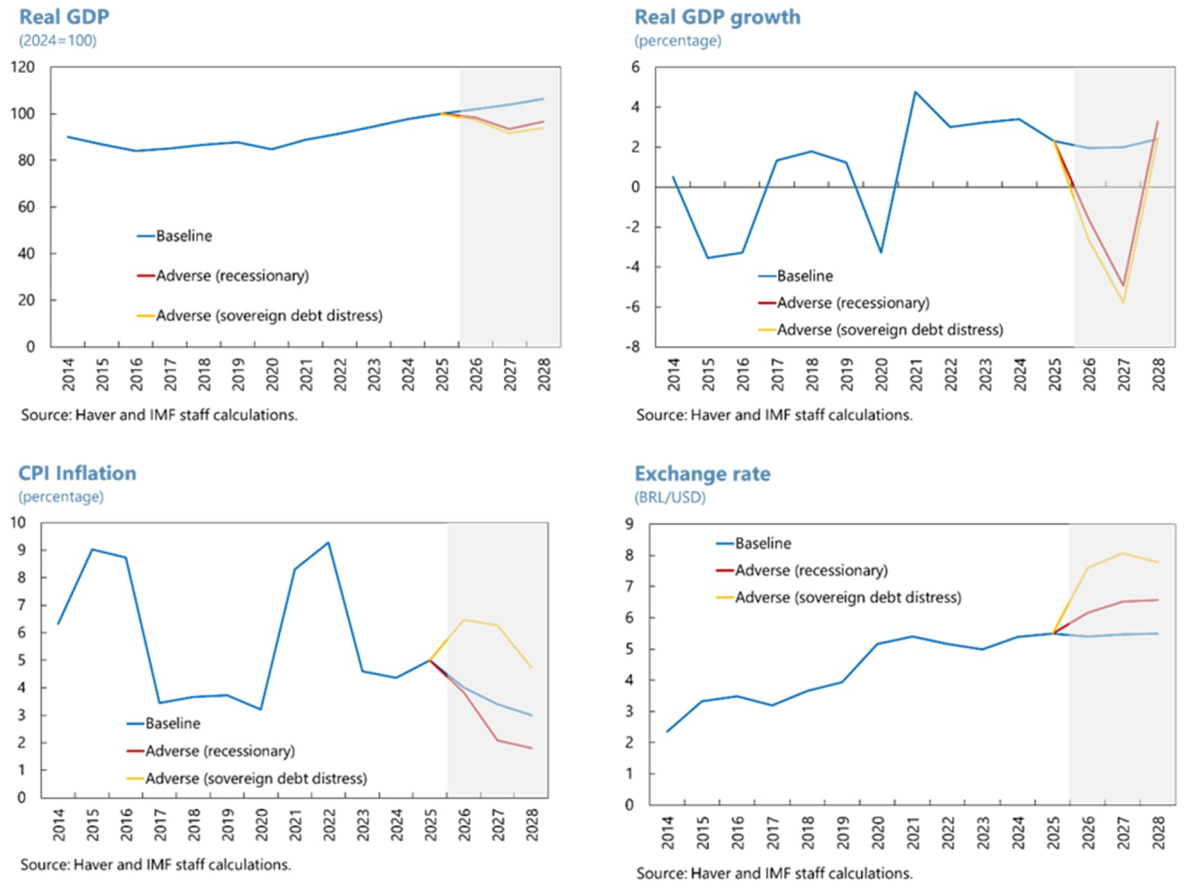
[8] In the context of the war in the Middle East, the adverse scenarios remain sufficiently severe and capture the main transmission channel. The war heightens downside risks for the global economy and upside risks for domestic inflation, principally through higher energy prices. While Brazil is relatively cushioned from oil price increases because of its relatively clean energy mix and status as a net oil exporter, a prolonged conflict could raise inflation, tighten financial conditions, and weaken foreign demand. Brazilian banks also have a limited direct exposure to commodities and inflation (as captured by their net open position). Thus, the main transmission channel from the war in the Middle East to the banking sector in a severe tail scenario would be through higher policy rates. This channel is appropriately captured in the sovereign debt distress scenario.

[9] WEO projections were complemented with Focus Survey expectations for the SELIC rate and the exchange rate.

premia. Inflation increases and policy rates hike as a result. Real GDP contracts by -8.3 percent over 2026–2027 (13.1 percentage points below historical mean growth, equivalent to 3.1 standard deviations). The decline in real GDP at the trough is more severe than the 2015-2016 recession and similar to the scenario used in the 2018 FSAP (Figure 12).

12. The market risk analysis was based on a short-term market distress scenario (Figure 3). This scenario was designed separately from the lower frequency macro-financial scenario paths and was calibrated to a window of 7 or 30 days. Variables were expressed as 7 or 30 day percentage changes (or percentage point changes in the case of yields). Calibration was based on the conditional mean of each variable, computed over observations within the 0.1 percent lower (or upper) tail of their marginal distribution. Risk-free yields and risk premia increase (with a differentiated calibration for BRL- and USD-denominated instruments), while commodity prices and domestic and global stock prices are assumed to drop sharply, and the BRL depreciates.

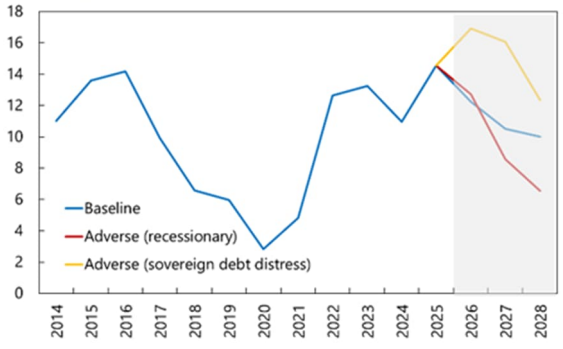
Figure 1. Brazil: Macro-Financial Scenarios



Sources: BCB, Haver, and IMF staff calculations.

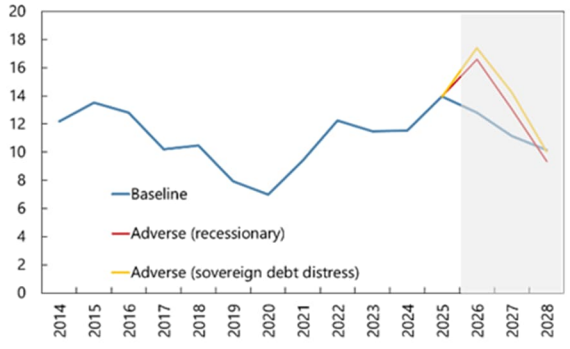
Figure 1. Brazil: Macro-Financial Scenarios (Concluded)

SELIC rate
(percentage)



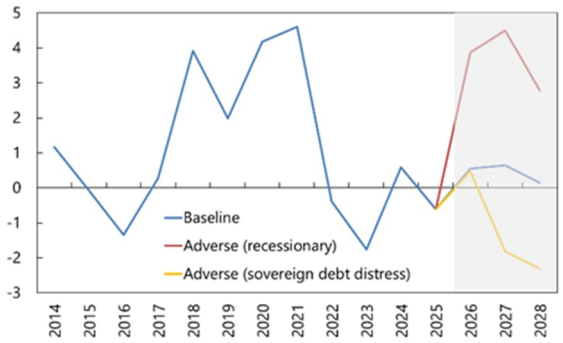
Source: Haver and IMF staff calculations.

Long-Term rate
(percent)



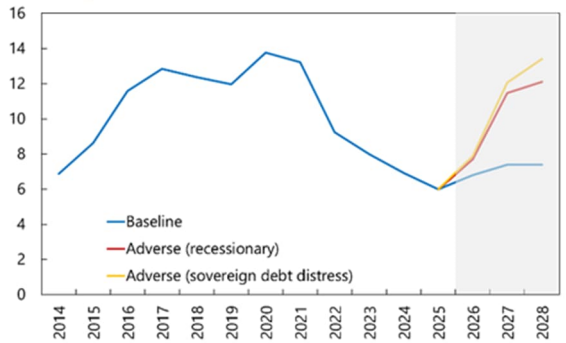
Source: Haver and IMF staff calculations.

Term spread
(percentage points)



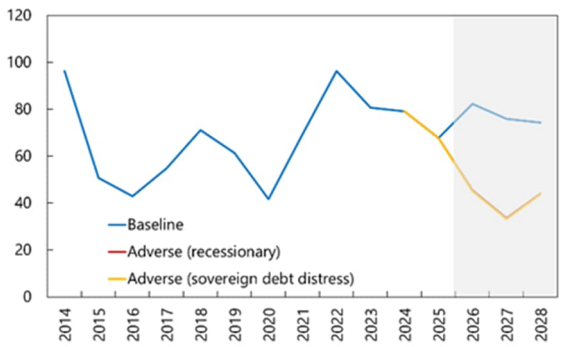
Source: Haver and IMF staff calculations.

Unemployment rate
(percentage)



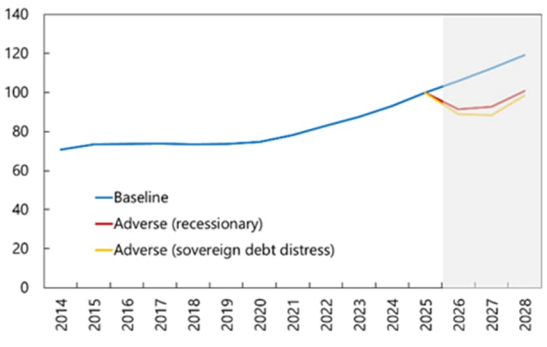
Source: Haver and IMF staff calculations.

Oil Price
(USD/bbl)



Source: Haver and IMF staff calculations.

Real Estate Prices
(2025=100)



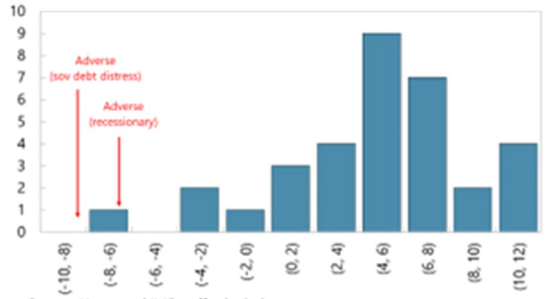
Source: Haver and IMF staff calculations.

Sources: BCB, Haver, and IMF staff calculations.

Figure 2 . Brazil: Macro-Financial Scenarios—Severity Metrics

Frequency of two-year cumulative real GDP growth, 1990-2024

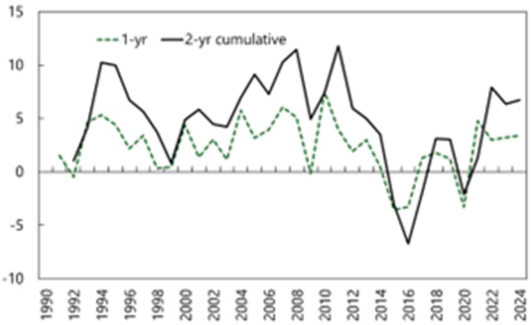
(x-axis in percent, y-axis in number of occurrences)



Source: Haver and IMF staff calculations.

Real GDP growth

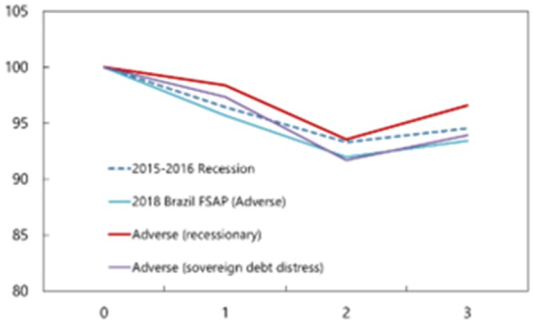
(percent)



Source: Haver and IMF staff calculations..

Real GDP Index during previous stress episodes

(x-axis in years; y-axis: year before start of the recession=100)



Source: Haver and IMF staff calculations.

	Baseline	Adverse: Recessionary	Adverse: Sovereign debt distress
Cumulative growth, 2025-2027	4.0	-6.5	-8.3
Deviation of 2027 GDP, adverse relative to baseline			
in percent of baseline GDP		-10.0	-11.8
in standard deviations		-2.4	-2.8
Deviation of 2025-2027 GDP growth, adverse relative to historical mean growth			
in ppts		-11.3	-13.1
in standard deviations		-2.7	-3.1

Sources: BCB, Haver, and IMF staff calculations.

Figure 3. Brazil: Market Distress Scenarios

Units	Variable	Tenor	7-days	30-days
bps	BRL risk-free rate	3m	121	276
		6m	179	308
		1y	217	342
		5y	205	321
		10y	209	316
	USD risk-free rate	1m	135	181
		6m	59	126
		1y	77	107
		5y	59	120
		10y	57	111
	Sovereign Risk Premium BRL		23	32
	Sovereign Risk Premium USD		167	253
	Corporate Risk Premium (B/C/D)		145	291
percentage change	Oil		-38.3	-56.4
	Domestic stock market index		-29.2	-42.3
	US stock market index		-18.3	-30.7
	FX (negative means depreciation)		-10.2	-21.2
pps	CPI Inflation (Y1 macro scenario)		2.5	2.5

Sources: BCB, Haver, and IMF staff calculations.

B. Nonfinancial Corporate Sector Risk Analysis and Stress Testing

13. Corporates are increasingly turning to debt securities as a source of financing (Annex Figure 4). Earmarked credit for firms has decreased notably, dropping from 14 percent of GDP in 2015 to 8 percent in 2025, primarily as a result of the 2018 reform of the national development bank.[10] The contraction has had a more pronounced impact on smaller firms compared to large corporates, as latter have been able to increase debt securities stock—from an annual 6 percent to 19 percent of GDP over the past decade. Both demand and supply factors have contributed to this rapid expansion of corporate leverage even in a high cost environment: investors show a preference for bonds over equities in a high-interest rate environment, while firms favor bond issuance over bank loans due to lower spreads—particularly for bonds for which earnings are tax exempt. Most debentures are issued by large companies within the services and utilities sectors; typically featuring floating interest rates, increasing firm susceptibility to rising interest rates.

14. Stress test results suggest that corporate debt servicing capacity is susceptible to stagflation shocks, despite better profitability at the outset (Figure 4). By examining data from about 8,000 Brazilian firms,—corporate balance sheets were forecast for 2026-2028 conditional on different scenarios.[11] In a sovereign debt distress scenario, total debt among firms with interest coverage ratios below one could more than double—to around 17 percent of GDP—surpassing the

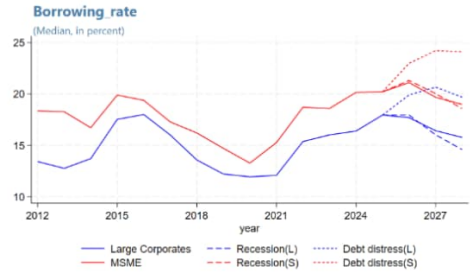
[10] The 2018 BNDES reform primarily replaced the subsidized Long-Term Interest Rate (TJLP) with the Long-Term Rate (TLP) for new loans. This shift linked borrowing costs closer to market and inflation rates, drastically reduced fiscal subsidies, and redefined the bank's role to focus more heavily on infrastructure and capital market expansion.

[11] Probability of default (PD) and loss given default (LGD) metrics came from Moody's CreditEdge and company financial data came from Capital IQ Pro. The following variables are simulated to calculate ratios and debt servicing capacity: total revenues, cost of goods sold, other operating expenses, net interest expenses, and taxes.

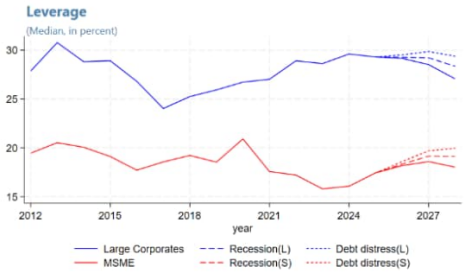
peaks of 2015-16; both large corporations and mid-sized firms would see PDs and LGDs reach levels last seen during Brazil's 2015-16 recession period.

Figure 4. Brazil: NFC Stress Testing Results

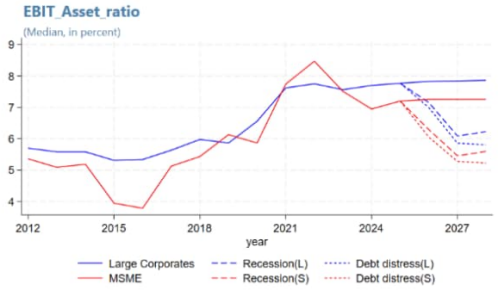
Firm borrowing costs are historically high and would increase further in the sovereign debt distress scenario.



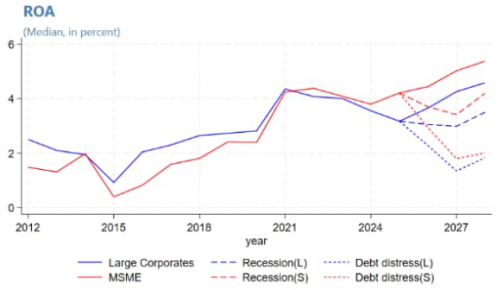
Leverage has increased since 2018 for large corporations but declined for MSME.



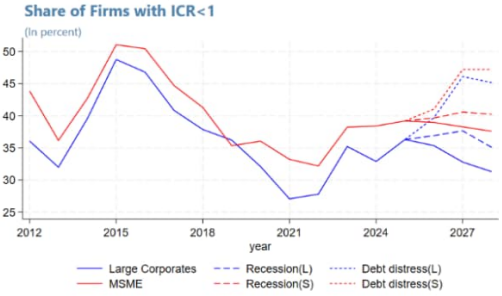
Earnings before interest and taxes have improved since 2018, supporting resilience from that perspective.



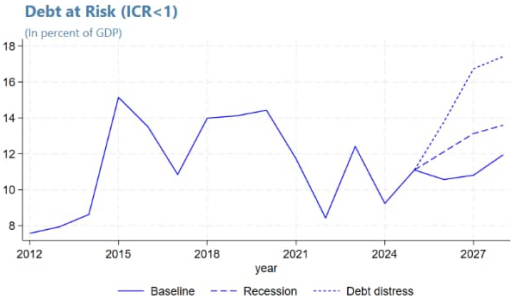
Return on assets has also improved despite high borrowing costs and would better sustain adverse shocks.



The proportion of firms with low interest coverage ratios would increase under adverse scenarios, though not as much as in 2015–16.



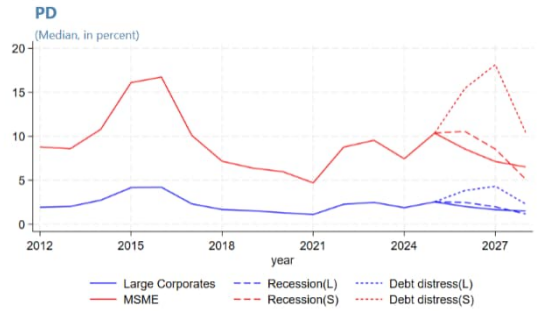
However, total debt among companies with low ICR under the adverse scenarios would exceed 2015–16 levels due to higher leverage among large firms.



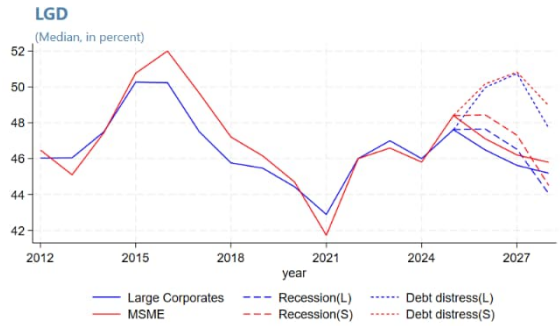
Sources: Capital IQ, CreditEdge, and IMF staff calculations.

Figure 4. Brazil: NFC Stress Testing Results (Concluded)

PDs will increase to levels similar to 2015-16 under the sovereign debt distress scenario.



LGDs would increase to levels close to 2015-16 levels as well.



Sources: Capital IQ, CreditEdge, and IMF staff calculations.

C. Bank Solvency Stress Testing

15. The FSAP conducted a scenario-based solvency stress test of the Brazilian banking sector (Figure 5). The stress test included 83 banks, covering 95 percent of banking sector assets.[12] It was conducted based on end-2025 supervisory data, using a model that accounts for all major forms of solvency risk (credit risk, market risk, interest rate risk, fee and commission income). The hurdle rate was set to the minimum capital requirement (4.5 percent for CET1 ratio), plus regulatory buffers (DSIB buffers and Pillar II add-on); the capital conservation buffer was included in the hurdle in the baseline scenario, but excluded in the adverse scenarios, reflective of the assumption that these buffers would be usable during a severe downturn.

16. The aggregate capital ratio remains above the hurdle rate in both adverse scenarios. The aggregate CET1 capital ratio grows in the baseline, from a starting point of 13.6 percent at end-2025 to 15.8 percent by end-2028. The capital depletion is notably larger in the sovereign debt distress scenario relative to the recessionary scenario. The former features a more considerable decline in net interest margins amid assumed monetary policy tightening, and higher credit losses, particularly in the corporate portfolio where profitability pressures and higher real interest rates can exacerbate default risks.[13] The depletion in system-level CET1 ratio (relative to the starting value) amounts to 370 basis points under the sovereign debt distress scenario and to 79 basis points under the recessionary scenario.

[12] For the purposes of this report, the term "*banks*" encompasses all deposit-taking institutions within the scope of the stress testing exercise, including credit unions and digital banks.

[13] The FSAP finds that higher policy rates tend to compress banks' net interest margins—with wholesale funding accounting for close to half of banks' total funding, the pass-through of higher policy rates to the effective interest expense rate is higher than the pass-through to the interest income rate. An increase in non-performing loans further contributes to the decline in interest income.

17. While some banks could breach their hurdle rate in the adverse scenario, they represent a small share of banking system assets. In the sovereign debt distress scenario, none of the DSIBs fall below their hurdle rates, while two medium-sized banks and 14 small-sized banks would breach the hurdle. However, the aggregate capital shortfall is small, at 0.2 percent of GDP (0.1 percent of total system assets, 1 percent of system CET1 capital). Although no DSIBs breach the hurdle, at the trough they stand on aggregate 210bps above the hurdle, while medium- and small-sized banks have more comfortable buffers of over 760bps. This results from DSIBs having lower initial CET1 ratios (12.3 and 15.9 percent for DSIBs and non-DSIBs, respectively) and a moderately higher capital depletion relative to the starting point (407 and 305bps for DSIBs and non-DSIBs, respectively). Digital banks perform better than the other bank clusters, with lower initial capital ratios but stronger profitability.[14]

18. The transitional arrangement for deferred tax assets (DTAs) may support higher-quality capital in the long term but could weigh on short-term resilience, especially for DSIBs (Figure 5). At end-2025, Brazilian banks—particularly DSIBs—held sizeable DTAs from differences in the timing between accounting loss recognition and tax deductibility. Under the phase-out rule, banks lacking sufficient taxable income to amortize DTAs from 2026 onward would convert the remainder into tax loss carryforwards deducted from CET1 capital and RWAs. DTAs subject to this phase-out amount to 3 percent of RWAs for DSIBs and 0.6 percent for non-DSIBs. Assuming one-seventh of the initial DTA stock[15] is used annually for tax deductions, with any unused amount converted into carryforwards, the FSAP finds an additional 64bps decline in the aggregate CET1 ratio under the severe adverse scenario, though the system remains above the hurdle rate. DSIBs are most affected, with an additional 94bps capital depletion by 2027 and one DSIB falling below the hurdle. The number of banks below the hurdle rises from 16 to 20, while the aggregate capital shortfall remains low at 0.3 percent of GDP.

19. Several sensitivity exercises were conducted to assess various risks (Figure 6). The results are presented below taking as a reference the sovereign debt distress scenario without the impact of the DTA transitional arrangement discussed in the previous paragraph.

- Market price revaluation of financial assets was applied to the amortized cost category, thereby capturing the risks to the economic value of bank security portfolios. The capital impact is small, at 45bps, because Brazilian banks classify most of their financial assets at fair value. The number of banks falling below the hurdle increases from 16 to 19, while the shortfall remains at 0.2 percent of GDP.

[14] Digital banks can have specific risks that may not be well-captured by the models used for this stress test, particularly considering that some of them have a loan portfolio that is narrowly focused on high-risk segments. The short time series available for most digital banks further exacerbates the difficulties in capturing their risks. BCB is recommended to develop models specifically for that cluster of banks.

[15] Banks can opt between a 7 and 10 year amortization period. For the purposes of this exercise, all banks are assumed to have a 7 year transition.

- NIM compression from greater competition by digital banks: the emergence of digital banks has reduced banking sector concentration and lending rates. The sensitivity exercise assumes fintech lenders increase their consumer credit market share by 50 percent, from about 5 to 7.5 percent. Bank-specific effects depend on loan portfolio exposure to fintech competition. Based on Xu (2026)[16], the scenario assumes a 30bps annual NIM compression throughout the stress test horizon. By end-2028, the aggregate CET1 impact is 85bps, with DSIBs most affected at 115bps. The number of banks below the hurdle rises from 16 to 20, while the aggregate capital shortfall increases to 0.3 percent of GDP.

- Additional stress on consumer credit probability of default: to address the possibility of a more notable deterioration of consumer credit, a sensitivity analysis was conducted where consumer credit probability of default increase by an additional 3pp in 2026 and 1.5pp in 2027, relative to the sovereign debt distress scenario. This results in an additional 90bps capital depletion on aggregate, through a combination of additional loan losses and foregone interest income from higher NPLs. DSIBs face a 100bps additional depletion, remaining on aggregate 112bps above their hurdle rate. The number of banks falling below the hurdle increases from 16 to 21, while the shortfall increases to 0.3 percent of GDP.

- Large exposures: the top 5 nonfinancial exposures[17] for each bank are assumed to default, under various assumptions for the loss-given-default (LGD) of the unsecured portion and a haircut of the value of collateral. The loss from each defaulting large exposure is calculated as

$$Loss = LGD \cdot \left(Exposure - \left(1 - \frac{collateral}{haircut}\right) Collateral\right) - Provisions$$

The capital impact is added to Y2 of the sovereign debt distress scenario. In the most adverse parameter configuration considered (75 percent unsecured LGD and 50 percent haircut on collateral), the aggregate CET1 declines to 8.3 percent, still above the hurdle rate at the banking system level.

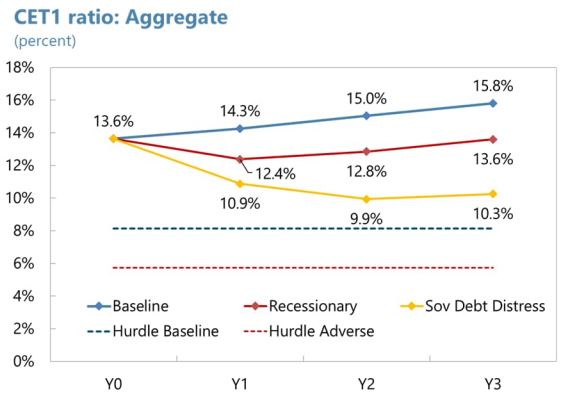
Default of Top 5 nonfinancial Large exposures, CET1 ratio (starting from CET1r=9.9%)

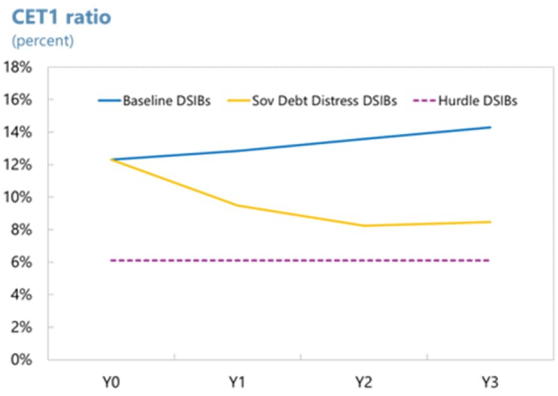
		Collateral haircut		
		0%	25%	50%
LGD	25%	9.4	9.4	9.4
	50%	8.9	8.9	8.9
	75%	8.4	8.4	8.3

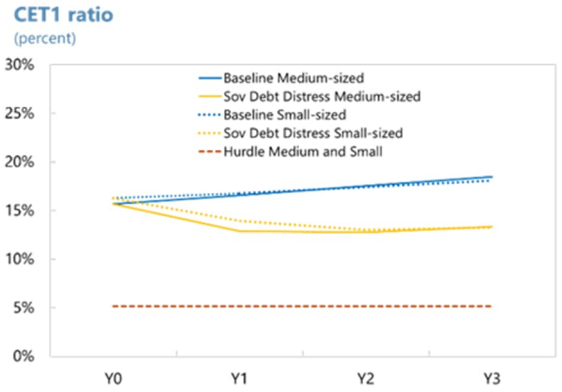
[16] Xu, Rui. "*Fintech Competition and Banks' Shrinking Margins in Brazil*", IMF Working Paper 2026, 007.

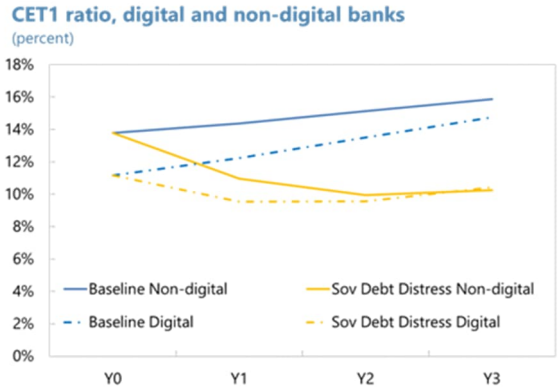
[17] For five banks in the sample, there were less than five nonfinancial exposures reported.

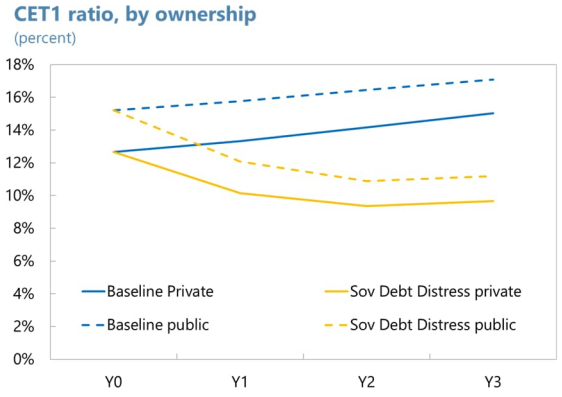
Figure 5. Brazil: Solvency Stress Test







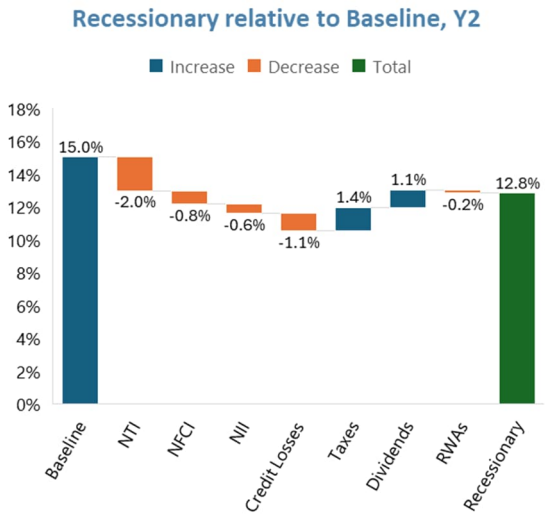


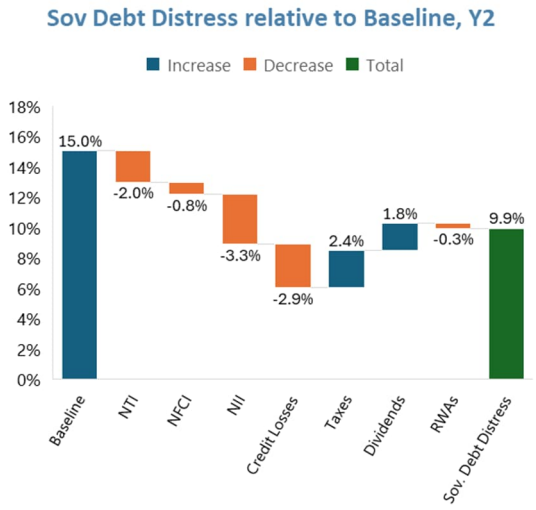


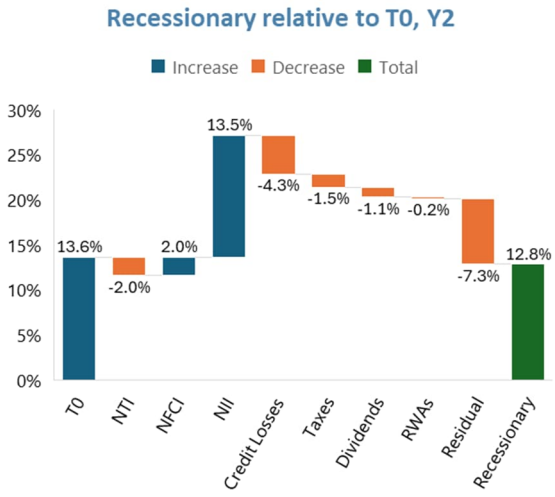
		Total banks in sample	Number of banks falling below hurdle		
			Baseline	Recessionary	Sov. Debt Distress
Total		83	3	4	16
By size	DSIBs	5	0	0	0
	Medium	12	0	2	2
	Small	66	3	2	14
By digital/non-digital	non-Digital	73	1	1	13
	Digital	10	2	3	3
By ownership	Private	73	2	4	15
	Public	10	1	0	1

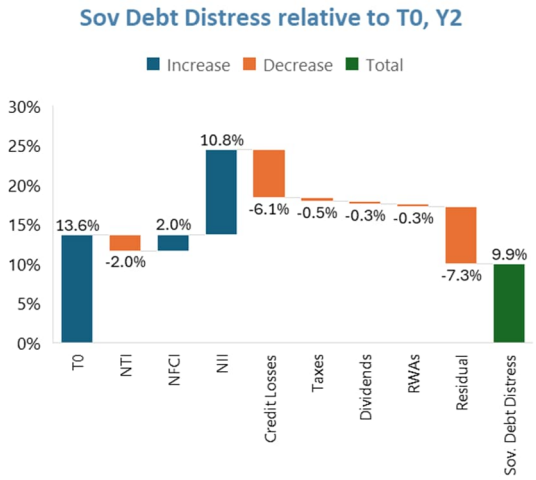
Source: IMF staff calculations.

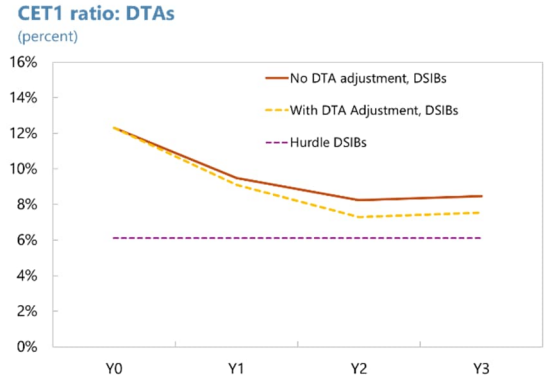
Figure 5. Brazil: Solvency Stress Test (Concluded)

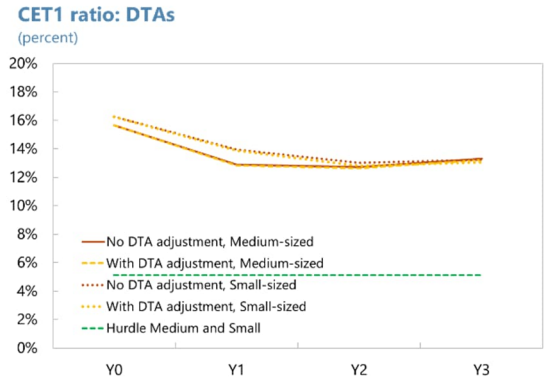






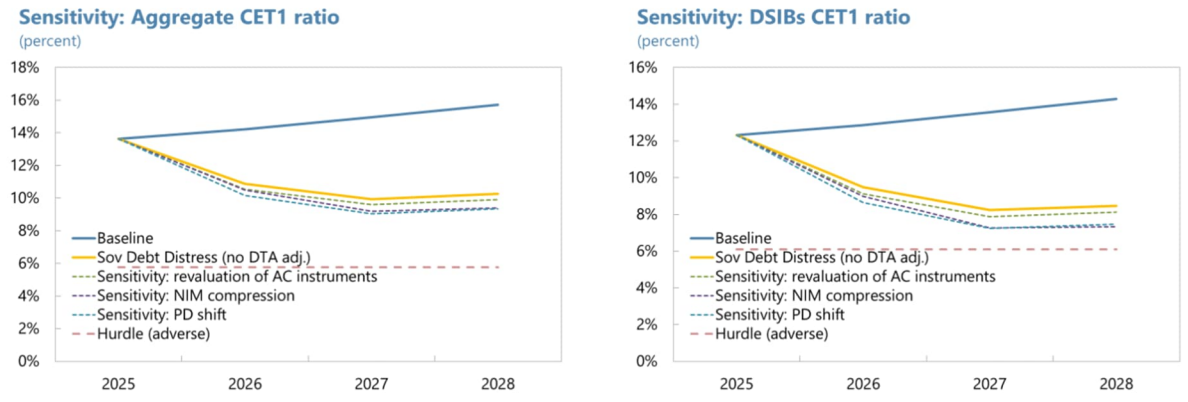






Source: IMF staff calculations.

Figure 6. Brazil: Solvency Stress Test, Sensitivity Analysis



Source: IMF staff calculations.

D. Bank Liquidity Stress Testing

20. Brazilian banks rely on deposits and secured borrowing for funding (Figure 7). Deposits constitute 56 percent of total funding, composed primarily of corporate (20 percent) and household (14 percent) counterparts, and are generally subject to a base reserve requirement of about 20 percent. Secured funding accounts for 24 percent of the system's funding, rising to 30 percent for DSIBs. This secured funding predominantly consists of overnight repos backed by sovereign securities, with investment funds acting as the main counterparties (78 percent). Notably, DSIBs operate consistently as net borrowers in the repo market.

21. On aggregate, banks exhibit robust structural liquidity buffers, though vulnerabilities exist in wholesale funding markets (Figure 7). Most banks comfortably exceed regulatory thresholds, with the system median Liquidity Coverage Ratio (LCR) at 205 percent and the Net Stable Funding Ratio (NSFR) at 121 percent, indicating sufficient stable funding to support long-term assets. While only the six largest DSIBs are legally bound by LCR and NSFR requirements, proxy indicators computed by the central bank for the broader system display similarly comfortable margins. DSIBs have the most stable LCR levels, with a median of 167 percent, but their heavy reliance on short-term secured funding exposes them to contingent liquidity risks and potential collateral calls during market corrections. The current zero percent runoff rate applied to sovereign-backed repos, while in line with international standards, may mask some of these underlying vulnerabilities by underestimating potential outflows.

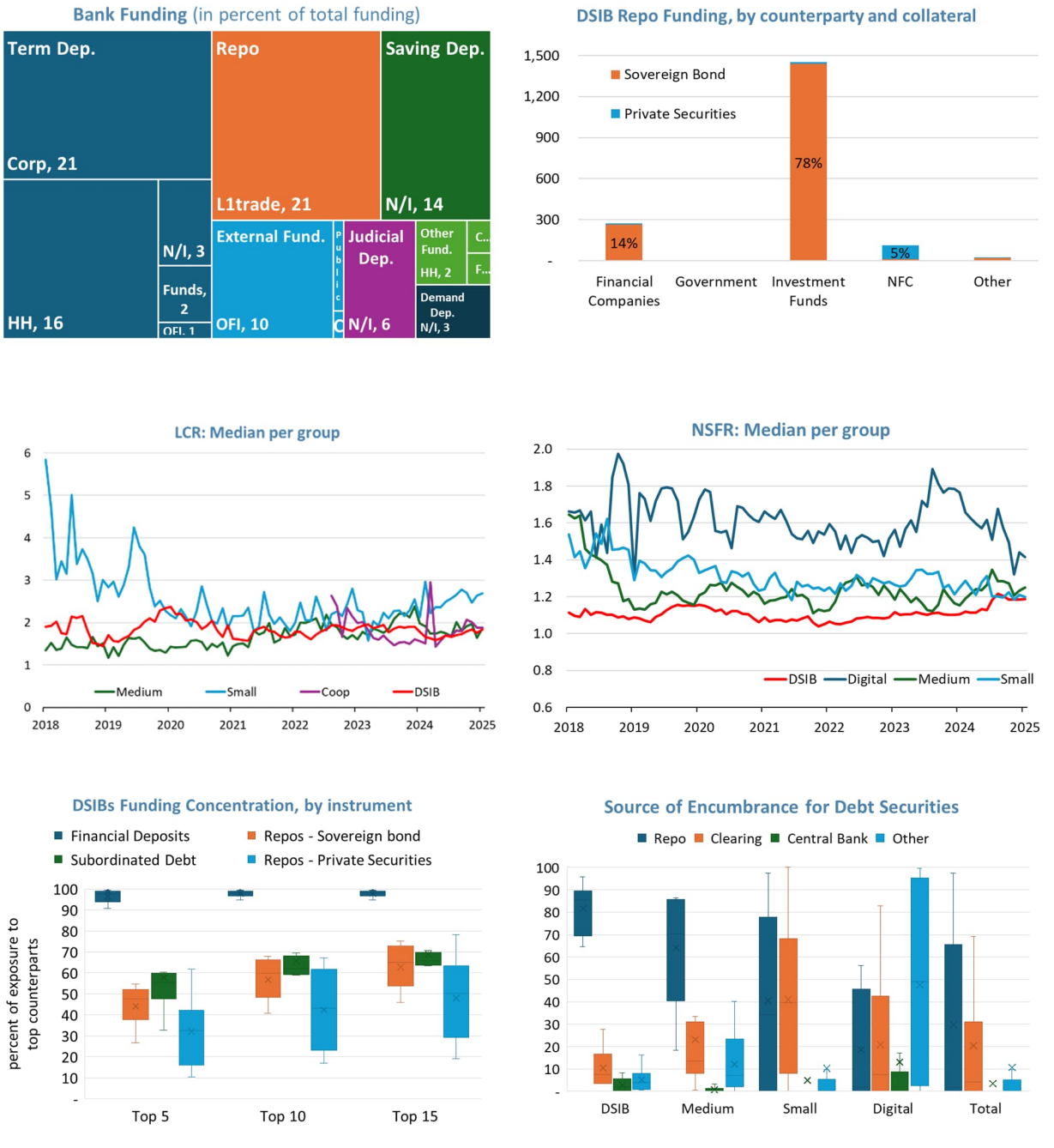
22. The results from a cash flow-based liquidity stress test indicate that banks can generally withstand scenarios of severe liquidity distress (Figure 8). Under both a one-week and one-month horizon, the aggregate counterbalancing capacity (CBC) remains adequate. While three banks experience a gross total shortfall of 30 basis points of the system's initial CBC, they hold sufficient alternative measures to cover the gap, primarily by curtailing the rollover of maturing credit. At the aggregate level, this result largely holds under a more severe haircut scenario, with gross shortfall rising to 33 basis points of the system's initial CBC while causing an additional overall decline of 7 percentage points of the system's initial CBC. DSIBs are the most impacted subgroup

due to their extensive secured funding positions, which may trigger sizable collateral calls following market shocks[18]. To strengthen the liquidity monitoring framework, the BCB could expand its dedicated liquidity templates, particularly to capture maturity ladders at least up to a quarter and to monitor liquidity risk in significant foreign currencies, such as the USD[19]. Additionally, the BCB should conduct targeted analyses of DSIBs to better capture contingent liquidity risks arising from repo market dynamics, collateral calls, and potential maturity mismatches.

[18] While systemic fire-sale risks are mitigated by the BCB's PU 550 market-making facility, DSIBs remain exposed to friction risks—such as the depletion of counterbalancing capacity required to meet implied haircuts if private repo funding is substituted with central bank facilities—as well as potential maturity mismatches between their repo and reverse-repo books.

[19] While the BCB currently leverages granular transaction data to construct maturity ladders internally, implementing standardized templates submitted directly by financial institutions would close existing data gaps on specific inflows/outflows and reduce operational burdens. Furthermore, these templates should explicitly capture maturity ladders in significant foreign currencies (e.g., USD) to allow for granular cash-flow stress testing beyond the cumulative data currently captured in the LCR and NSFR templates.

Figure 7. Brazil: Banks' Structural Liquidity



Sources: BCB, and IMF staff calculations.

Figure 8. Brazil: Counterbalancing Capacity and Cash-flow Liquidity Stress Test

Sources: BCB, and IMF staff calculations.

E. Investment Fund Risk Analysis

23. Investment funds make extensive use of reverse repo cash lending to banks. A decline in the market value of collateral posted by banks—involving longer-duration sovereign bonds—can trigger margin calls if haircut requirements are breached. If banks are unable to meet these calls, this may escalate into liquidity stress and, in extreme cases, default. In such events, funds take possession of the collateral and must liquidate it, exposing them to mark-to-market losses and market liquidity risk, especially under stressed conditions with declining bond prices. While leverage

in Brazilian funds is structurally low due to exposure-to-capital based regulation[20], indirect exposures through shareholdings generate extensive multi-layer interconnectedness. The analysis examines fund interconnectedness, key assets and funds, and contagion risks using network analysis and a fire sales model, reflecting widespread master–feeder and fund of funds structures based on direct equity type cross holdings.

24. These fund-to-fund interconnectedness via shareholdings imply that shocks originating in lower tier funds can propagate upward and outward across the system, amplifying systemic risk. Network analysis reveals that fund-to-fund chains can extend beyond ten layers, with some funds indirectly connected to more than 5,000 others (Figure 9, top figures and middle left figure). Spillovers through these multilayer connections could amplify shocks: estimated losses increase by about 38 percent on an unweighted basis and 14 percent when weighted by assets under management. The interconnectedness is driven primarily by professional investor funds, though retail funds also exhibit substantial connectivity (Figure 9, middle right table).

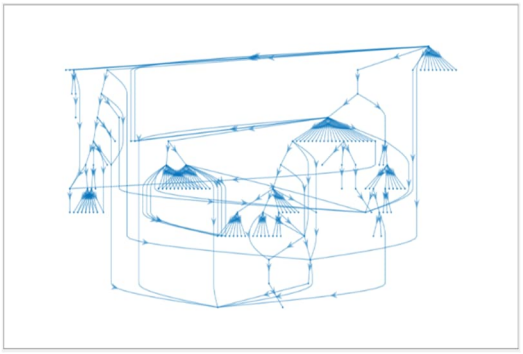
25. Analysis based on a contagion model that simulates an extreme sell-off of securities held by the funds (a "fire sale") indicates that large funds could experience substantial losses under adverse market shock scenarios. The model assesses price mediated contagion under market stress (Figure 9, bottom left figure). Cross-sectional average losses are around 23 percent, while losses for the most severely affected funds exceed 40 percent. Fire sale pressures are most pronounced for medium term government bonds, whereas second round price effects are generally contained under plausible assumptions such as relatively low bond yield volatility and large trade volume. However, sensitivity analyses show that contagion outcomes are parameter dependent and could become materially larger under higher volatility or alternative liquidation strategies (Figure 9, bottom right).

26. The findings have important implications for monitoring multi-layer fund-to-fund connections and the risks faced by large investment funds. Monitoring frameworks for financial stability should move beyond single layer exposure analysis to systematically incorporate multilayer fund-to-fund connections and indirect exposures. Further, enhanced oversight of tail risks in large investment funds is warranted, particularly given the potential for fire sale dynamics to amplify market stress. The analysis also supports a recommendation to grant the central bank explicit authority to conduct secondary market interventions for financial stability purposes, alongside the ability to establish liquidity facilities for NBFIs, thereby strengthening preparedness and operational autonomy in periods of acute market disruption.

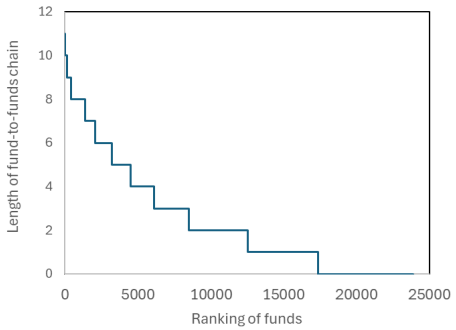
[20] The Brazilian fund industry remains heavily concentrated in fixed-income funds, which are subject to strict exposure caps defined as a share of NAV. These limits substantially reduce the likelihood of capital impairment or large negative returns. One caveat is that there is no such a limit on FIF (financial investment funds) and FIIM (Exchange Traded Funds).

Figure 9. Fund-to-Fund Network and MILD Model Results

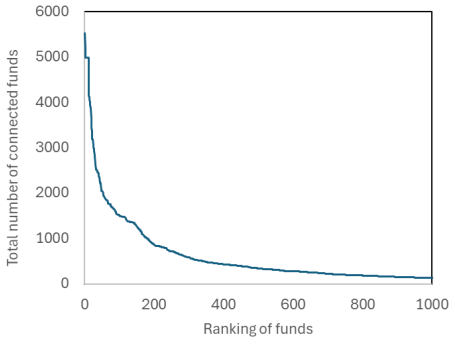
Fund-to-fund network for a single fund (top right) exhibit the longest chain; each node represents an individual fund and an arrow indicates who invests in who.



Cross-sectional distribution of fund-to-fund chain lengths across investment funds shows highly multi-layer nature.



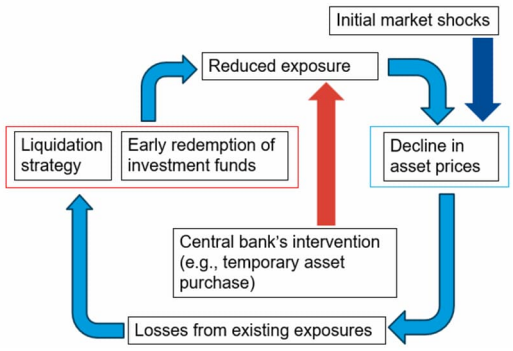
Cross-sectional distribution of fund-to-fund chain connectivity defined as total number of connected funds shows highly skewed spreads



Multi-layer network is prevalent across investor eligibility types.

	Investor type	Average	99%-tile	Max
Chain length	All	2.4	9	11
	Professional investors only	1.3	7	8
	Qualified investors only	0.9	5	8
	Retail investors	1.4	6	9
Connectivity	All	34.0	757	5526
	Professional investors only	16.3	364	3098
	Qualified investors only	7.1	111	448
	Retail investors	8.9	132	741

MILD model computes fund valuation losses from both first-round market shock and second-round fire-sales contagion effect.



Sensitivity analysis shows contagion effect is sensitive to parameters and can increase markedly under higher volatility or alternative liquidation strategies.

Scenario	Average	Median	25%-tile	5%-tile
Baseline: Only 1st-round effect	-22.9%	-22.7%	-28.7%	-42.2%
Baseline: 1st- and 2nd-round effects	-23.9%	-23.8%	-30.1%	-44.8%
Zero redemption	-22.9%	-22.7%	-28.7%	-42.2%
Liquidating floater first	-23.0%	-22.9%	-29.0%	-42.6%
10 times market impact	-24.6%	-24.6%	-31.0%	-46.1%

Sources: CVM, Bloomberg, and IMF staff calculations.

F. Bank Investment Fund Interconnectedness Analysis

27. The Brazilian financial system is highly interconnected through inter-sectoral loans, debt securities, and common exposure to government bonds (Figure 10). Banks act as the main credit hub for households, while NBFIs—especially money market and pension funds—channel domestic savings into sovereign debt, creating a strong "sovereign-fund-bank" nexus and a direct transmission channel for fiscal shocks. Investment funds provide liquidity through reverse repos to banks, which obtain government bonds from the BCB and lend them to funds to absorb cash. External exposure is concentrated in the corporate sector, which depends heavily on foreign equity and debt financing, implying that sudden capital flow reversals could directly affect the real economy. Aggregate network graphs and time-series data show these inter-sectoral exposures and the persistent role of funds as net lenders and banks as intermediaries.

28. To assess the systemic implications of these linkages, a contagion risk analysis was conducted incorporating banks and the investment fund sector. The model utilized (CoMap model) captures a high-dimensional network comprising 83 banks and approximately 32,000 investment funds, mapping over 183,000 bilateral connections.[21] These interlinkages span six distinct exposure layers: deposits, loans, bonds, repos, listed equity, and fund shares. The model simulates idiosyncratic shocks originating from individual banks to trace cascading credit defaults and funding withdrawals across the system. In this mechanism, investment funds act as critical transmitters; when their portfolios are revalued due to market shocks, losses are passed to investors—including other funds—and redemption pressures are met first by depleting cash liquidity before triggering asset sell-offs.

29. Results from the contagion simulations indicate that four DSIBs sit at the core of the network, exhibiting the highest contagion impact, particularly on medium-sized banks (Figure 11). Medium-sized banks themselves are highly interconnected and present notable vulnerabilities; several act as central nodes within small-bank clusters, representing potential tipping points for systemic contagion. Notably, the analysis demonstrates that the inclusion of investment funds in the network further amplifies systemic risk. Compared to a banks-only network, the bank-fund network generates higher contagion overall, leading to more frequent instances of both simulated defaults and severe distress. The analysis showed that no individual bank currently resides in the most critical quadrant representing simultaneously high contagion and high vulnerability.

30. These findings are subject to methodological caveats. The CoMap simulation is designed to stress the system by modeling cascading defaults without incorporating potential behavioral mitigating actions by the institutions or extraordinary liquidity interventions by authorities. Furthermore, the completeness of the contagion mapping is partially constrained by the exclusion of insurers and pension funds from the network due to data limitations. Additionally, while data on repo volumes secured by government bonds was incorporated, a more granular mapping of the underlying collateral at security level is required to fully model the dynamics of secured funding runs

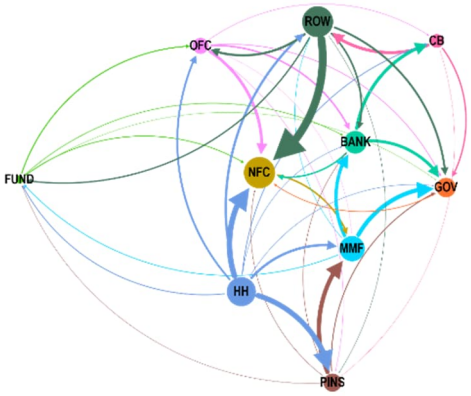
[21] This analysis extended the CoMap model from G. Covi, M.Z. Gorpe, and C. Kok. "CoMap: Mapping Contagion in the Euro Area Banking Sector in: Journal of Financial Stability 53 (2021). Link

and collateral fire sales within a network setting. Finally, while the model robustly identifies structural network vulnerabilities, the magnitude of the simulated impacts should be interpreted as a severe tail-risk shock rather than a baseline projection.

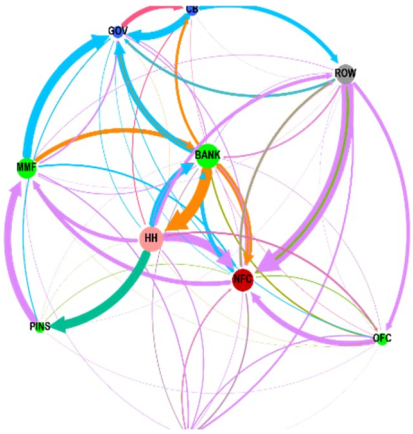
31. To complement the comprehensive systemic risk surveillance of the BCB, the BCB implement integrated model-based metrics, similar to the CoMap approach, to routinely monitor contagion and vulnerabilities across the financial system. Given the authorities' extensive granular data from trading platforms, credit registries, and regulatory reporting, efforts should focus on integrating and structuring these disparate datasets into a unified analytical infrastructure. This is essential for incorporating NBFIs—notably pension funds, insurers, and investment funds—into routine contagion analysis, given their potential to amplify systemic shocks. By leveraging its rich data infrastructure to apply data-driven calibrations to assumptions around fire-sale dynamics and funding withdrawals, the BCB can robustly identify non-linear feedback loops across the financial system. To support data reconciliation, banks should also be required to map individual entities—identified by CNPJ for domestic and LEI for foreign entities—to their internal "Groups of Connected Counterparties" in Large Exposures reporting.

Figure 10. Brazil: Financial System Interconnectedness

Systemwide Network (2025q2): Net nominal exposures; color by sector matching source of credit

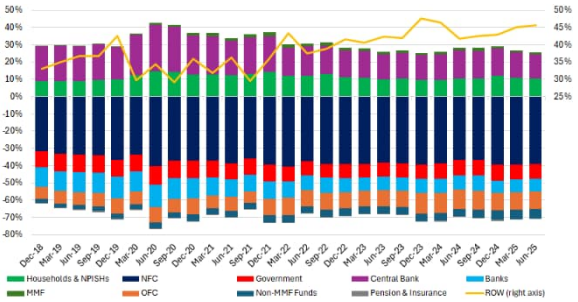


Systemwide Network (2025q2): Nominal exposures; color by instrument type; intensity-filtered



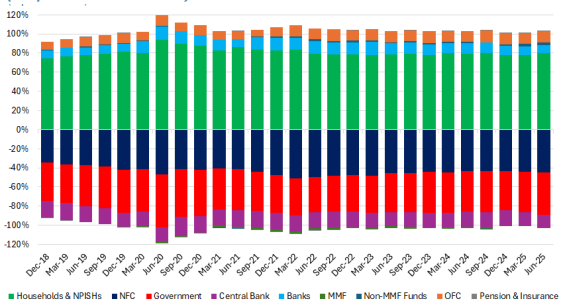
Net Financial Position vis-a-vis the Rest of the World

(in percent of GDP)



Net Financial Position Domestically

(in percent of GDP)



Heatmap of Interlinkages

(in billions R$)

CREDITOR \ BORROWER	BANK	FUND	PINS	OFC	CB	GOV	NFC	HH	ROW	TOTAL CREDIT	NET CREDIT
BANK	2,119	698	14	471	1,934	2,619	3,122	4,105	400	15,482	131
FUND	2,876	5,943	4	693	0	3,226	1,747	54	223	14,765	-333
PINS	159	2,684	136	23	0	410	226	98	10	3,745	-54
OFC	1,363	213	133	312	147	322	2,187	87	155	4,918	282
CB	11	0	1	0	0	2,635	0	0	1,880	4,527	103
GOV	897	615	0	17	1,883	846	503	91	35	4,886	-6,765
NFC	2,331	2,312	102	554	0	196	6,497	0	1,558	13,550	-10,654
HH	4,263	1,838	3,320	1,140	358	254	3,412	0	1,367	15,952	11,486
ROW	1,331	795	91	1,428	101	1,143	6,510	31	0	11,430	5,803
TOTAL DEBT	15,350	15,099	3,799	4,636	4,423	11,651	24,204	4,466	5,627	89,255	

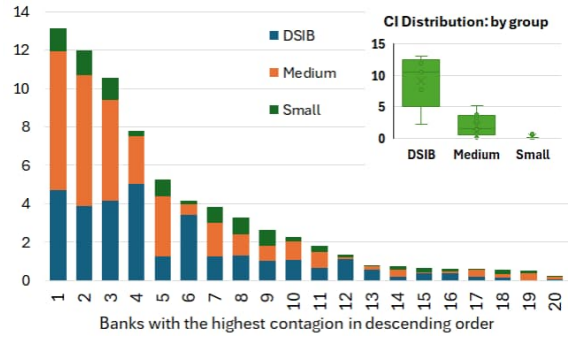
Sources: BCB's Financial Asset Matrix (Matriz de Patrimônio Financeiro), and IMF staff calculations.

Note: The sectors are labeled as follows in this Figure: non-financial corporations (NFC), central bank (CB), credit institutions (BANK), money market funds (MMF), non-MMF investment funds (FUND), other financial companies (OFC), pension funds and insurers (PINS), government (GOV), households (HH), and rest of the world (ROW). Edge size (i.e., line thickness) is proportional to the magnitude of the bilaterally-netted exposures between nodes on the top-left panel and to the instrument-level gross exposures on the top-right panel. The largest of such exposures amount to BRL 6.5 trillion represented by the dark green line between ROW and NFC on the top-left panel and BRL 4.9 trillion represented by the pink line between ROW and NFC on the top-right panel. Node size reflects in each panel is proportional to the weighted degree of edges (number of edges weighted by the size of the edges). Arrows point in the direction of the debtor node away from the creditor node for each bilateral exposure.

Figure 11. Brazil: Bank-Fund Contagion Risk Analysis

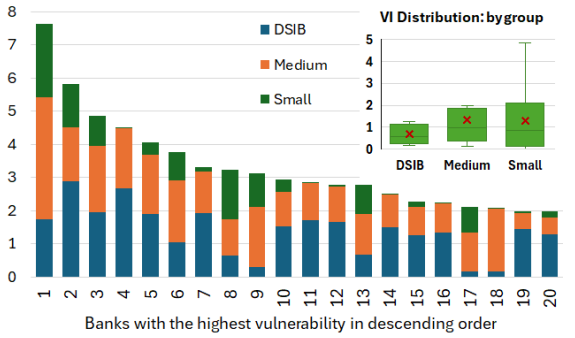
Contagion Index (CI): by recipient of contagion

(contribution to each group's loss in percent of system capital)



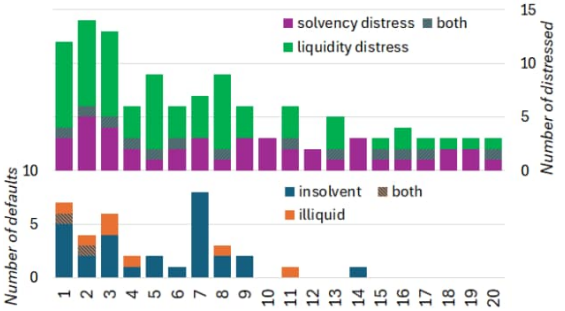
Vulnerability Index (VI): by source of contagion

(loss contribution of each group in percent of recipient capital)



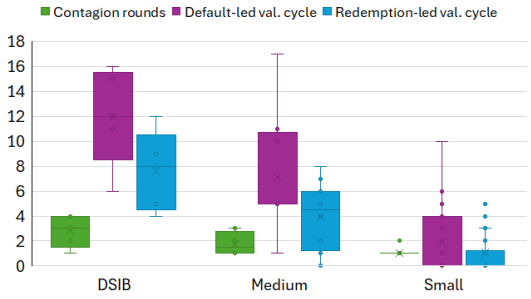
Contagion Defaults and Distresses

(number of impacted banks by the most contagious 20 banks)



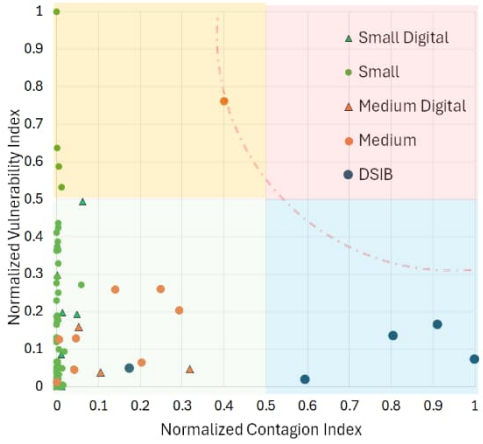
Contagion Amplification Effects

(Distribution of simulations across groups)



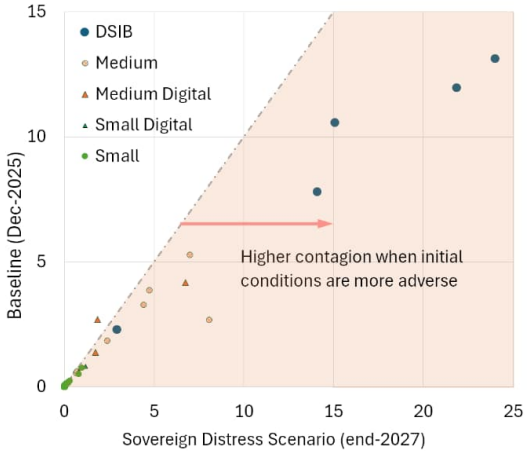
Systemic Risk Map

(each index normalized)



Contagion Matrix: by group

(aggregated losses in percent of system capital)



Sources: BCB, and IMF staff calculations.

Note: The 1-to-20 numbering on x-axis in the first three charts above only refer to the ranking based on contagion index (CI) and vulnerability index (VI), respectively. CI is the average losses to the banks comprising 83 deposit-taking institutions normalized by their capital. For example, the hypothetical default of the most contagious bank, denoted as "1", results in the average losses to the other 20 entities of around 13 percent of their capital, of which 5 pps on DSIBs and 7 pps on medium-sized banks. The most vulnerable bank as measured by VI incurs average losses of about 7.5 percent of its capital across all independent simulations, following the hypothetical default of each bank in the network, of which around 3.5 pps due to Medium-sized banks.

G. Insurance Solvency Stress Test

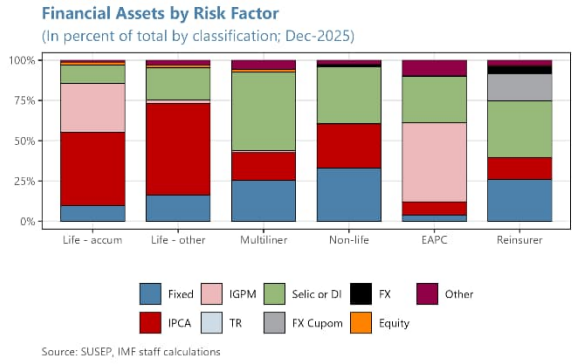
32. The insurance solvency stress test assessed the resilience of insurers' and reinsurers' solvency under adverse financial-market scenarios. A market-risk-focused stress test was conducted for insurers and reinsurers. The analysis applied the same stress scenarios as those used for banking sector through a cash-flow-based revaluation approach, excluding unit-linked products. Market-risk capital requirements were adjusted after revaluation, available capital adjusted for quality, and solvency positions measured by the solvency ratio defined as available capital relative to required capital. The scope of the exercise comprised 149 institutions, accounting for 96 percent of the total assets as of December 2025.

33. Stress test results indicate that system solvency remains strong, although some institutions fall below the minimum capital requirement. The insurance sector entered the stress test with broadly stable solvency, with conservative assets and liability compositions (Figure 12, upper panels). Under the stress scenario, insurers experienced system-wide losses on financial assets, with smaller losses for reinsurers; revaluation effects on insurance liabilities varied more markedly, with life insurers experiencing the largest effects (Figure 12, middle panels). While liability revaluation provided partial relief for some institutions, asset-side losses dominated, resulting in overall negative impacts on capital (Figure 12, bottom left). At the system level (Figure 16, bottom right), the solvency ratio declined from 185 to 177, with 6 percent of institutions falling below 100 percent—including one S1 institution[22]. These results are primarily driven by weaker starting solvency (median of 112 versus a system-wide median of 190), as well as asset and liability mismatch. An additional sensitivity analysis assessed the impact of the spread between IPCA and IGP-M, which can adversely affect the solvency position, particularly for life insurers.

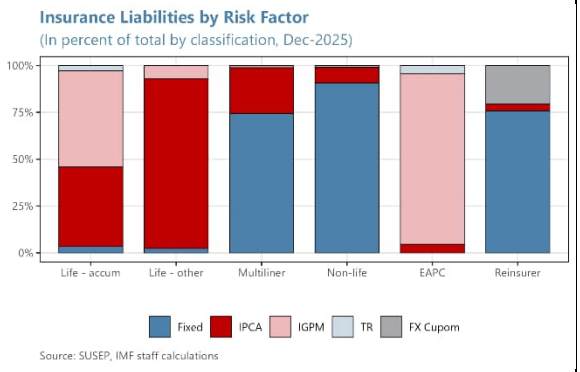
[22] S1 refers to the highest prudential segment under SUSEP's proportional regulatory framework. The classification follows publicly defined regulatory criteria based on size and complexity.

Figure 12. Insurance Sector Risk Composition and Solvency Stress Test Results

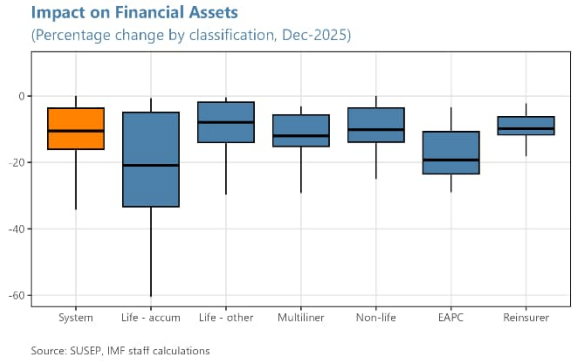
Assets are mainly Selic and inflation-linked, with relevant FX exposure for reinsurers.



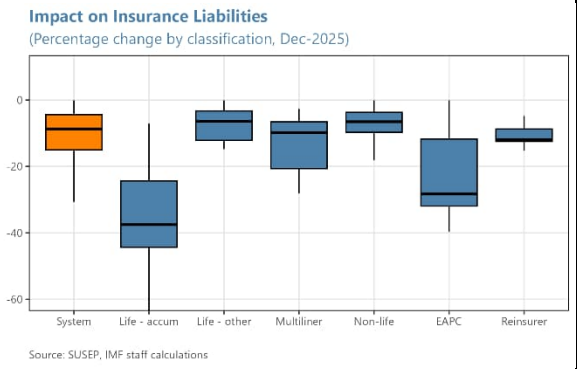
Liabilities are mostly fixed-rate, and inflation-linked exposures.



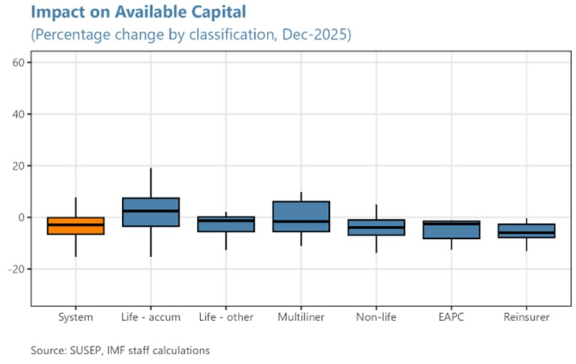
System-wide financial asset losses occur, with relatively milder impacts for reinsurers.



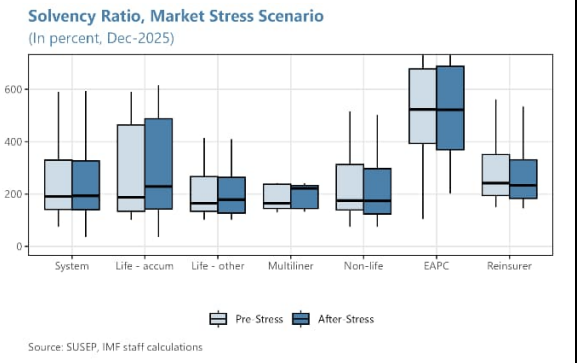
Liability revaluations are uneven across institutions, with the largest effects for life insurers.



Capital impacts are mostly negative across insurers, although some institutions experience positive effects.



Solvency ratios fall across under the stress scenario, but most institutions retain strong buffers.



Sources: SUSEP, and IMF staff calculations.

H. Climate Risk Analysis

34. The climate risk analysis assessed banks' exposure to physical climate risks, their impacts, and climate risk transfer structures. Hazard probabilities were estimated using historical disasters, climate conditions, shocks, and structural trends, treating each year as a scenario. Bank loan portfolios were mapped at municipality level to current and future hazard probabilities (SSP3, 90th percentile) to identify concentration and diversification patterns. Damage estimates were first derived separately for each hazard type—droughts, floods, and storms—and then aggregated, which were translated into portfolio losses through estimated impacts on physical assets and agricultural productivity, scaled to the economy and fed into the OMEGA model for Brazil[23] to derive sectoral output shocks. These affected banks through LGD and PD channels—via recovery rates and corporate revenues/assets, respectively. Since part of the losses is transferred through insurance and reinsurance, especially for collateralized exposures, climate-related reinsurance flows between banks, insurers, and reinsurers were analyzed using a network framework.

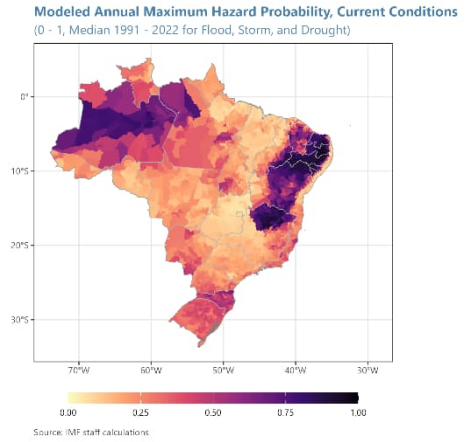
35. Physical climate risks generate heterogeneous but currently limited bank impacts, reflecting differences in geographic loan exposures, though effects would rise with more severe and widespread hazards. Municipalities exhibit persistent droughts, shifting floods, storm intensification, and deteriorating low-risk regimes. Credit losses arise mainly through LGD effects—especially for mortgage and real estate exposures—while PD impacts are smaller and sector-driven (Figure 13). System-wide capital effects remain limited, but dispersion across banks is significant. More severe and geographically extensive hazards would materially increase annual impacts. Results should be interpreted cautiously given analytical limitations.

36. Insurance links banks to reinsurers, spreading risk but creating dependencies that can transmit shock to banks and creditors. Part of bank losses would be transferred through insurance, linking banks, insurers, and ultimately reinsurers. The reinsurance flow analysis showed that the reinsurance structure combines system-wide diversification with pronounced bilateral dependencies (Figure 13, bottom right), particularly when losses materialize. While reinsurance facilitates broad risk sharing, concentrated bilateral relationships may amplify pricing cycles, constrain capacity, and generate settlement frictions, potentially transmitting stress back to banks that require insurance for their loan portfolios.

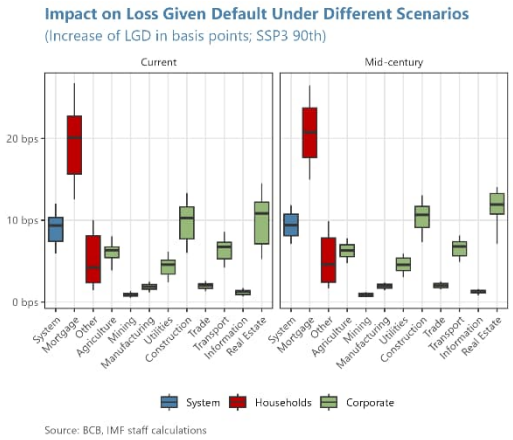
[23] Open-economy Multi-sector Endogenous Growth Assessment (OMEGA) model, a dynamic stochastic general equilibrium (DSGE) framework developed at the World Bank for policy analysis in emerging market economies (Schoder and Tercioglu, 2025; Schoder, Fernando, Fleischhaker, and Oliveira, 2025)

Figure 13. Climate Risk Analysis—Results

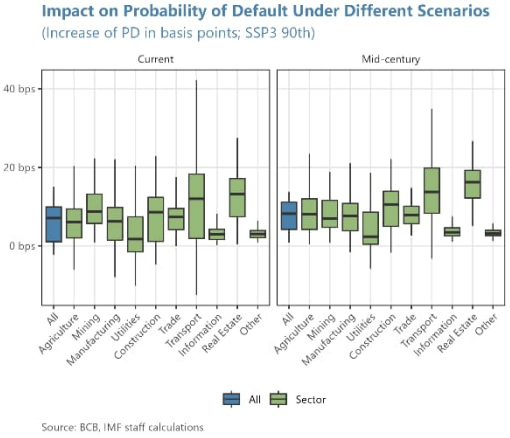
Hazard probabilities show strong spatial heterogeneity.



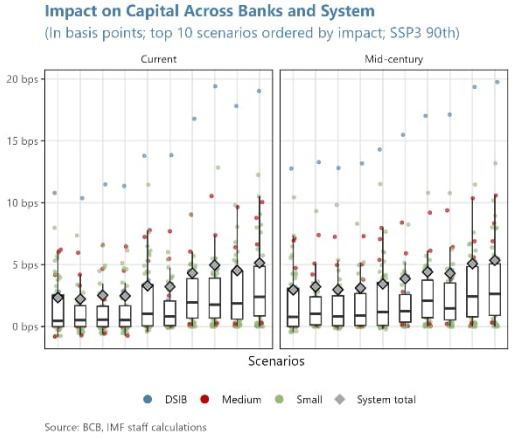
LGD increases are larger for mortgages and real estate.



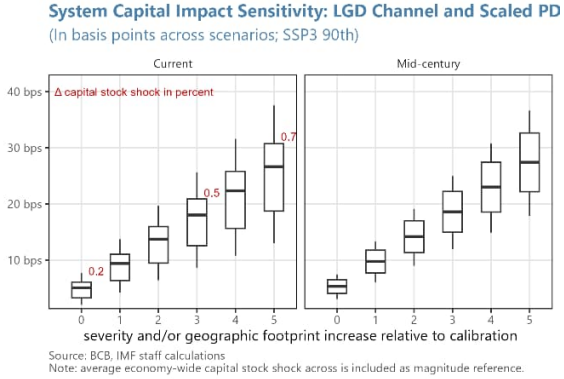
PD increases are sector-specific, highest for transport.



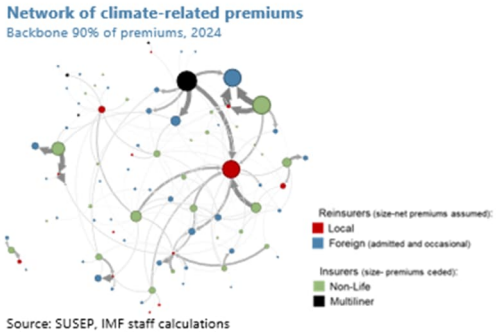
Capital impacts are limited, but with high dispersion.



LGD-driven capital impacts would increase nonlinearly as the severity and extent of hazards increase.



Climate-related reinsurance happens in hub-centered clusters with selective bilateral premium flows.



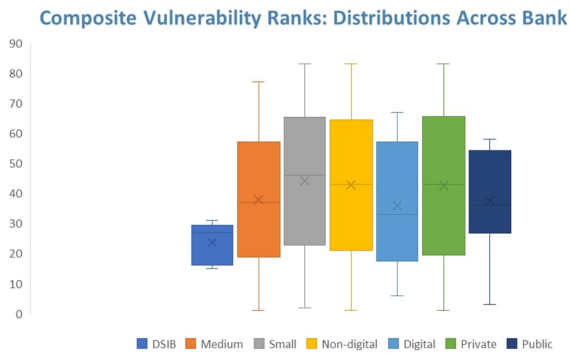
Sources: BCB, SUSEP, and IMF staff calculations.

I. Holistic Vulnerability Analysis for Banks

37. The holistic analysis combines various metrics of vulnerability into a single index. Banks are ranked from Rank 1 (most vulnerable) to Rank 83 (least vulnerable) for various pre-defined metrics. The metrics included initial conditions on capital, profitability and liquidity, as well as the projected results from the solvency, liquidity, interconnectedness and climate risk analysis. A weighted-average of the rankings for the various criteria (weights displayed in Figure 14) reveals that DSIBs tend to display more vulnerability than other clusters across the various vulnerability metrics, highlighting the importance of the BCB's ongoing oversight of these institutions and the appropriateness of the additional prudential requirements applied to DSIBs versus other financial institutions.

Figure 14. Brazil: Holistic Vulnerability Assessment for Banks

Criteria	Weight
CAR (T0)	10%
RoA (T0)	5%
Solvency stress test: CET1 ratio Y2 adverse - Y0	20%
Solvency stress test: CET1 ratio under adverse Y2 - hurdle	20%
Liquidity ST shortfall (min cumul. along horizon over initial LA)	15%
LCR	10%
Default cascade simulations: Vulnerability to banks	10%
Vulnerability to climate physical risk: max. impact in capital ratio in basis points.	10%



Sources: BCB and IMF staff calculations

Note: The composite vulnerability index is a weighted average of the ranking of banks across various metrics. The table on the left panel shows the metrics used and their corresponding weights. For each of these metrics, banks were assigned a ranking from 1 (most vulnerable) to 83 (least vulnerable).

J. Recommendations from the Systemic Risk Analysis

38. BCB's stress testing framework should be enhanced to better capture risks from both non-bank financial institutions and market-credit interactions. In addition to banks, stress tests should cover large fintech institutions with bank-like business models that could generate systemic effects, even when operating without a banking license, particularly given their growing importance in segments such as credit cards. Market risk analysis should also incorporate shocks to sovereign and corporate credit risk premia, as stress test results indicate that banking system capital is very sensitive to such shocks, especially for sovereign exposures due to banks' sizeable holdings of government debt. Furthermore, BCB should consider aligning its credit risk stress testing methodology with IFRS 9 principles to better capture the earlier recognition of credit deterioration and associated loan losses, including cliff effects arising from transitions between Stage 1 and Stage 2 provisioning regimes.

39. Adopt a framework where institutions report the specific individual entities (identified by CNPJ for domestic, LEI for foreign) that form their internal "Groups of Connected Counterparties". Current large exposure reporting is not well-suited to analyze common exposures across banks, as groups of connected counterparties are defined by each bank and do not have common identifiers. Collecting data on identifiers of individual entities within each group of connected counterparties would be a step forward in allowing BCB to analyze correlated risks.

40. SUSEP should systematically use stress testing and strengthen the analysis of climate risk transfer mechanisms. Stress testing should continue to complement the prudential framework, with outcomes informing the review of ORSA submissions. Climate-related risk transfer through reinsurance and alternative mechanisms, including insurance-linked securities, should be assessed in a structured manner to identify potential repercussions for insurance conditions and the broader financial system.

41. Strengthen structured inter-agency collaboration to assess materiality of climate-related financial risks. MoF, BCB, SUSEP, MDR, MCTI, MAPA, CEMADEN, and other agencies should continue to engage in structured inter-agency collaboration to build a shared understanding of the materiality of climate-related risks for the financial system, leveraging each agency's data and analytical capabilities to support risk identification and quantification. A broader scope agency, such as the Ministry of Finance, should lead efforts.

FINANCIAL SECTOR OVERSIGHT

42. Financial stability oversight is the responsibility of the BCB, which also leads regulation and supervision of banks and oversight of payment systems and infrastructure. The Brazilian Securities and Exchange Commission (CVM) regulates and supervises securities markets and investment funds, while the Superintendency of Insurance (SUSEP) is responsible for insurance supervision. Self-regulatory organizations are widely relied on for oversight of securities markets and infrastructure. The Conselho Monetario Nacional (CMN), composed of the Minister of Finance, the Minister of Planning and Budget, and the BCB Governor, sets monetary, credit, and financial-sector regulatory policy. These organizations coordinate regularly through information and data sharing, the CMN and various bilateral arrangements, with opportunities to strengthen this coordination, especially in new areas, noted throughout this report.

A. Macroprudential Policy

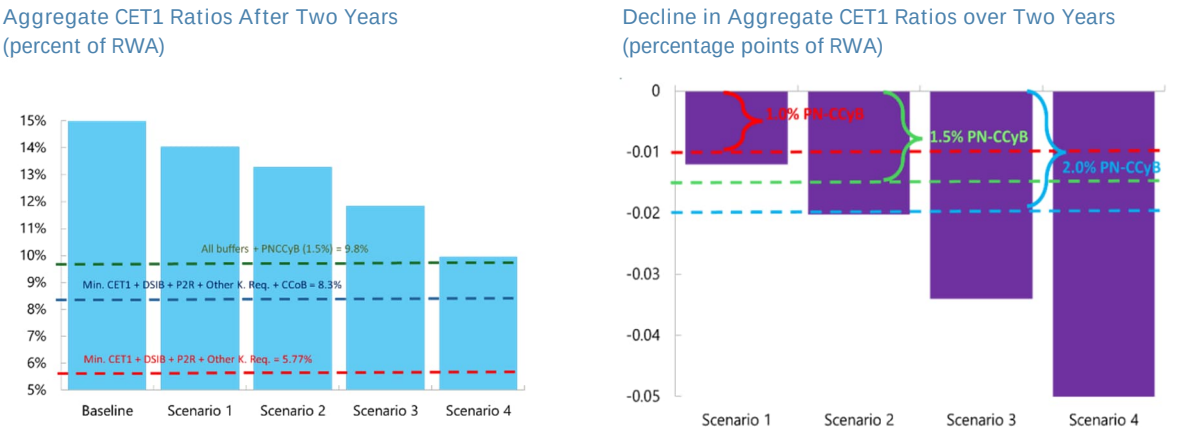
43. The institutional architecture for macroprudential policy has strengthened materially with a broad toolkit in place. Systemic risk monitoring, expanded stress testing, contagion analysis, and system-wide monitoring tools, and communication have improved. As market-based credit, NBFIs, and crypto-asset activities expand, the framework should ensure that the BCB has sufficient mandate, operational autonomy, and coordination mechanisms to address systemic risks beyond banking. The toolkit has also been used operationally to support resilience through the cycle. During Covid, the authorities temporarily released the CCoB, restricted bank dividend payouts, and eased some corporate-sector capital requirements to sustain credit. Reserve requirements have

continued to be used selectively to address liquidity strains. The CCyB has remained at zero and other macroprudential tools are generally not adjusted on a regular schedule.

44. The authorities are moving toward a positive-neutral CCyB (PN-CCyB) framework. Calibration of an indicative PN-CCyB range of 1–2 percent draws on the FSAP stress-test framework and macroeconomic scenarios of increasing severity (Figure 15). The implied CET1 ratio depletion suggests that releasing a 1.5 percent PN-CCyB—the mid-point in the range considered—would fully absorb the aggregate capital decline in the first scenario and largely absorb it in the second. Proper calibration should also ultimately draw on multiple approaches and be guided by policy judgment, taking into account scenario selection and model uncertainty. Furthermore, to support continued credit provision, calibration should also ensure that the neutral rate exceeds expected CET1 depletion by a prudent margin.

45. The case for a borrower-based cap on household payment capacity has strengthened as household indebtedness has risen (Figure 16). Counterfactual simulations indicate that a 40 percent DSTI cap on 2025 originations would have lowered mean DSTI ratio by 5 percentage points (excluding mortgages and most credit card loans) and reduced outstanding household credit by about 5.6 percent. Alternative thresholds of 35 and 45 percent would have directionally similar impact, with larger reductions under tighter calibration.[24]

Figure 15. Brazil: Positive Neutral CCyB—An Indicative Range Informed by Bank Solvency Stress Test



Source: IMF staff calculations.

Note: Building on the FSAP solvency stress test models, Panel A depicts four counterfactual macroeconomic scenarios of increasing severity, showing how the bank solvency stress test informs the calibration of a positive neutral CCyB. The scenarios span from a mild adverse layer relative to the baseline case (Scenario 1) to the full adverse fiscal scenario (Scenario 4). The green line assumes a PN-CCyB equal to 1.5 percent, equal to the midpoint of the range considered (1-2 percent). The horizon is set at two years, which is where the aggregate CET1 impact is largest in the stress tests. Panel B contrasts the implied CET1 ratio depletion under the four scenarios considered with the release of three alternative values of the PN-CCyB within the range considered: 1.0, 1.5 and 2.0 percent.

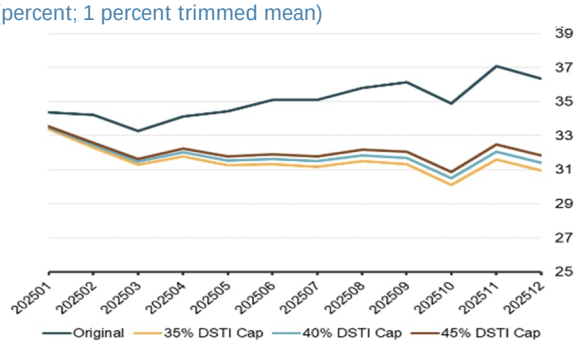
[24] These simulations do not constitute a full-fledged benefit assessment as they do not quantify the resulting effects on borrower PDs/LGDs or on banks' capital. Fuller assessments, such as in recent FSAPs for Japan and Switzerland, typically require richer borrower- and loan-level microdata.

Figure 16. Brazil: DSTI Caps—A Counterfactual Calculation

Total Outstanding Loans
(BRL billion, December 2025)

Credit Modality	Original	40% DSTI Cap		
		Counterfactual	Impact ($)	Impact (%)
Vehicle	406.1	314.4	91.7	-22.6
Non-Payroll	368.1	299.4	68.7	-18.7
Payroll deducted	751.7	690.9	60.8	-8.1
Other credits	261.5	245.8	15.7	-6.0
Rural	683.2	674.9	8.3	-1.2
Credit card	715.5	710.1	5.4	-0.8
Housing	1,315.2	1,315.2	-	0.0
Total	**4,501.3**	**4,250.7**	**250.6**	**-5.6**

DSTI Ratios under Counterfactual DSTI Caps
(percent; 1 percent trimmed mean)



Sources: BCB, and IMF staff calculations.

Note: Panel A reports the observed ("original") and counterfactual levels of household debt by credit type by the end of 2025 with a counterfactual limit of 40 percent at credit origination. Counterfactual simulations focus on credit originated throughout the year 2025. The calculations exclude mortgages. They also exclude several types of credit card use: one-time payments; installment payment financed by the merchant; revolving credit; installment payments financed by the bank, but the statement installment occurs after a revolving credit card. Only two types of credit cards are considered when doing the counterfactual simulations: when the installment payment is financed by the bank and the customer makes an installment purchase with interest charged by the financial institution, or at the time of payment, the customer chooses to split the outstanding balance into installments with the financial institution, subject to interest. Panel B reproduces the observed and counterfactual mean debt-service to income ratios (after trimming at 1 percent) with three alternative limits considered: 35, 40, and 45 percent.

B. Banking Supervision

46. Brazil's banking supervisory system employs modern regulatory and supervisory frameworks and reflects strong improvements since the 2018 FSAP. An assessment of the Basel Core Principles for Banking Supervision[25] (BCP) found that the BCB has developed a sophisticated risk-based supervisory framework, world-class data and analytical capabilities, and enhanced regulatory standards largely aligned with international standards. The authorities have made progress in strengthening capital adequacy, liquidity frameworks, and governance standards, built up detailed off-site surveillance systems and maintained supervisory engagement domestically and through international cooperation. However, some serious challenges remain, often stemming from persistent staffing shortages and insufficient legal protections.

47. The BCB has a comprehensive mandate as Brazil's sole banking supervisor with broad powers covering licensing, supervision, enforcement, and crisis management. Formal independence of the BCB has improved. However, operational independence remains constrained by a lack of budget autonomy. The BCB has benefited from the ability to attract a high caliber of staff, and professionalism remains very high but in recent years staffing challenges have become critical. Uncompetitive salaries and expected retirements further exacerbate shortages. Insufficient legal protection for supervisors creates significant pressures and this challenge is particularly pronounced in cases that demand complex judgments or involve strong enforcement actions. Strengthening the BCB's operational autonomy and enshrining robust legal protections for staff are vital to safeguard impartial and effective supervision.

[25] Core Principles for effective banking supervision

48. Well-established licensing processes include rigorous assessments of ownership structure and governance, and the regulatory capital and liquidity framework is well-aligned with Basel III standards and includes the use of forward-looking stress testing and capital planning, Banks are required to have in place comprehensive, board-led risk management frameworks—however, supervisory resource constraints limit the depth and frequency of intrusive verification in certain areas, including the regular validation and challenge of bank-internal models. While recovery planning for the largest banks has been materially strengthened, extending proportionate recovery planning starting with a selected number of medium-sized or higher-risk institutions and reinforcing specialist supervisory capacity—especially for complex risk measurement, stress testing, and internal models—would further enhance the effectiveness of supervision. Brazil adopted IFRS 9 in January 2025, moving from regulator-defined provisioning to bank-driven ECL estimation, aligning financial reporting with global practices. To mitigate the increased subjectivity inherent in forward-looking provisioning, the BCB is encouraged to continue building internal challenger models, strengthen LGD estimation, and develop a model for large corporates.

49. The regulatory framework for related parties' transactions has been enhanced with prudential limits but still retains gaps. The definitions of 'related party' should capture a wider scope of interests and transaction types. The BCB should have the power to exert discretion on a case-by-case basis when applying this definition. and related party transactions exposures exceeding specific amounts or otherwise posing special risks should be subject to board approval. Prudential limits are strict, but transactions exempted from prudential limits are not required to be collateralized nor deducted from capital.

50. The BCB employs a comprehensive, risk-based approach to supervision aimed at identifying, assessing, and mitigating risks but supervisory effectiveness is constrained by a limited number of on-site inspections and a reduction in the scope and rigor of offsite supervision. Advanced off-site monitoring, supported by extensive data collection and sophisticated analytical tools, are a strength but the actual depth and rigor of their findings thoroughness of off-site supervision reports vary considerably. At the same time, supervision heavily relies on off-site supervision as the frequency and depth of onsite inspections were severely reduced. The limited onsite presence and the limited depth of offsite supervision hamper the BCB's ability to fully understand banks' actual risk management practices and diminish its capacity to detect and address vulnerabilities. To establish a more balanced and effective supervisory framework, it is essential not only to increase resource allocation for both off-site analyses and on-site inspections but also to recalibrate and strengthen the supervisory approach and supervisory tools.

51. Enhancing the framework for identifying systemically important banks to better capture diverse risk profiles would further improve risk-based supervision. The definition triggers regulatory requirements, supervisory intensity, and resource allocation. While the credit risk management framework provides a secondary risk-based differentiation layer, it cannot fully offset foundational classification gaps. Incorporating dynamic quantitative and qualitative indicators into

the primary framework would better align supervisory efforts with actual risk profiles and systemic impact.

52. The BCB should more consistently translate corrective and enforcement powers into early and decisive supervisory intervention. In practice, supervisory responses rely heavily on informal dialogue and moral suasion over formal communications of findings, information requests, and iterative follow-up. To enhance the effectiveness of supervisory action, the BCB would benefit from establishing a structured escalation regime to discipline discretion that promotes the timely use of formal corrective supervisory measures, ensures the application of credible sanctions, and strengthens supervisory practices oriented toward early intervention.

C. Securities and Derivatives Markets

53. Brazil has made progress since the 2018 FSAP in maintaining a strong regulatory framework for its growing securities markets, which needs to continue to evolve. Significant regulatory updates have been made particularly in the area of investment funds and trading. However, supervisory resources remain inadequate, the CVM has limited budgetary autonomy, and Commissioner vacancies have constrained effectiveness at a time when evolving market structures and growing complexity call for enhanced supervisory and regulatory capabilities.

54. Increased depth of supervision, and updating regulation in response to developments, is critical. Potential new competition among trading venues will require clearer and consistent rules for market operators, including prudential requirements, and an updated SRO framework to prevent supervisory oversight gaps. While the monitoring and surveillance technology used by exchanges and SROs has supported market development, the CVM's own surveillance remains constrained by delayed data, manual processes, and limited autonomous detection of market abuse. Upgrading CVM's in-house technology, resuming regular on-site inspections, strengthening broker-dealer licensing and direct reporting, and reducing reliance on market operators and SROs are key. Strong understanding of the market is the foundation of a risk-based approach, from which supervision can be proactive rather than responsive, and risk-based prioritization can be embedded.

D. Crypto Regulation

55. BCB has taken decisive steps in crypto regulation, targeting crypto-asset service providers (CASPs) and FX market risks, and further legal and regulatory changes will be required to complete the framework. BCB has introduced oversight of CASPs and improved the monitoring of crypto flows, but this does not yet amount to a comprehensive regulatory framework for the sector. Important vulnerabilities remain, particularly in relation to segregation and insolvency protection of client assets, and an absence of a legal basis to regulate crypto-asset issuance, including stablecoins.[26] Reliance on CASPs as gatekeepers for stablecoins has clear limitations and should be supplemented by stablecoin regulation, taking into consideration international standards including the FSB Global Stablecoin Arrangement recommendations. The treatment of clients' assets

[26] Various bills of law aimed at addressing these gaps were under consideration during the FSAP.

in custody chains should be clarified, prudential requirements finalized[27] and guidance provided on crypto market and technology-specific risks.

56. Crypto activities already have intersections across the financial sector and a comprehensive framework for overseeing crypto-asset activities should also be established. Brazil's crypto-asset market is large and fast-growing, and increasingly interconnected with the traditional financial system. As regulation embeds, the potential for expansion and increased interconnectedness is significant. Effective reporting frameworks and advanced data analytics are crucial for oversight. The BCB will also need to ensure close coordination with the CVM and foreign supervisors, and have the necessary technological and supervisory capability in place to supervise crypto markets effectively.

E. Financial Market Infrastructures

57. Brazil's financial market infrastructure (FMI) ecosystem is large and complex with a concentration of multiple systemically important FMI functions within a single group. The BCB operates two important payment systems and the central securities depository, the securities settlement system for federal securities (SELIC). SELIC operates under long-standing contractual arrangements with ANBIMA, a self-regulatory association. Private FMIs comprise two central counterparties (CCPs), six CSDs, seven SSSs, three non-systemically important payment systems, and nine Trade Repositories (TRs). The operation of both systemically important CCPs within a single corporate group raises risks for continuity, resolvability, and recovery planning and creates single points of failure. BCB should ensure sufficient resources are deployed to oversight, and that the lender-of-last-resort function can be exercised to support all systemically important FMIs. General-business-risk requirements should be revised by mandating adequate resources at each FMI, supported by credible, regularly tested recovery and orderly wind-down plans that account for group-level interdependencies.

F. Fast Payment System

58. Pix's growing criticality might require further strengthening of operational resilience amid rising cyber and fraud risks, and consideration of whether additional liquidity arrangements may be needed in stress scenarios. BCB's oversight policy for Pix should be formalized and disclosed. The oversight and operational functions for Pix should be separated and the oversight function established as a distinct, unified core function. The risk management framework and oversight framework for Pix should encompass the entire system (including major participants and key service providers) in line with international standards.

G. Cybersecurity Risk Supervision

[27] Prudential requirements are in place for within prudential conglomerate led by a non-CASP (bank etc.). Prudential requirements for stand-alone CASPs and CASP-led conglomerates need to be finalized.

59. Cybersecurity risk supervision and cyber resilience are among BCB's top priorities, reflecting digitization's key role in increasing the efficiency and inclusiveness of Brazil's financial system. This prioritization is also motivated by the prevalence of sophisticated cyberattacks, often carried out by domestic cybercrime groups focused on financial gain. Notable risks include cyberattacks on IT service providers connected to Pix via the National Financial System Network, insider threats, and large-scale digital scams.

60. Cybersecurity risk supervision of financial institutions and financial infrastructures is based on a regulatory framework that is broadly aligned with relevant internationally accepted principles, technical standards and frameworks. Supervisory practices are materially in line with the applicable regulations and prevailing international good practice. Key strengths include the establishment of clear supervisory priorities, extensive data collection and analysis and a proactive stance to mitigate the impact of cyber incidents, fast reaction time in adapting regulatory requirements to the evolving threat landscape, and an emphasis on cyber crisis exercises. Although cybersecurity risk is prioritized and relatively well staffed compared to other risk specialist functions, staffing levels at the BCB lag compared to the level of risk. It would be useful to assess workforce needs, considering current and projected workloads over a 3-5 year period. Cybersecurity risk oversight of FMIs that are operated by BCB is less comprehensive in comparison with supervision of cybersecurity risk at banks and could be strengthened by more involvement of the cyber risk specialist team. Regulation of cyber incident reporting should be revised to add more specific requirements and more in-depth requirements on cybersecurity testing, such as red teaming or threat-led penetration testing, should be added to the regulatory framework. The prevalence of attacks on APIs security calls for more explicit and detailed coverage of APIs in regulation.

H. Financial Consumer Protection

61. Establishing responsible lending rules for financial service providers would provide additional protection to households amid a changing credit environment and a rise in household indebtedness. While references to assessing creditworthiness and suitability can be found in the current legal and regulatory framework, further details are needed to expand on these high-level principles and establish robust requirements on responsible lending, accompanied by clear supervisory expectations. In addition to responsible lending rules, hard limits could be considered in certain circumstances, such as limits on the number of times payroll-deducted loans can be rolled over. Regulators should also monitor marketing practices and enhance disclosure and transparency rules.

I. Anti-Money Laundering and Combatting the Financing of Terrorism

62. The AML/CFT framework for banks is comprehensive and risk-based, though supervisory effectiveness is constrained by capacity limitations and enforcement weaknesses. Strengthening resources and reforming sanctioning governance are critical to enhancing supervisory credibility. Continuing to enhance BCB's sanctioning capabilities, including by increasing the level of fines it may directly impose, would allow BCB to more agilely respond to compliance breaches.

63. New regulations have introduced AML/CFT obligations for CASPs but may not fully address emerging ML/TF risks. Suspension of CASPs from the Financial Intelligence Unit's portal for reporting suspicious transactions may impact crime detection and risk mitigation. Further, until travel rule requirements are implemented by CASPs, the regulatory/licensing regime does not fulfil the requirements of international standards. Delayed implementation of the travel rule and suspension of CASPS from the financial intelligence unit portal for reporting suspicious transactions impacts crime detection, risk mitigation and data quality. Ensuring proper application of AML/CFT preventive measures by CASPs and building supervisory capacity to oversee new regulatory requirements will be key for effective risk mitigation.

CRISIS MANAGEMENT AND FINANCIAL SAFETY NETS

A. Bank Resolution Framework

64. A number of improvements were made to the crisis management and bank resolution framework following the 2018 FSAP but the framework remains a work in progress. A comprehensive regulatory framework for recovery and resolution planning (RRP) was approved and a first round of plans submitted. The autonomy of the BCB has been strengthened in law and the BCB has entered into bilateral agreements with all domestic authorities on exchange of information and coordination of actions; including with the deposit insurer (FGC), which grants to the FGC access to individual information on banks although not on individual depositors.

65. Convergence to a fully functioning framework in line with international standards is held back by the absence of a legislation establishing a modernized resolution regime. A Draft Resolution Law was submitted to Congress in December 2019 and has made no progress since then. The adoption of a modernized resolution regime, in the Draft Resolution Law or another vehicle, should be a priority for the authorities.

66. Greater operational autonomy of the BCB and stronger inter-institutional arrangements would improve the new resolution framework. A lack of operational (financial) autonomy negatively impacts BCB staffing and resources and it risks undermining the effectiveness of the resolution function. The legal protection regime for BCB staff should be extended to provide protection for acts or omissions taken in support of foreign resolution measures. Establishing a formal high-level crisis coordination committee, including the FGC once moved to the public sector, would further strengthen the framework. Relevant authorities should also establish a procedure for routine review following bank failures.

67. While the early intervention powers of the BCB are robust and flexible, the process for dealing with weak banks should be tightened The BCB should develop internal procedures to share information with the FGC on early interventions in banks and reflect these in the MoU between the BCB and the FGC. Extending recovery planning (proportionate) requirements to cover all banks would further strengthen oversight.

68. The BCB has made good progress preparing for the resolution of systemic banks, using the current regime to its maximum. A modernized resolution regime should extend the resolution framework to state-owned banks and should add a Bank Resolution Fund, including a temporary public backstop, with statutory conditions protecting the use of public funds. A requirement for building bank-specific loss-absorbing capacity (LAC), should also be adopted.

B. Deposit Insurance

69. Significant progress has been made to improve the governance of the deposit insurance regime, but impediments limiting depositor payouts and the functioning of the FGC remain to be tackled. The removal of active bankers from FGC decision-making bodies was a major improvement. However, the FGC is still not entitled to confidential depositor data, nor is it part of a high-level crisis committee. As a result, the FGC cannot prepare for payouts because confidentiality constraints mean it does not receive deposit information in a timely manner. The FGC and BCB should implement a plan to reduce the payout period to seven days to comply with the international standard, which will require addressing legal impediments to the exchange of confidential information. Should the FGC become a public entity, it should be included in high-level crisis management committees.

70. The open bank assistance function of the FGC may expose the FGC to significant risk and additional losses and should be removed. This function should be discontinued to protect the fund's resources—establishing mechanisms to better safeguard FGC lending against misuse or use for insolvent banks would be a good first step. The FGC's resources would be further strengthened with the addition of pre-arranged public back-up funding and adopting a depositor preference in the law, with the first tier of preference applicable to the claims of insured depositors and of the FGC.

C. Central Bank Liquidity Assistance

71. The BCB has a broad toolkit to address financial stability risks arising from liquidity conditions, particularly in fixed-income and FX markets. In 2021, it formalized its Liquidity Facilities framework, including the Term Liquidity Facility, which serves as the Emergency Liquidity Assistance (ELA) instrument. The BCB can intervene in fixed-income markets, including trading government securities, to support market functioning and financial stability. In FX markets, the BCB actively deploys FX swaps, U.S. dollar credit lines, and spot FX auctions to address episodes of market dysfunction. The BCB has expanded eligible collateral to include CCBs, bank loans to non-financial borrowers issued as securities.

72. Granting the BCB authority to intervene in securities markets for financial stability purposes and establish liquidity facilities for non-bank financial institutions (NBFIs) when liquidity-constrained NBFIs pose systemic risk would further improve the framework.[28] The

[28] The principle is that liquidity provision through financial institutions is generally preferred to asset purchases; however, asset purchases may be necessary under certain conditions. See "Addressing Market Dysfunction and

(continued)

BCB currently requires ex-ante legal authorization to intervene in markets beyond government securities, a process too cumbersome to address the potential need for action in a crisis. It does not have authority to extend liquidity to NBFIs, which are not currently systemic but are growing. Clear communication of the BCB's forward-looking approach to solvency assessments in ELA would strengthen accountability and regularly reassessing the appropriateness of spreads on policy rates for liquidity facilities, strengthening collateral prepositioning, especially of bank credit notes (CCBs), and reinforcing periodic revalidation of haircut modeling should also be considered.

DEVELOPMENTAL FINANCE

73. Infrastructure finance has structurally shifted toward greater private financing; authorities need to enhance the growth and sustainability of the new model. Infrastructure investment remains below needs but is growing, with a structural shift from BNDES toward private financing. The program's sustainability can be improved by conducting cost-benefit analyses on the option to phase out the incentives gradually, establishing stricter standards for the use of proceeds, and reviewing impediments to unlocking pension and investment fund capital.

74. The housing finance system combines scale and stability under extensive public intervention, but faces rising sustainability pressures. Priority reforms include strengthening FGTS' external oversight and governance while enabling greater commercial bank participation; facilitating a gradual and sustainable transition away from declining savings-based funding and rebalancing subsidies while scaling up initiatives targeted at lower-income households.

AUTHORITIES' VIEWS

75. The authorities welcomed the findings of the FSAP and concurred with the FSAP team's views that the financial sector remains resilient, with banks well capitalized and liquid. The FSAP's assessment of the risks to the system is broadly in line with those evaluated in the BCB's Financial Stability Report. The authorities welcomed the overall positive assessment of financial stability risks and note that the banking and insurance systems remain resilient to even the severe shock scenarios employed for the FSAP stress testing analysis. The authorities noted that various tools are in place to mitigate market stress should it appear. The climate analysis provided useful insight to the authorities' monitoring of the potential impact of growing climate risks on market participants, which the authorities already consider. The authorities continuously evaluate potential measures to sustain financial system resilience, including initiatives to further improve the treatment of operational risks, fraud prevention, and financial consumer protection. The authorities agreed that continuing to strengthen their capacity to monitor the non-bank financial system is a priority as the financial system evolves and that digital banks should be incorporated in regular stress testing exercises going forward.

Liquidity Stresses in Nonbank Financial Intermediaries", Global Financial Stability Notes 2025, 004 (2025) by Antonio I Garcia Pascual, Thomas Piontek, Romain M Veyrune, and Jason J Wu.

76. The authorities welcomed the acknowledgement of the significant progress in improving the financial stability framework since the 2018 FSAP. As noted in the report, many recommendations from 2018 have been implemented in Brazil, including improving legal protections and independence of the central bank, embedding a macroprudential framework and employing a range of macroprudential tools, implementing IFRS 9, upgrading the financial system regulatory framework, strengthening regulation of investment funds, enhancing the governance of the deposit insurance fund, and developing recovery and resolution planning for banks.

77. The authorities remain committed to further enhancing the bank resolution framework when necessary legislation is enacted. The authorities view the new legislation as essential for a significant improvement of the framework.

78. The authorities disagreed with the recommendation regarding the open bank assistance function of the deposit insurance scheme (FGC). They stressed its complementary role with the BCB's Emergency Liquidity Assistance. Both functions are part of the Brazilian toolkit to manage distress and they are essential to safeguard financial stability.

79. The authorities highlighted the strength of financial regulation and supervision frameworks in Brazil, which are well aligned to Basel III and other global financial standards. As the FSAP concludes, BCB's regulatory framework for banks follows international standards and banking supervision employs well-developed reporting and analytical frameworks. The authorities agreed that the maintenance of financial stability hinges on an institutional framework for BCB which ensures high-quality staffing and budgetary resources. However, the authorities also consider that resource constraints have not prevented BCB from acting decisively, timely, and credibly. In the same vein, the authorities have been assessing alternatives to strengthen the capacity of BCB, CVM and SUSEP to effectively carry out their increasingly complex supervisory, analytical, and market oversight activities.

80. Digitalization of the financial system has profoundly improved financial inclusion and efficiency of the financial sector, as noted in the FSAP. The authorities concurred with the FSAP's recognition of the pivotal role of the Pix system and the advent of digital banking in delivering greater competition in the financial system, while maintaining its safety and soundness. Cybersecurity is a clear priority so that these gains are preserved. The authorities underscored that they are at the forefront of laying out a regulatory framework for the emerging crypto asset industry and will continue to upgrade the framework as conditions evolve.

81. The authorities reaffirmed their strong commitment to safeguarding financial stability and to continuously strengthening Brazil's regulatory and supervisory frameworks.

Table 2. Brazil: Selected Economic Indicators (2023-2031)

I. Social and Demographic Indicators

Area (thousands of sq. km.)	8,510	Health	
Agricultural land (percent of land area)	30.2	Physicians per 1000 people (2024)	2.8
		Hospital beds per 1000 people (2024) 1/	2.0
Population (2024, est.)		Access to safe water (2022)	88.0
Total (millions)	213.4		
Annual rate of growth (percent)	0.4	Education (2024)	
Density (per sq. km.)	25.1	Adult illiteracy rate	5.3
Unemployment rate	6.0	Net enrollment rates, percent in:	
		Primary education	99.4
Population characteristics (2022)		Secondary education	91.9
Life expectancy at birth (years)	76.6		
Infant mortality (per thousand live births)	12.3	Poverty rate (in percent, 2024) 2/	23.1
Income distribution		GDP, local currency (2024)	R$12,739 billion
Palma ratio (2024) 3/	3.3	GDP, dollars (2024)	US$2,280 billion
Gini coefficient (post taxes and transfers, 2024)	50.4	GDP per capita (2024)	US$10,686

Main export products: airplanes, metallurgical products, soybeans, automobiles, electronic products, iron ore, coffee, and oil.

II. Economic Indicators

				Proj.					
	2023	2024	2025	2026	2027	2028	2029	2030	2031
National accounts and prices				(Annual percentage change)					
GDP at constant prices	3.2	3.4	2.3	1.9	2.0	2.4	2.5	2.5	2.5
Consumption	3.4	4.5	2.2	1.5	1.2	1.8	2.2	2.4	2.2
Investment (GFCF)	-3.0	6.9	1.5	1.5	1.8	1.9	2.1	2.1	2.1
Consumer prices (IPCA, end of period)	4.6	4.8	4.3	4.3	3.0	3.0	3.0	3.0	3.0
GDP deflator	5.2	4.1	5.7	5.3	3.7	3.6	3.6	3.6	3.6
Gross domestic investment				(Percent of GDP)					
Private sector	12.0	12.9	12.7	12.7	12.6	12.6	12.5	12.4	12.4
Public sector	3.8	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
Gross national saving									
Private sector	21.8	19.5	21.2	21.1	20.6	20.1	20.1	20.0	20.1
Public sector	-7.3	-5.5	-7.4	-7.1	-6.2	-5.5	-5.4	-5.4	-5.4
Public sector finances									
Central government primary balance (national representation, incl. BCB) 4/	-2.4	-0.4	-0.5	-0.5	-0.4	0.1	0.4	0.5	0.6
General government NLB primary balance	-2.2	-0.2	-0.4	-0.5	-0.4	0.1	0.4	0.5	0.6
General government NLB structural primary balance (in percent of potential GDP)	-1.8	-1.8	-1.3	-1.2	-0.5	0.1	0.4	0.5	0.6
General government NLB	-7.7	-6.2	-8.1	-7.7	-6.9	-6.2	-6.0	-6.1	-6.1
Net public sector debt	60.4	61.3	65.2	70.8	74.5	77.1	79.3	80.4	81.1
General government gross debt, Authorities' definition	73.8	76.3	78.6	85.3	88.8	91.1	92.9	94.3	95.3
General government gross debt	84.0	87.0	93.3	96.5	100.0	102.3	104.1	105.5	106.5
Of which: Foreign currency linked	3.5	4.4	3.8	3.8	3.9	3.9	3.9	4.0	4.0
Money and credit				(Annual percentage change)					
Base money 5/	20.4	13.2	5.5	7.3	5.7	6.0	6.2	6.2	6.2
Broad money 6/	15.5	12.4	11.3	9.0	6.2	6.0	6.3	6.2	6.2
Bank loans to the private sector	6.9	11.4	9.6	8.4	7.1	6.0	6.2	6.2	6.2
Balance of payments				(Billions of U.S. dollars, unless otherwise specified)					
Trade balance	92.3	65.8	59.7	69.3	81.4	88.5	94.8	100.4	106.7
Exports	343.8	339.9	350.5	380.6	392.7	405.9	421.4	437.0	453.4
Imports	251.5	274.0	290.8	311.3	311.3	317.5	326.6	336.6	346.8
Current account	-27.1	-66.2	-69.0	-71.3	-66.6	-58.8	-56.7	-62.5	-62.4
Capital account and financial account	27.0	71.9	67.4	71.3	66.6	58.8	56.7	62.5	62.4
Foreign direct investment (net inflows)	37.6	47.8	47.5	50.7	52.7	54.7	56.7	58.8	60.9
Terms of trade (percentage change)	2.4	3.1	-1.9	-0.1	-0.1	-1.1	-0.9	-0.7	-0.5
Total external debt (in percent of GDP)	33.4	32.8	35.0	31.2	30.3	29.4	28.1	26.8	25.6
Memorandum items:				(Percent, unless otherwise specified)					
Output Gap	0.6	1.3	1.1	0.5	0.1	0.0	0.0	0.0	0.0
SELIC policy rate, end of period	11.8	12.3	15.0	12.8	8.8	8.0	8.0	8.0	8.0
Current account (in percent of GDP)	-1.2	-3.0	-3.0	-2.7	-2.4	-2.0	-1.9	-2.0	-1.8
Unemployment rate	8.0	6.9	6.0	6.8	7.4	7.4	7.4	7.4	7.4
Gross official reserves (in US$ billions)	355	330	358	358	358	358	358	358	358
REER (annual average in percent; appreciation +)	12.2	4.9	-4.2	...	...	...	...	...	

Sources: Central Bank of Brazil, Ministry of Finance, IBGE, IPEA, and Fund staff estimates.
1/ Includes inpatient beds and complementary beds.
2/ Computed by IBGE using World Bank's 2024 threshold for upper-middle income countries (U$6.85/day).
3/ Share of income of the top 10% divided by share of income of the bottom 40%.
4/ Includes federal government, Central Bank, and the social security system (INSS). The 2023 primary balance excludes pandemic-related funds from PIS/PASEP, as per BCB
5/ Currency issued, required deposits held at the Central Bank plus other Central Bank liabilities to other depository corporations.
6/ Currency outside depository corporations, transferable deposits, other deposits and securities other than shares.

Table 3. Brazil: Financial Soundness Indicators (2019-2025)

(In percent)

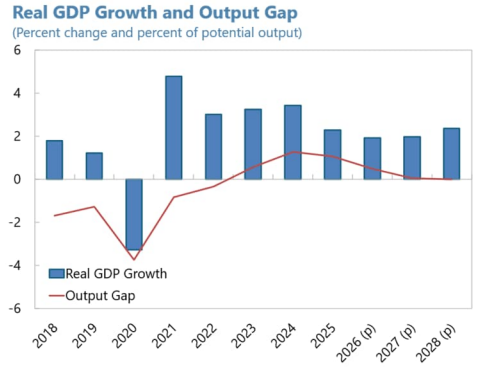
	2019	2020	2021	2022	2023	2024	2025
Capital Adequacy							
Regulatory capital to risk-weighted assets	19.4	19.1	18.4	17.5	17.9	17.1	17.2
Regulatory Tier 1 capital to risk-weighted assets	16.0	16.4	16.0	15.3	15.8	15.4	15.5
Tier 1 capital to assets	9.6	8.7	8.8	8.8	8.9	8.2	8.3
Gross asset position in financial derivatives to capital	11.8	18.7	15.5	17.8	12.1	20.4	6.0
Gross liability position in financial derivatives to capital	14.1	20.5	15.8	16.8	12.0	18.9	5.4
Non-performing loans net of provisions to capital	-12.4	-16.6	-13.3	-13.7	-11.7	-10.6	-13.4
Asset Quality							
Non-performing loans to total gross loans	2.7	1.9	2.1	2.6	2.8	2.7	3.9
Earnings and Profitability							
Return on assets	2.0	1.9	2.4	2.1	1.6	1.8	1.6
Return on equity	15.8	11.7	14.9	15.3	13.7	15.3	14.9
Non-interest expenses to gross income	55.5	51.6	52.0	50.1	53.0	51.6	49.4
Interest margin to gross income	62.1	63.4	65.4	65.4	67.3	75.9	69.4
Liquidity							
Liquidity coverage ratio	221.5	229.0	173.9	169.8	184.6	188.9	199.4
Liquid assets to short-term liabilities	260.8	308.5	199.7	194.5	240.5	238.4	264.9
Liquid assets to total assets	13.6	16.3	12.7	11.7	13.8	13.4	15.0
Net open position in foreign exchange to capital	0.2	0.6	2.3	3.3	2.0	3.7	4.2
Real Estate Markets							
Residential Real Estate Prices	5.0	8.9	6.2	1.8	4.8	6.1	4.4
Commercial Real Estate Prices	-2.6	-1.2	0.0	-0.4	-0.6	0.4	2.6

Sources: Central Bank of Brazil; and Fund staff calculations.

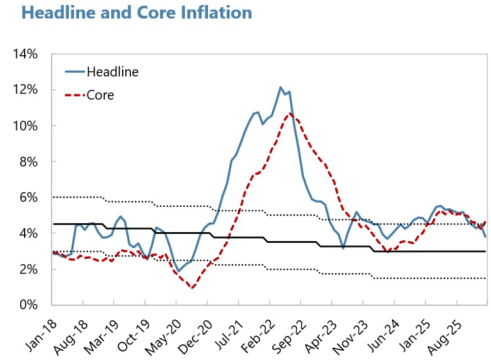
Annex I. Figures

Annex I. Figure 1. Brazil: Macroeconomic Developments

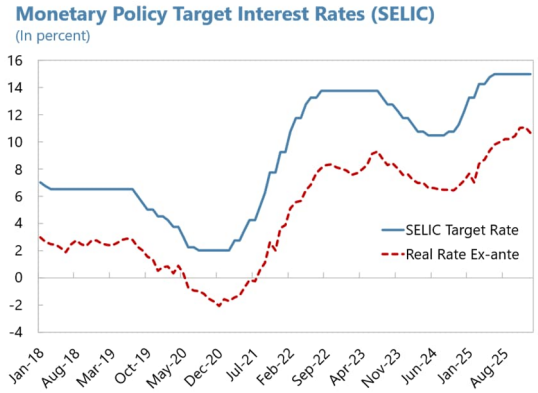
Growth has moderated with tight monetary policy, a scaling back of fiscal support, and heightened global uncertainty.



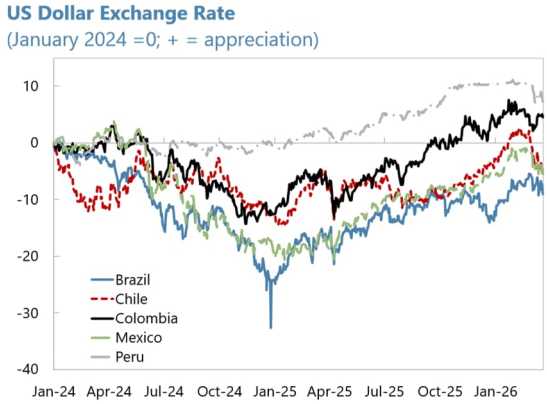
Inflation has declined to levels within the target inflation interval in 2026.



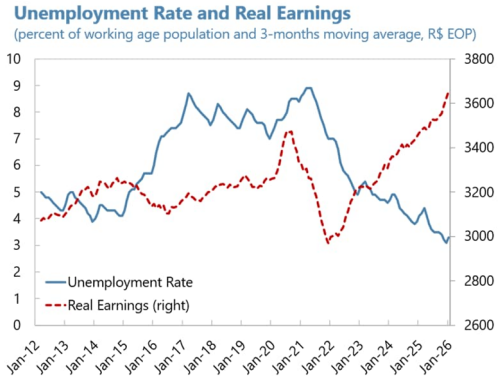
Monetary policy embarked on a new tightening cycle in September 2024.



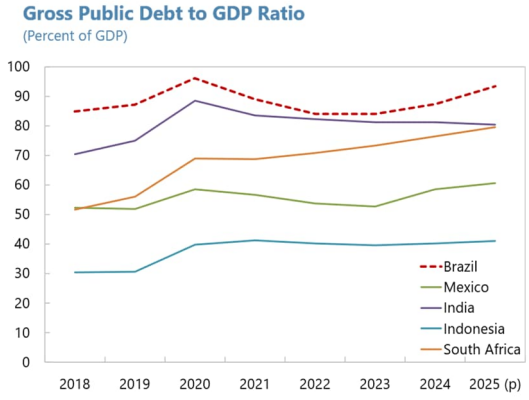
In 2024, the BRL depreciated over twenty percent against the USD, with some reversal in 2025.



Unemployment is historically low, and real earnings are higher than pre-pandemic levels.



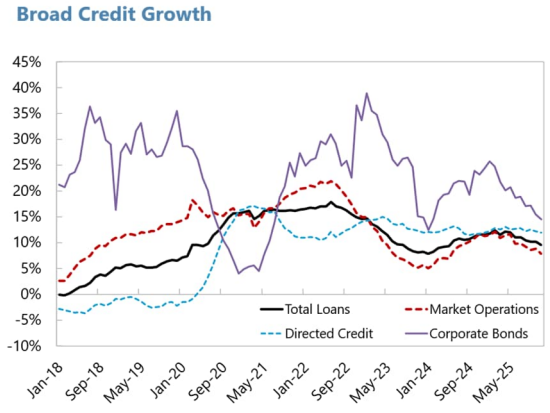
The public debt level in Brazil is higher than for peers and fiscal consolidation remains in focus.



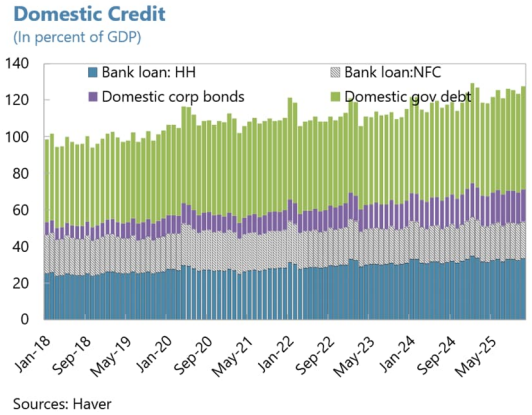
Sources: BCB, Haver, and IMF staff calculations.

Annex I. Figure 2. Brazil: Credit Developments

Broad credit growth has accelerated, driven by corporate bonds and directed credit.

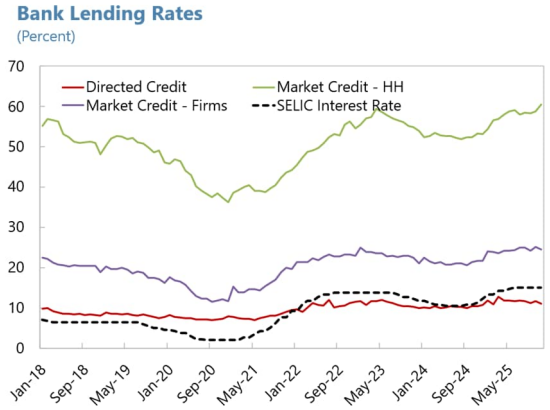


Consumer credit and corporate bonds have grown in proportion to GDP.

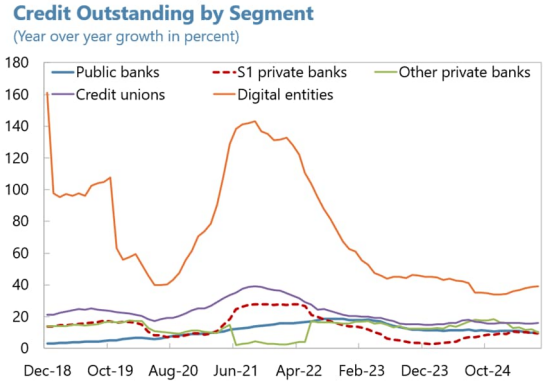


Sources: Haver

Market Lending rates are high, especially for consumer loans.

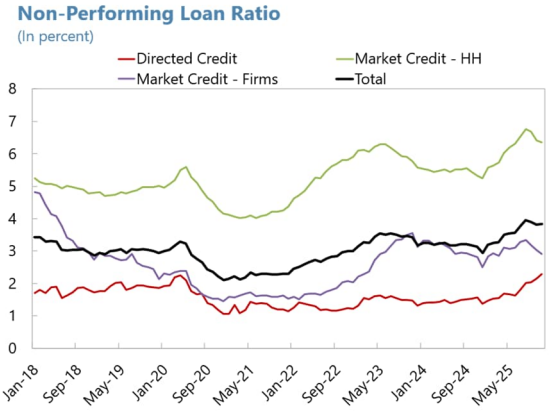


Bank loan growth has been driven by digital banks.

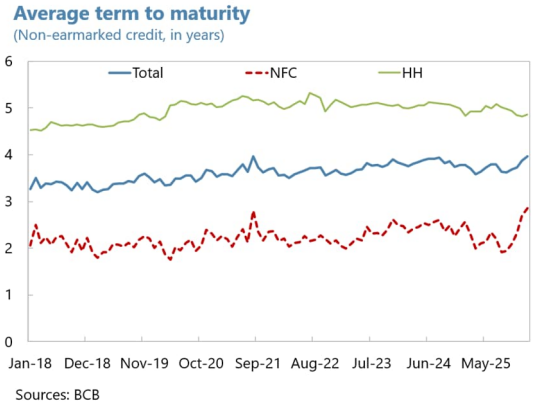


Sources: BCB Financial Stability Report

Non-performing loan ratios have been edging up since 2025.



Non-earmarked corporate loans have shorter maturities than household loans (excl. mortgages).

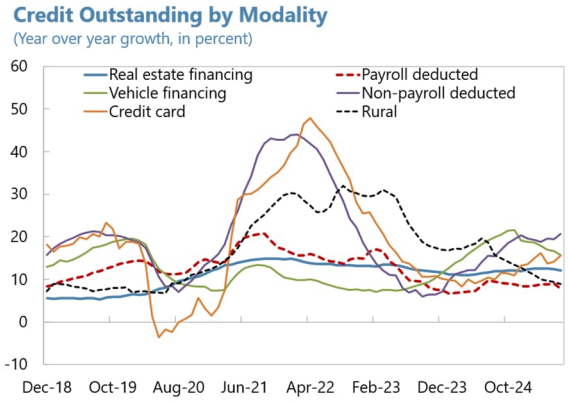


Sources: BCB

Sources: BCB, Haver, and IMF staff calculations.

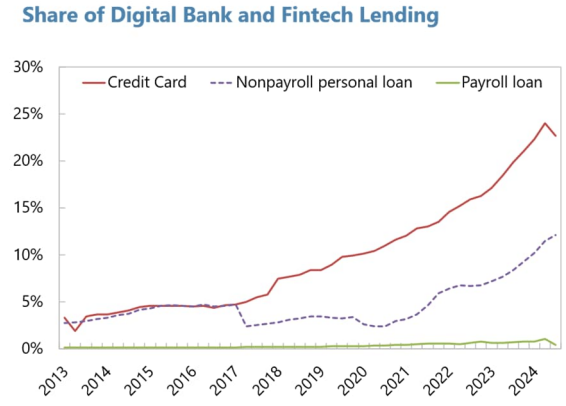
Annex I. Figure 3. Brazil: Household Financial Health

Growth of household credit has been driven by credit card and non-payroll backed personal loans...



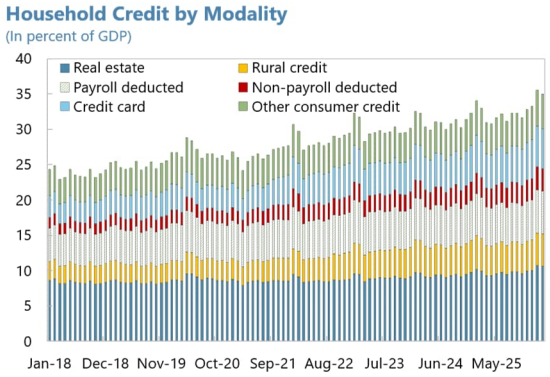
Sources: BCB

... with fintech and digital banks driving the growth.



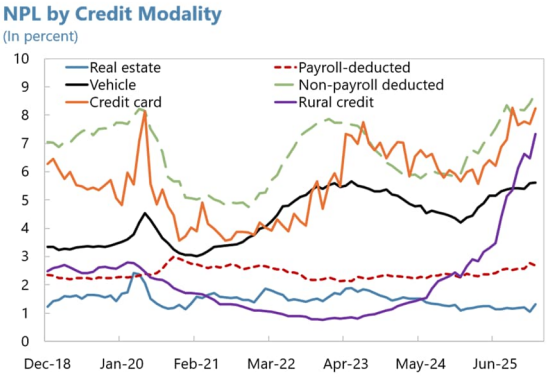
Sources: BCB and IMF Staff Calculation

In Brazil, most household loans are consumer loans



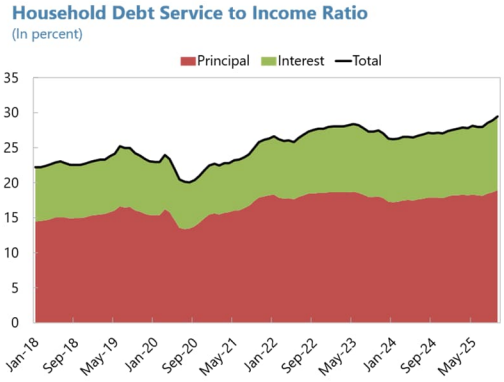
Sources: Haver

Unsecured consumer loans, such as credit card and non-payroll backed personal loans, have higher NPL.

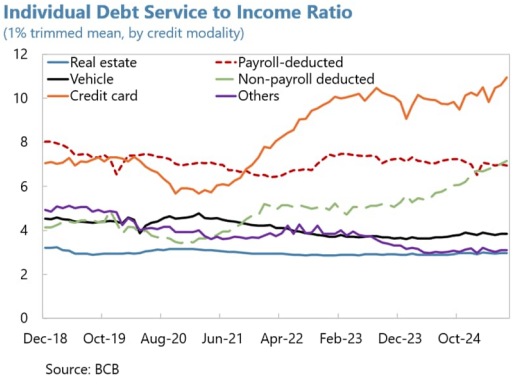


Sources: Haver

Household DSTI ratio is elevated and rising...



... driven by unsecured personal loans including credit card and non-payroll backed personal loans.

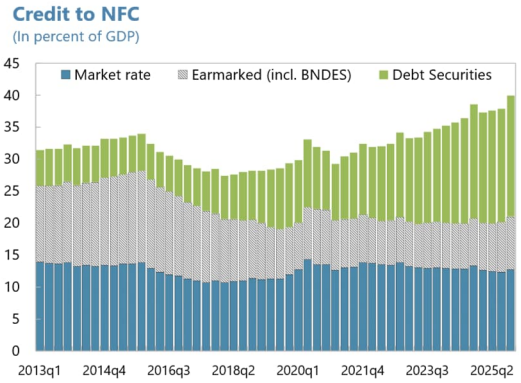


Source: BCB

Sources: BCB, Haver, and IMF staff calculations.

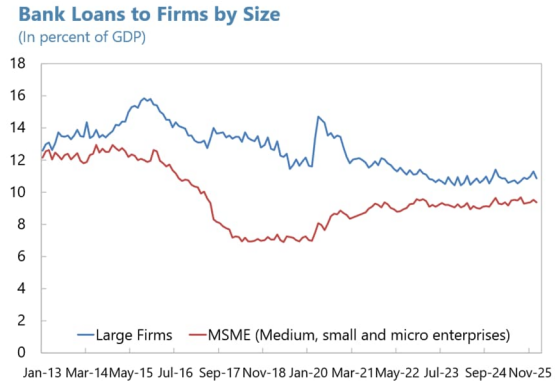
Annex I. Figure 4. Brazil: Financial Conditions of Nonfinancial Corporates

Earmarked credit to firms declined after the BNDES reform while bond financing has increased significantly.



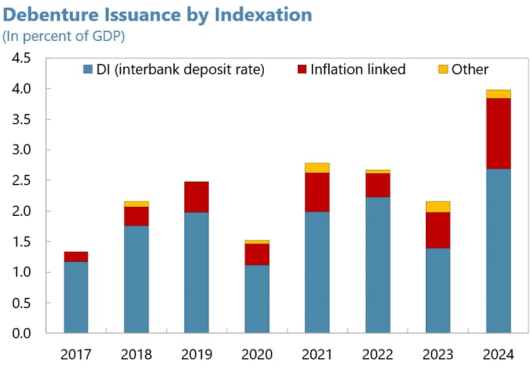
Sources: Haver

Loans to MSMEs declined in 2016 and have only partially recovered post-pandemic.



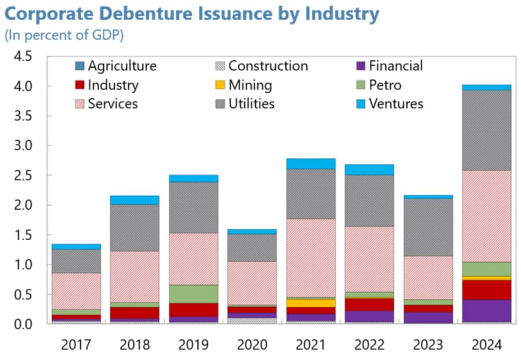
Sources: Haver

Most corporate debentures have floating rates linked to policy rate or inflation…



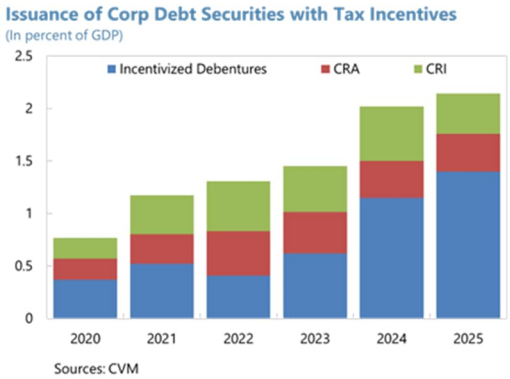
Sources: CVM and Staff Calculation

… issued by large companies in utilities and services sectors.



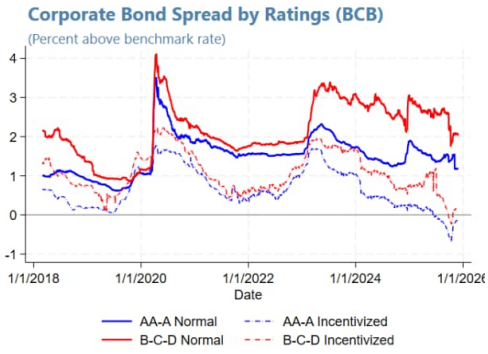
Sources: CVM and Staff Calculation

Debt securities with tax incentives are attractive to investors…



Sources: CVM

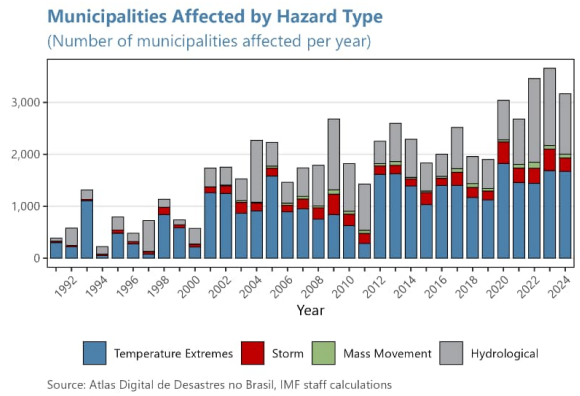
…leading to narrower spread compared to government bonds.



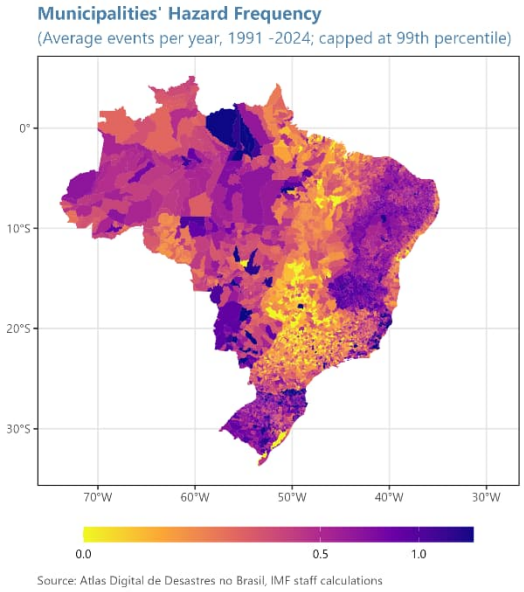
Sources: BCB, ANBIMA, Haver, and IMF staff calculations.

Annex I. Figure 5. Brazil: Historical Climate-Related Hazards

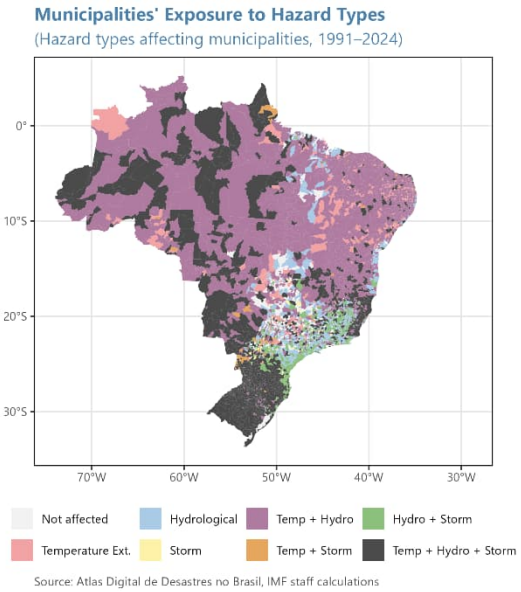
Physical hazards are affecting a growing share of municipalities.



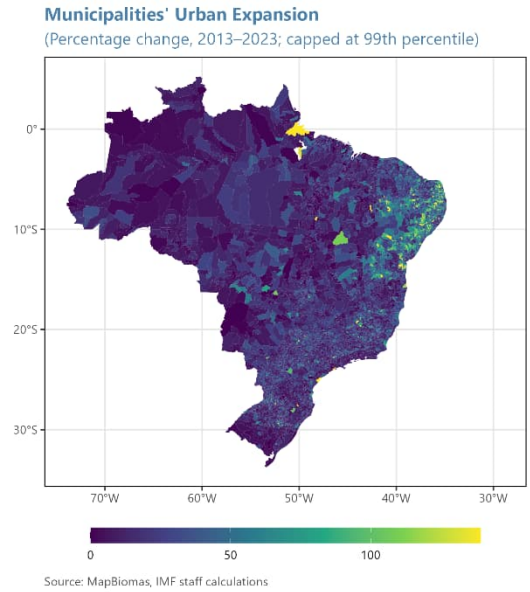
Event frequency is higher in southern and eastern municipalities.



Exposure to multiple hazard types is geographically widespread.



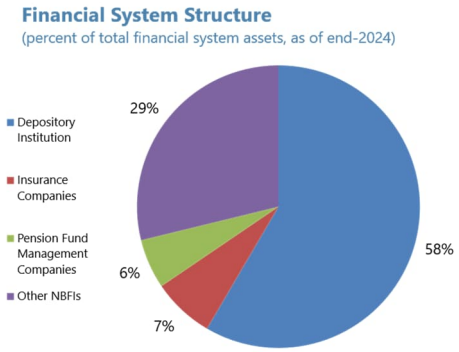
Urban expansion increases exposure, with stronger growth in some regions.



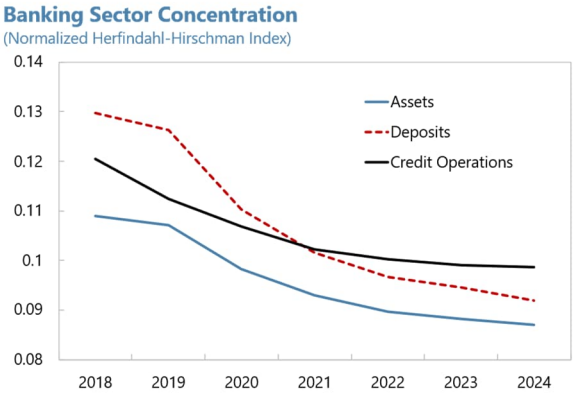
Sources: Atlas Digital de Desastres no Brasil, MapBiomas, and IMF staff calculations.

Annex I. Figure 6. Brazil: Financial System Structure

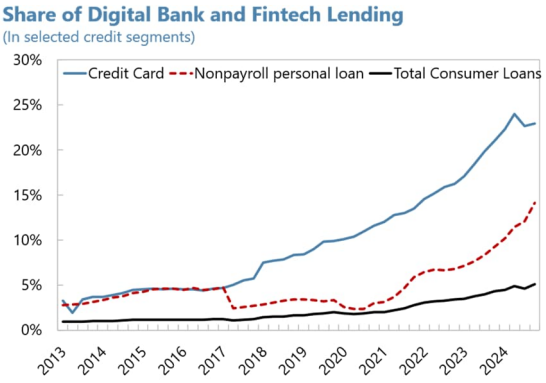
The financial sector is dominated by banks and sizeable investment funds.



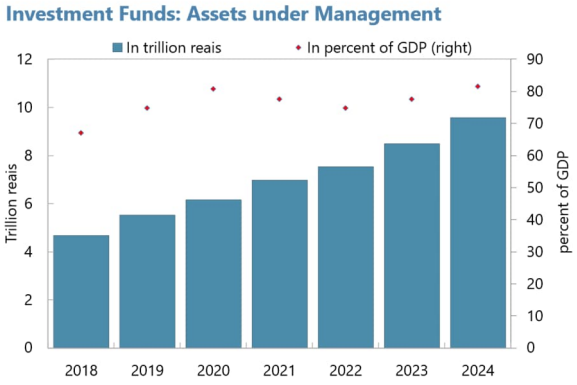
Banking sector concentration has declined...



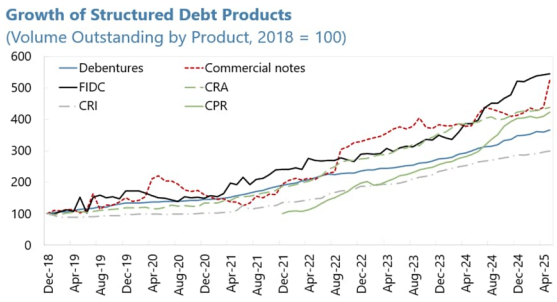
... amid rising competition from digital banks and fintech companies.



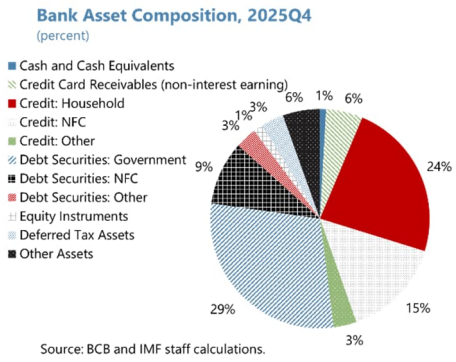
Investment funds manage assets equivalent to approximately 80 percent of GDP.



The retail market for structured debt products has seen rapid expansion.



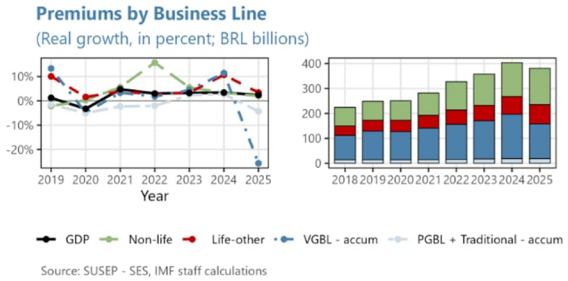
Government debt securities account for 29 percent of bank assets, while household and NFC credit account for 24 and 15 percent respectively.



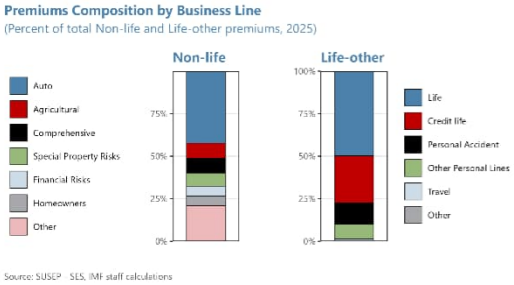
Sources: BCB, CVM, Haver, TripleA Global Crypto Ownership Data, and IMF staff calculations.

Annex I. Figure 7. Brazil: Insurance Sector Premiums and Balance Sheet

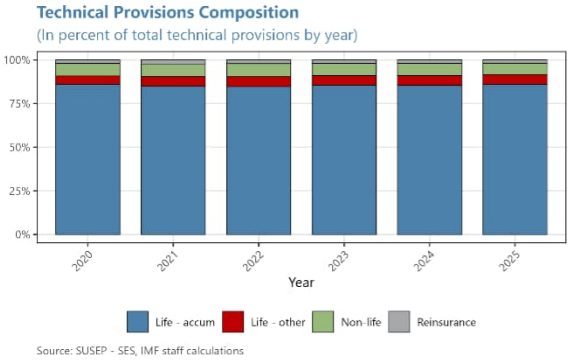
Insurance premiums grew faster than GDP in most business lines, except for a sharp decline in VGBL.



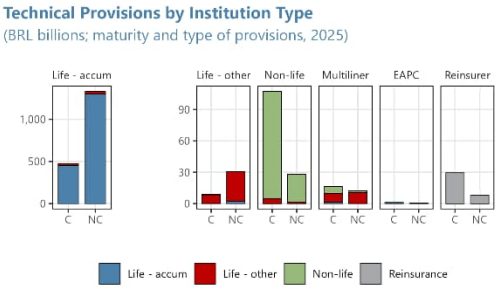
Premiums for non-life and life are concentrated in a few core business lines.



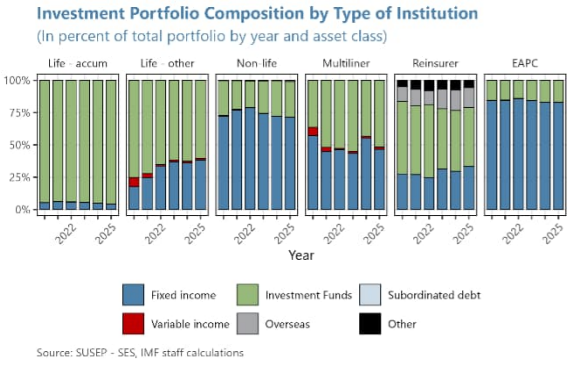
Technical provisions composition has remained consistent for life accumulation products…



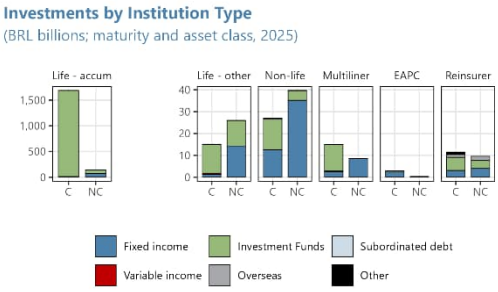
…while the level and maturity of technical provisions vary markedly across institution types.



Investment portfolios are predominantly allocated to fixed income and investment funds across institutions.



Investment holdings are dominated by non-current assets across institution types.

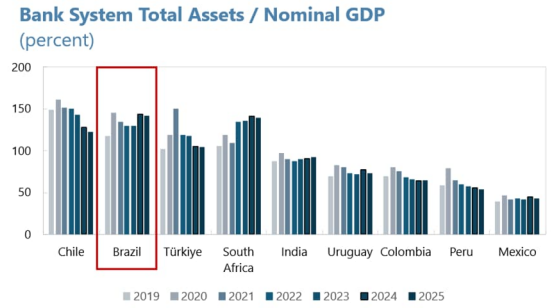


Sources: SUSEP, and IMF staff calculations.

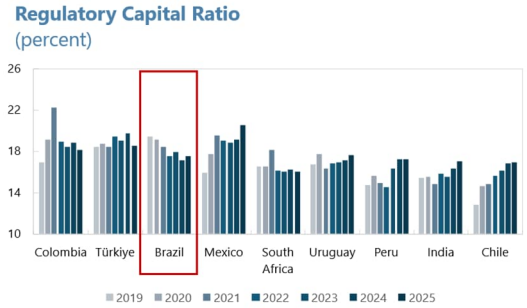
Notes: (1) Insurers and reinsurers were classified according to their main type of technical provisions; (2) current and non-current assets and liabilities correspond to an accounting classification based on whether realization or settlement is expected within twelve months (or the operating cycle) or beyond; (3) life-accumulation products include both traditional and unit-linked life insurance products that provide benefits conditional on survival; (4) unit-linked life insurance products are required in Brazil to operate through segregated investment funds.

Annex I. Figure 8. Brazil: Selected Banking System Indicators

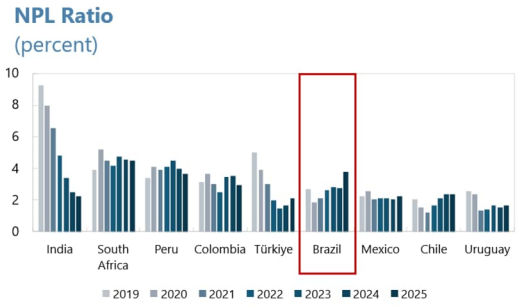
The Brazilian banking system is sizable.



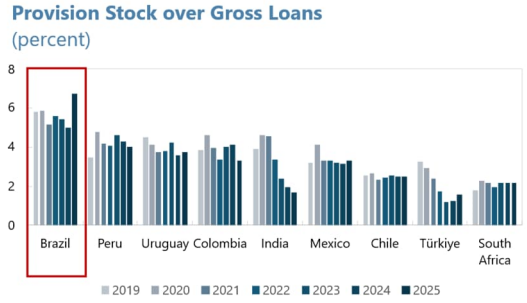
Capital ratios are relatively high among peers.



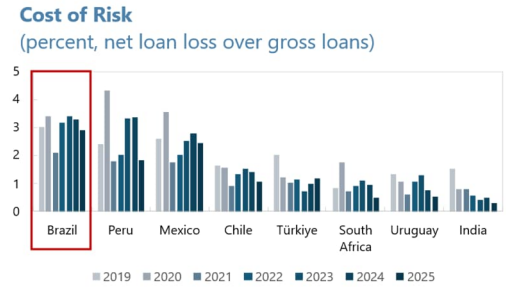
NPL ratios rest at moderate level but have been rising recently.



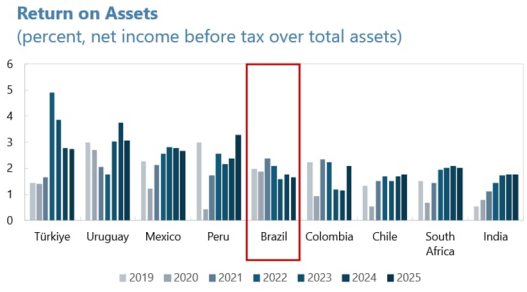
Provision stocks are high, reflecting a high probability of default and low recovery rates for defaulted loans.



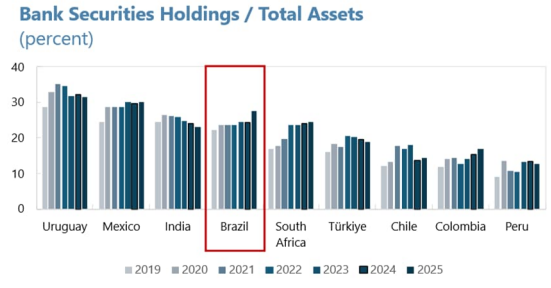
The cost of risk is accordingly high among peers.



Banking system profitability rests at medium levels among peers.



Debt securities constitute a substantial share of bank-issued liabilities.

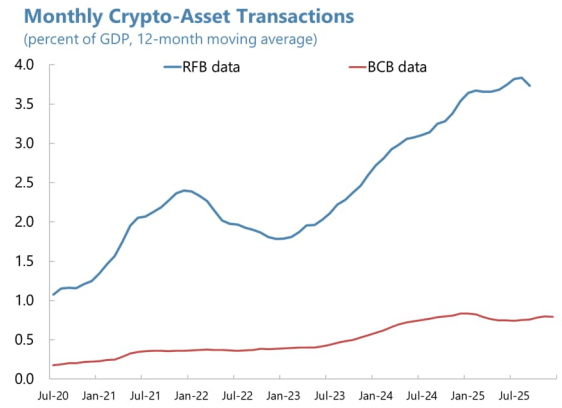


Liquid assets coverage of short-term liabilities appears solid.

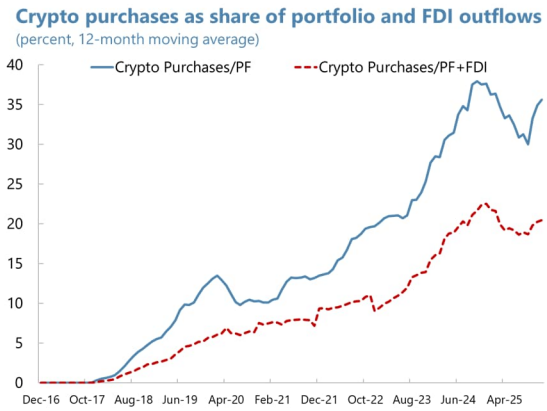
Sources: Financial Soundness Indicators, and IMF staff calculations.

Annex I. Figure 9. Brazil: Crypto-Asset Market Dynamics and Drivers

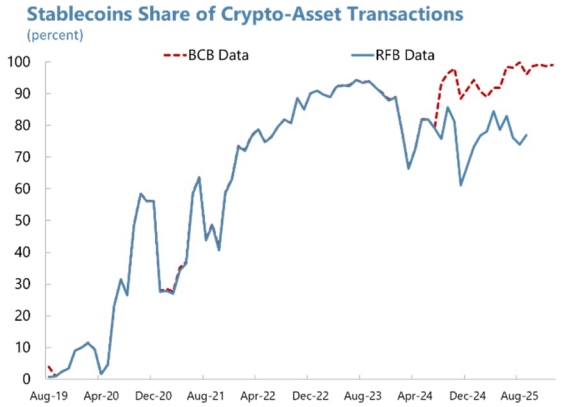
Crypto assets have grown in recent years...



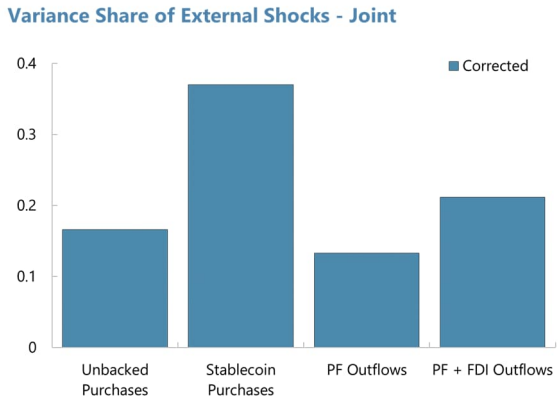
...while crypto-asset flows have expanded at a faster pace than other traditional forms of capital flows.



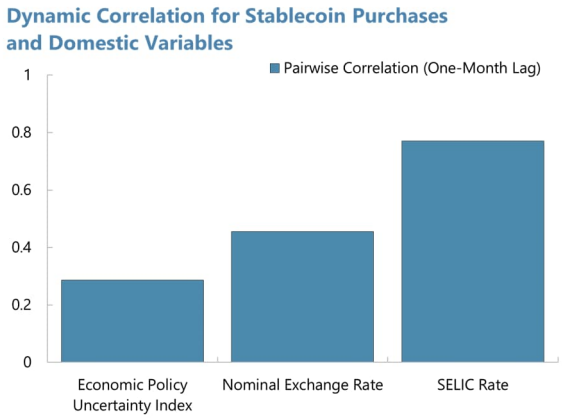
Stablecoin usage has increased sharply since 2020 especially in cross-border transactions.



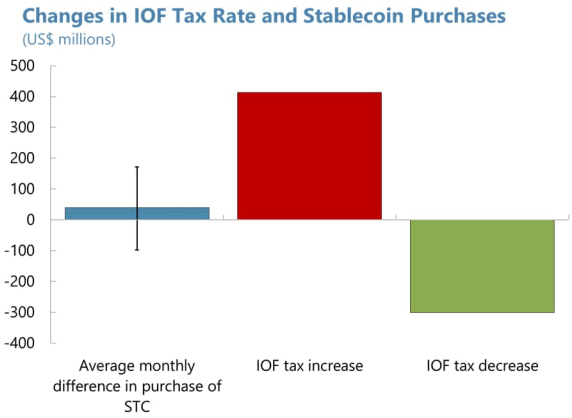
Stablecoin purchases exhibit greater sensitivity to external shocks than traditional capital flows.



Domestic drivers like BRL depreciation and interest rates correlate positively with stablecoin purchases...



... and financial transaction tax (IOF) changes robustly impact stablecoin flows.



Sources: Banco Central do Brasil (BCB), Receita Federal do Brasil (RFB) and IMF staff calculations.

Annex II. Implementation Status of Key Recommendations in the 2018 Financial System Stability Assessment (FSSA)

Recommendations	Time	Authorities' Actions
Microprudential and Macroprudential Institutional Arrangements		
Establish a multi-agency high-level committee, with an explicit mandate for macroprudential policy and the power to issue policy recommendations on a comply-or-explain basis.	ST	Partly implemented. Coordination takes place through COREMEC --which serves as a forum for discussion for financial stability across the BCB, CVM, SUSEP, and PREVIC--and the CMN, which takes decisions on various aspects of regulation. Memoranda of Understanding exist between all institutions and there are no impediments for information sharing. Cross-agency coordination has also improved as COREMEC was re-established and upgraded in 2020 with an explicit financial stability objective, strengthened governance, a rotating presidency, and the BCB as executive secretariat. It remains, however, only as advisory, without comply-or-explain mechanism.
Strengthen the crisis management institutional arrangements for inter-agency cooperation and exchange of information, including for contingency planning.	MT	Partly implemented, ongoing. Coordination in quiet times takes place through COREMEC, which serves as a forum for discussion, and the CMN, which takes decisions on various aspects of regulation. For crisis management, bilateral arrangements have been put in place by the BCB with all the financial safety net participants since the previous FSAP but are only bilateral. The BCB considers that the current coordination model, through bilateral agreements, is more suitable and agile for crisis management in Brazil. It allows the BCB the flexibility to involve only the necessary authorities, according to the nature of the issues at hand. The BCB's contingency planning arrangements have been implemented several times, to cope with different forms of crisis. The "Financial Stability Coordination Law" draft bill proposes the creation of a "Financial Stability National Committee" that would have authority over macroprudential policy and crisis management (including contingency plans/crisis management). The Draft Bill on Coordination has made no progress because the BCB considers the current model, with bilateral engagement, more suitable and agile. A high-level crisis committee is not yet established and there are gaps in the ability of the BCB to exchange timely information with the FGC.

Recommendations	Time	Authorities' Actions
Microprudential and Macroprudential Institutional Arrangements (Continued)		
Strengthen legal protection of all supervisors (BCB, SUSEP) through clear rules, including fixed term, condition of dismissal, public disclosure of reasons for dismissal and qualification criteria for appointments. Strengthen the independence of the BCB.	ST	Ongoing, partly implemented. In 2021, Complementary Law 179 of 2021 was enacted, establishing the objectives of the BCB, its autonomy and the procedures to appoint and remove Board members. The law defines price stability as the primary objective of the BCB and sets four-year terms (with one possible renewal) for Board members. Most Board member terms do not coincide with the presidential term. The law also establishes the cases in which the removal of Board members is admissible (i.e. proven and recurring underperformance, with approval by an absolute majority of the Senate). The law also provides some aspects of operational autonomy, delegation of decisions about other monetary policy and macroprudential tools from CMN to BCB, and enhances policy transparency, such as through the publication of inflation and financial stability reports. However, it does not establish legal protection for BCB's staff. Neither does it grant effective financial and administrative independence to the BCB. The Bank Resolution bill – submitted to the lower house and currently being discussed by a special congressional committee – provides for protection of public agents. As it stands, this bill includes both a provision for legal protection and for legal defense by the General Counsel, to be covered by the BCB. There is a proposal of Constitutional Amendment (PEC 65/2023), which is devoted to establishing financial and administrative independence to the BCB. The bill rapporteur is the senator Plínio Valerio (PSDB-AM). Decree nº 9.727/2019 and Decree nº 10.829/2021 have established qualification criteria for appointments to strategic positions in the Administration, including supervisory institutions.
Increase resources of CVM and SUSEP.	ST	Not implemented. While measures are being taken to strengthen the institutional capacity of CVM and SUSEP, the 2026 FSAP assessment point to serious resource constraints in these institutions. For SUSEP, the 2025 budget provides for a significant increase in its discretionary resources, approved by Congress, reversing the reduction observed in 2024. In addition, a public service examination has been launched to fill technical positions, with appointments expected later in 2025. For CVM, measures have been taken to increase available resources. In fiscal year 2024, the CVM received authorization from the Ministry of Management and Innovation in Public Services (MGI) and held a public selection process for 60 new Capital Market Federal Examiners. The new employees took office in early 2025. CVM plans to hire more examiners subject to budget approval. However, CVM staffing remains inadequate relative to its mandate in several areas, and this creates a reliance on self-regulatory organizations that should be rebalanced as more resources are available.

Recommendations	Time	Authorities' Actions
Systemic Risks		
Use Pillar 2 capital requirements to handle bank-specific risk profiles to boost their resilience as needed and to mitigate risks.	ST	Implemented. The structured and by-reference add-ons are implemented in the BCB's supervisory methodology. The Structured Add-on is fully implemented (segments from S1 to S4). The Add-on by Reference is applied to financial institutions allocated to Segments S1 and S2 and includes metrics for credit concentration risk and Interest Rate Risk of Banking Book (IRRBB). Financial Institutions Banks with identified as having an exposures not adequately considered in captured by Pillar 1 capital requirements – according to BCB's estimates – in one of these two approaches have are required to regularly reported add-on regularly to the BCB.
Financial Sector Oversight		
Upgrade the banking sector's regulatory and supervisory approach to credit risk—including identification and definitions, limits, and reporting requirements—for related party exposures and transactions, large exposures, country and transfer risk and restructured loans.	MT	Implemented. The CMN issued Resolution 4,677/2018 (Basel III reform on Large Exposure Limits), establishing limits and report requirements for single client and large exposures. Rules have been applied for Prudential Segments S1 and S2 since January 2019 and for Segments S3, S4 and S5 since January 2020. The Report on Operational Limits—DLO (Circular Letter 3,926) includes information on large exposure limits. The CMN issued Resolution 4.693/2018 addressing credit operations between related parties. Accordingly, accounting items were created as of January 2019 to collect information from Related Parties, in which financial institutions report the greatest significant exposures, i.e. exposures to counterparties (natural person and legal entity) or groups that exceed certain quantitative thresholds which could pose material risk to the institution and other exposures with related parties. A field is also included in the credit information system to inform whether the contracted operation is being carried out with related parties. The CMN amended regulation on risk management (Resolution 4.557/2017) to include section establishing specific requirements for country and transfer risks, with specific treatment of indirect risks addressing both direct and indirect exposures with tailored supervisory requirements. IFRS 9 regulation has been implemented since January 2025, marking a significant advancement in credit risk measurement aligned with international good practices.

Recommendations	Time	Authorities' Actions
Financial Sector Oversight (Continued)		
Strengthen enforcement function of CVM by raising the level of sanctions and ensuring adequate resources for prosecution; strengthen cooperation allowing CVM proper oversight of ANBIMA's SRO activities in the investment fund sector.	ST	Partly implemented, ongoing. The CVM has used its enhanced enforcement powers under the 2017 legislation, including through the use of settlement agreements and higher levels of financial sanctions. However, Commissioner vacancies appear to align with fewer enforcement cases being taken to trial sessions. The Technical Cooperation Agreement for the Use of Self-Regulation in the Brazilian Investment Fund Industry, established between CVM and ANBIMA, was reviewed and updated on December 19, 2024. On January 24, 2025, the 1st Addendum to the Agreement was signed, which included FIDCs and FICFIDCs in the Agreement. These are the first types of alternative funds to be included in the Agreement, which previously only applied to liquid funds. As of January 2025, the Agreement is understood to cover over 90% of Brazil's fund industry, including more than 28,000 Investment Funds. CVM Resolution No. 175, dated December 23, 2022, has strengthened fund regulation more broadly, lack of CVM resources continues to constrain oversight of self-regulatory organizations.
Implement (BCB, ANS and SUSEP) consistent group-wide supervision of insurance groups and conglomerates with joint rulemaking, implementation, and on-site inspections and granular data sharing.	MT	Partly implemented. Each organization has improved group supervision and conglomerate supervision and some impediments to information sharing have been removed. However, a joint approach to group supervision is not yet in place. Further improvements are needed to facilitate joint examinations and similar co-working projects, develop platforms to share confidential granular data and information to support this level of cooperation and sharing and on the establishment of partnerships among the supervisors.

Recommendations	Time	Authorities' Actions
Crisis Management and Bank Resolution, Safety Nets		
Revise the draft resolution law in line with the FSAP team's recommendations and promptly enact it.	ST	Partly implemented. The Central Bank analyzed the recommendations of the FSAP 2018 and included a large part of them in the bill. The draft bill was submitted to Congress in December 2019. The Bill of Law 281 of 2019 is pending appreciation by the Lower Chamber.
Revise the ELA framework to provide for a solvency test tied to enhanced supervision, remedial plans, and possibly restructuring measures, and allow for ELA in systemic circumstances upon a MoF indemnity.	ST	Partly implemented. The BCB does not plan to fully adopt this recommendation. While solvency analysis is important for ELA assessment, the BCB does not agree that being solvent on a point-in-time basis should be the main determinant of ELA approval, as it may bind ELA approval and lead to moral hazard. The systemic impact of a negative response to an ELA request is also relevant, so the BCB prefers to retain the flexibility to decide, with its discretionary power. A law was passed obliging the government to automatically recapitalize the BCB in the event of losses, which provides the BCB with coverage against ELA losses. A further indemnity agreement would enhance this protection in the case of uncollateralized lending in systemic situations. The BCB disagrees that this is necessary. In April 2020, the BCB successfully deployed Temporary Liquidity Facilities (ELA for the COVID-19 crisis) without incurring balance sheet losses. New permanent liquidity facilities were introduced in November 2021: the Immediate Liquidity Facility (LLI) and the Term Liquidity Facility (LLT). As of Q3 2024, the LLT has included CCBs ("Cédula de Crédito Bancário", a type of bank credit note similar to a promissory note in the US) in its collateral framework, alongside corporate bonds and commercial paper as eligible asset classes. The LLT serves as both a backstop liquidity facility and an ELA mechanism. Regulation of these facilities focuses on mitigating stigma, ensuring operational preparedness for a swift and efficient response, and managing central bank risk effectively.
Put in place mechanisms to ensure lending from the deposit insurance fund is not used to maintain weak or insolvent banks in operation; and transform FGC into a fully owned public institution.	ST; MT	Partly implemented. The FGC has amended its by-laws to establish communication to the BCB prior to each liquidity assistance operation. The BCB has signed a MoU with the FGC to grant access to detailed supervisory information on financial institutions that are FGC members. The Management Committee of the MoU was set as a permanent forum for information sharing and collaboration between the parties to facilitate FGC assessment. However, FGC is still able to offer open bank assistance, which is a task that should be eliminated from the legal framework. The recommendation to transform the FGC into a fully public-owned institution will not be implemented.

Recommendations	Time	Authorities' Actions
Financial Integrity		
Complete the national AML/CFT risk assessment and introduce a risk-based approach specific to AML/CFT supervision.	ST	Implemented. The coordination of the activities related to the National AML/CFT Risk Assessment is attributed to the Brazilian Intelligence Unit (Coaf). The decree to establish the Strategic Committee for the National AML/CFT Risk Assessment was issued in March 2020. The risk assessment was completed and published in 2021.
Financial Intermediation Efficiency		
Foster competition through client mobility and financial product cost transparency and comparability.	ST	Resolution CMN 5,058/2022 grants customers the right to have their salary deposited in their preferred institution. Key points include: (i) Salaries can be transferred to deposit or payment accounts, allowing banks and payment institutions to compete equally; (ii) Customers can directly request salary portability to avoid friction with banks when switching institutions. The Credit Registry Law, in effect since 2011, was amended by Complementary Law 166/2019, and regulated by Resolution CMN 4,737/2019, to adopt an opt-out instead of an opt-in model. Resolution CMN 4,734/2019 and Resolution BCB 264/2022 set rules for registering and blocking credit and debit card receivables used as collateral. These measures ensure the blocked receivables don't exceed the transaction's outstanding balance and allow retailers to discount their receivables at any financial institution of their choice. In 2022, regulations related to credit portability were revised and consolidated under Resolution CMN 5,057/2022. The primary objective of this consolidation was to simplify and unify various normative acts without introducing significant alterations to the core subject matter. Certain clarifications were made to promote the portability of credit operations by legal entities. The scope of credit modalities eligible for portability between financial institutions was expanded in 2019 by Resolution CMN 4,762/2019, which encompassed credit granted to individual microentrepreneurs and legal entities. Furthermore, additional credit modalities were incorporated into the list of options available for credit portability, thereby offering a broader range of choices to financial customers. For example, this included the ability to convert revolving credit operations into personal credit lines with a fixed number of installments.

Recommendations	Time	Authorities' Actions
Financial Intermediation Efficiency (Continued)		
	ST	In December 2023, the BCB amended Resolution BCB 96/2021 with Resolution BCB 365/2023 to enhance transparency in payment accounts, including credit cards. The changes aim to help cardholders better understand credit card statements and promote responsible credit practices to reduce household over-indebtedness and default risk. The Open Finance model in Brazil, regulated by Joint Resolution CMN-BCB No. 1/2020 and the General Data Protection Law (No. 13,709/2018), enhances client mobility and transparency of costs. It involves data and service sharing among regulated entities at customers' discretion, ensuring secure and convenient procedures. For next steps, the Central Bank of Brazil is considering the expansion of the data scope, so that clients are allowed to share data on insurance and pension funds; an evolution of direct debit, which is going to be called Automatic Pix; credit, wage and investments portability processes done through Open Finance; and a credit marketplace, which will allow the client to request for credit proposals on a single journey, analyze the ones received and contract the ones that is the best for him/her.
Reform of Public Banks		
Change product offering of BNDES under new strategy with focus on catalyzing private sector finance and developing the financial sector.	ST	In 2024, BNDES maintained its agenda to revitalize the industry sector and promote an inclusive, green, digital, innovative, and creative economy. BNDES wants the private sector to be its partner on this agenda, gathering strengths to induce sustainable development. To achieve this goal, it maintained efforts to diversify its funding sources, particularly by issuing the development bond (LCD), a tax-exempt bond, and increasing the amount of resources from sustainable funds. In this regard, it maintained its efforts to enlarge and develop market-based financial instruments to promote long term development and to promote the decarbonization of the economy. This initiative includes fostering domestic credit and capital markets, and improving access to international funding. The Bank is also seeking to improve lending operations through partnerships with multilateral development institutions. The BNDES strategic plan envisages the reduction of risks on infrastructure investment, which will help catalyze private sector finance and embraces the climate agenda. Among the initiatives on social inclusion, BNDES wants to promote credit cooperatives and intensify its support through microcredit. The Bank also intends to design better financial solutions dedicated to SME's, including through capital markets.

Recommendations	Time	Authorities' Actions
Reform of Public Banks (Continued)		
Focus Caixa on core activities, improve governance, and invite a strategic investor.	ST	CAIXA maintains its strategic focus on credit operations by prioritizing loans to micro companies, payroll-deducted loans, and housing sector financing, strengthening its role in the "Minha Casa Minha Vida" program.In parallel, the company is also advancing its corporate governance practices, in line with the principles of integrity, transparency, accountability, equity and sustainability. These principles are observed through good corporate governance practices that convert them into objective recommendations, aligning interests with the purpose of preserving and optimizing the long-term economic value of the organization, contributing to the quality of management, its longevity and the common good. Gender diversity continues to be a priority for the company. Through its subsidiaries, Caixa has, since 2019, entered into several strategic partnerships in the insurance and card segments. In parallel, Caixa's insurance holding company (Caixa Seguridade Participações S/A) raised capital through an initial public offering (IPO) in April 2021, followed by a subsequent public offering (follow-on) in March 2025. CAIXA's investment banking group was strengthened with the internal reallocation of professionals, aiming at expanding the Bank's pre-existing fixed income capital markets' operation and create a complete structure of investment bank products. With the dissolution of CAIXAPAR in 2021, CAIXA incorporated its equity holdings. Additionally, the company has spun off its payment processing, asset management, and lottery operations into specialized subsidiaries.

Annex III. Risk Assessment Matrix (RAM) [1]

Risks	Likelihood	Impact
Conjunctural Risks		
Protectionism and Trade Disruptions. Tariff and nontariff measures disrupt global supply chains, weighing on activity while increasing inflation. Trade diversion triggers broader protectionism.	High	Brazil could experience modest positive trade diversion effects, including for agricultural products, although these are likely to be more than offset by negative indirect effects from global policy uncertainty, as elevated and wide-ranging policy uncertainty weighs on sentiment and holds back consumption and investment.
Geopolitical Tensions and Intensification of Conflicts. Rising geopolitical tensions, and a weakening of multilateralism, raise the risk of an escalation in military conflicts, accompanied by damage to key physical and financial infrastructure, disruptions in major transit routes and supply chains, higher migration pressures, additional financial frictions and market volatility.	High	Lower economic productivity and higher input costs weaken economic activity for all jurisdictions engaged in trade. Brazil's trade-to-GDP ratio is relatively low, which would contain negative growth effects to an extent.
Commodity Price Volatility. Supply and demand imbalances—triggered by geopolitical tensions, coordinated production decisions, shifts in investor preferences, or structural changes in demand—fuel commodity price swings, amplifying external and fiscal pressures, social unrest, and macro instability.	High	With Brazil having transitioned from a net importer of energy to a net exporter, low and volatile energy prices could have a negative impact. Higher prices would have a positive effect on revenue but could increase inflation pressures. An extended period of commodity price volatility, regardless of the direction of change in prices, would weigh on investment.

[1] The RAM shows events that could materially alter the baseline scenario. The relative likelihood is the staff's subjective assessment of the risks surrounding the baseline (with respective probabilities as "low" = below 10, "medium" = 10–30, and "high" = 30–50 percent) in the next 1–3 years.

Risks	Likelihood	Impact
Conjunctural Risks		
Fiscal Vulnerabilities and Higher Interest Rates. Higher public debt and deficit levels put further upward pressure on long-term interest rates, sharply tightening global financial conditions, amplifying currency volatility, and reducing consumption and investment that exacerbate adverse debt dynamics. Disruptions are amplified by increased role of price-sensitive investors and leveraged NBFIs in sovereign debt markets, limited market absorption capacity when NBFIs offload debt securities, higher roll-over needs on shorter sovereign debt maturities, and strong sovereign-financial nexus. Concurrently, capital outflows from emerging and developing economies elicit a sharp increase in short-term rates.	High	External shocks could trigger a concern over risks of the Brazilian sovereign debt burden growing too high, resulting in higher debt service costs. Slower-than-envisaged fiscal consolidation would further pressure public debt, risk premiums, and borrowing costs, which subsequently would weaken investment and growth. Currency depreciation would occur amid lower investor sentiment.
Structural Risks		
Cyberthreats. Cyberattacks on physical or digital infrastructure, technical failures, or misuse of AI technologies could trigger financial and economic instability.	High	Cyberattacks could disrupt economic activity and adversely affect the financial sector given the high degree of digitalization in Brazil. A resulting loss of confidence could hinder the digitalization process going forward.
Climate change. Extreme climate events in parts of Brazil could cause loss of life, damage to infrastructure, food insecurity, supply disruptions, and heighten economic and financial instability.	Medium	Droughts and extreme temperatures threaten electricity and agricultural sector productivity, while floods and severe storms could affect and destroy buildings and livelihoods in parts of Brazil. Growth and urbanization are increasing exposures, there is a high protection gap, and sizable exposure from financial institutions to climate-sensitive industries.

Annex IV. Stress Testing Matrix (STeM)

Table 1. Banking Sector Solvency Stress Test Matrix (STeM)		
1. Institutional Perimeter	Institutions included	83 financial institutions. The sample includes the largest digital banks.
	Market share	The 83 FIs cover 95 percent of banking sector assets.
	Data and baseline date	• Data vintage: 2025Q4. • Supervisory data: supervisory reports and credit registry (SCR) data provided by the BCB. • Complemented with IMF's WEO database, public sources, and commercial databases such as Haver, Bloomberg and Fitch for bond yields and spreads. • Level of consolidation: prudential conglomerate having their headquarters in Brazil. Prudential conglomerates include NBFI activities such as asset management, but exclude insurance companies.
2. Channels of Risk Propagation	Methodology and satellite models	• Balance-sheet based tool and satellite models developed by the FSAP team. • Static balance-sheet approach, allowing the re-issuance of maturing loans at current market rates. • Credit risk is modeled using an IFRS 9 transition matrix approach. Since IFRS 9 provisioning in Brazil started only in 2025, the initial and historical transition matrices are estimated using the AA-H credit categories (system used until 2024) to proxy the IFRS 9 Stages 1-3 in stock and flow terms. The transition matrices are then projected using a "beta-linking" methodology: the PD projections are used to derive projections for the state transitions based on estimated historical elasticities. • Market risk impacts from the revaluation of instruments at fair value are assessed using a discounted cashflow approach for securities traded in Brazil and a modified duration approach for securities traded abroad to cover interest rate and risk spread shocks. Net open positions are used for FX, inflation, equity and commodity price shocks. The analysis uses a one-off market stress scenario calibrated to a 30-day window. • Net Interest Income: interest income and expense are projected using a combination of econometric satellite models and a structural model based on the repricing structure of banks' balance sheet and historical data on interest rates of new originations.

		• Net Fees and Commissions Income (NFCI): the NFCI ratio is stressed using a statistical approach. In the baseline, it is assumed to remain constant at the same level as in the cut-off date. Meanwhile, in the adverse the NFCI ratio is reduced by two standard-deviations, where the standard deviation is computed relative to an HP trend (this approach is adopted because, on aggregate, the NFCI ratio has trended downwards since the pandemic).
3. Tail Shocks	Stress test horizon	2026 – 2028 (three years)
	Scenario	Three scenarios with annual frequency: • A baseline scenario drawn from the April 2026 WEO macroeconomic projections, complemented with Focus Survey expectations for the SELIC rate and exchange rate. • Adverse scenario 1 ("recessionary scenario"): A synchronized global recession leads to a domestic downturn and sharply lower asset prices. With a negative output gap, inflation and policy rates decrease. • Adverse scenario 2 ("sovereign debt distress scenario"): A global recession triggers a confidence crisis regarding Brazil's fiscal position as markets question the credibility of its fiscal rule. This leads to a risk-off event, with sharp FX depreciation. As a result, inflation increases, and the BCB increases policy rates. • The two adverse scenarios are derived from the GFM, a structural macro econometric model of the world economy, disaggregated into 40 national economies (including Brazil), documented in Vitek (2018). • Given the domestic orientation of banks, the scenarios focus on domestic macro-financial variables (e.g., GDP, policy rate, real estate and equity prices).
	Sensitivity analysis	• Market risk revaluation of instruments in the Amortized Cost category. • Portfolio concentration risks on the asset side are analyzed by assuming default on top-5 nonfinancial exposures, under various assumptions regarding LGDs (25, 50, 75 percent) and haircuts on collateral values (0, 25, 50 percent). • Increased Fintech competition (50 percent increase in Fintech market share) compresses NIMs. Magnitude linked to analysis in IMF 2025 Staff Report. • Increase in consumer credit PDs, due to high household indebtedness

4. Risks and Buffers	Risk covered	Risks covered include credit, market (valuation impact of financial instruments with respect to market risk factors such as interest rates, foreign exchange, credit spread, equity prices), interest rate risk, and NFCI. The analysis also considered the effect on capital of the transitional arrangement for Deferred Tax Assets, which implies that banks that do not have sufficient taxable income to amortize the transitional stock starting in 2026 will face an impact on their capital adequacy ratios.
	Behavioral Adjustment	• Static balance sheet approach: size of portfolios (gross of NPLs) remains constant throughout the stress testing horizon (with write-off rate calculated so that NPL ratio is constant in the baseline). • RWAs are projected assuming constant risk-weight densities for performing and non-performing loans. Therefore, RWAs change only due to the flows between performing and non-performing stages. • Non-performing loans are assumed to accrue zero interest income. • Dividends are paid out by banks that remain profitable and adequately capitalized. Taxes are set using the statutory tax rate of 45 percent, while the dividend rate is set at 60 percent based BCB calculations at the aggregate level. No new capital injections are considered.
5. Regulatory and Market-Based Standards and Parameters		The hurdle rate includes the Basel minimum capital requirement (4.5, 6 and 8 percent for CET1, T1 and total capital ratios, respectively), DSIB buffers, and Pillar II requirements. The CCoB and CCyB (2.5 and 0 percent, respectively) are considered part of the hurdle in the baseline scenario, but they are excluded from the hurdle in the adverse scenarios.
6. Reporting Form for Results	Output presentation	• Aggregate capital path for each scenario, by clusters of banks (categorized by size in terms of assets, Digital vs non-digital, and private vs public). • Aggregate capital shortfall relative to the hurdle. • Number of banks and percentage of banking assets in the system that fall below the hurdle rate. Outputs also include information on impact of different result drivers, including profit components.

Banking Sector Liquidity Stress Test Matrix (STeM)		
1. Institutional Perimeter	Institutions included	83 deposit-taking institutions (referred to as banks)
	Market share	The 83 banks cover 95 percent of banking sector assets.
	Data and baseline date	• Data vintage: 2025Q4 Source: supervisory data, credit registry, repo trade repository
	Methodology	• Structural Liquidity Analysis: LCR (30-day horizon), NSFR (1 year horizon) • Cash-flow based liquidity stress test using maturity buckets (1 week, 30 days) by banks, incorporating both contractual and behavioral (where available) assumption about combined interaction of funding and market liquidity and different levels of central bank support Liquidity test in BRL.
2. Channels of Risk Propagation	Risks	• Funding liquidity • Market liquidity
3. Risks and Buffers	Buffers	• The counterbalancing capacity, including liquidity obtained from markets and/or the central bank's facilities. Expected cash inflows are included in the cash-flow stress test.
4. Tail shocks	Size of the shock	• The run-off rates are calibrated to reflect scenarios of system-wide deposit runs and dry-up of unsecured wholesale and retail funding, which is calibrated following historical events, recent international experience in liquidity crisis and IMF expert judgment. • The haircuts of high-quality liquid assets (HQLA) are calibrated against BRB haircuts and a market shock for investment securities and money market instruments.
5. Regulatory and Market-Based Standards and Parameters	Regulatory standards	• Consistent with Basel III regulatory framework (LCR). • Liquidity shortfall by bank.
6. Reporting Format for Results	Output presentation	• Liquidity ratio or shortfall by groups of banks and systemwide demand of reserves. • Number of banks that fail to meet their obligations.

Interconnectedness Analysis		
The scope of the analysis would include fire-sale contagion risks stemming from the deleveraging of Brazilian investment funds, including multimarket funds, fixed income funds, and private banks with large trading portfolios. The analysis would leverage regulatory data from the BCB and the CVM, complemented by ANBIMA's corporate bond data. It would also cover the repo and derivatives markets, with data from B3 enabling the assessment of margin calls and haircut dynamics in these markets.		
1. Institutional Perimeter	Institutions included	Investment funds with focus on fixed income funds and multi-asset funds and private banks with large active trading portfolio [this depends on data availability].
2. Channels of Risk Propagation	Market share	Aiming to cover 80 percent of assets under management.
	Data and baseline date	• 2025 Q2 for shocks (tentative). • 2020-2024 for time series of market prices which securities are modeled.
	Methodology	• Liquidity measure based on cash and high-quality liquid assets, potentially complemented by Expanded Liquidity Ratio used by the BCB. • Market depth models incorporate second-round effects from asset sales, accounting for market liquidity.
3. Risks and Buffers	Risks	• Severe redemption shocks, with additional liquidity needs arising from margin calls on derivatives and collateral calls on repos. • Funding liquidity stress due to outflows and limited ability to liquidate assets to meet redemptions. • Market liquidity constraints leading to second-round price effects Margin calls triggering second-round liquidity pressures. • Increased liquidity demand from investment funds to the banking sector.
	Buffers	• Holdings of liquid assets, including cash and reverse repo positions.

4. Tail Shocks	Sensitivity analysis	• Market scenario: calibrated based on the expected shortfall at a sufficiently high percentile of the marginal distributions of market factors over the scenario's holding period. • Redemption shock calibrated using historical data and aligned with the market scenario. • Second-round effects arising from asset price impacts due to forced sales. • Parameters of the market impact model. • Parameters of the investment funds' response function to price shocks.
5. Reporting Form for Results	Output presentation	• Decline in key assets prices due to fire sales. • The amount of central bank intervention for financial market stability under fire sales pressure.
Bank-NBFI Contagion Risk Analysis		
1. Institutional perimeter	Institutions included	83 banks, 20,782 funds.
	Market share	Around 95 percent of the banking sector assets and the entire investment fund sector.
	Data and horizon	• Data vintage: 2025Q4. Data: Supervisory data, securities holdings data.
2. Methodology	Methodology	Based on Covi, G., Gorpe, M. Z., & Kok, C. (2021). "CoMap: Mapping Contagion in the Euro Area Banking Sector".
	Risks/factors assessed	• Credit default channel. • Funding withdrawal channel. Market repricing channel for traded securities.
3. Type of analyses	Idiosyncratic shock simulation	• "Baseline simulation" hypothetical failure of each entity as a potential trigger event with model parameters calibrated as in CoMap paper.
	Scenario analysis	• "Solvency scenario" starting point for capital and assets from year 1 of bank solvency stress test, including market risk shock. • "Liquidity scenario" starting point for liquid assets from cash flow stress test 3-months scenario. • "Market shock" to a specific asset class (e.g., corporate bonds) triggering a valuation haircut.
4. Buffers	Behavioral adjustments	• The approach simulates cascading defaults. No mitigating actions are assumed.
	Buffers	• CET1 over bank specific regulatory leverage ratio (solvency), and counterbalancing capacity (liquidity).

5. Regulatory standards	Regulatory/ standards	• Bank specific minimum CET1 ratio (Pillar 1+Pillar 2R) (solvency), and liquidity reserves (HQLA) minimum net outflows (liquidity). • Uniform thresholds for redemption coverage ratio and NAV depletion.
6. Reporting format for results	Outputs and presentation	• Number of institutions in solvency or liquidity distress. • Capital shortfall and NAV depletion systemwide and by group (impact and vulnerability scores). • Amplification and cascade effects, and tipping points in the system.
Insurance Sector Stress Testing Matrix (STeM)		
1. Institutional perimeter	Institutions included	• 149 SUSEP-supervised institutions, including insurers and local reinsurers, and excluding capitalization companies.[30]
	Market share	• 96 percent of total assets of SUSEP-supervised insurers and local reinsurers.
	Data and horizon	• SUSEP regulatory reporting; December 31, 2025.
2. Channels of Risk Propagation	Methodology	• Discounted cash flow approach for investment assets and technical provisions, with post-shock revaluation.
3. Tail Shocks	Stress test horizon	• Instantaneous shock.
	Scenario	• Aligned with the banking sector market risk scenario.
4. Risk and Buffers	Risk covered	• Market risk, including valuation effects on financial instruments and technical provisions with respect to interest rates, foreign exchange, credit spreads, and equity prices.
5. Regulatory standards and parameters	Regulatory/ accounting standards	• Brazilian risk-based solvency framework (SUSEP/CNSP). • National GAAP (BR GAAP – CPC), IFRS-converged.
6. Reporting format for results	Outputs and presentation	• Impact on assets and liabilities. • Distributional measures of impacts on assets, liabilities, and solvency ratios.

[30] Capitalization entities are financial institutions supervised by SUSEP that issue capitalization bonds (títulos de capitalização). These products combine forced savings with prize drawings and entitle the holder to receive a predefined capital amount at maturity, subject to contractual conditions. These entities do not provide risk coverage and are therefore excluded from the analysis.

Climate Risk Analysis Matrix (STeM)		
1. Institutional perimeter	Institutions included	• Banking sector climate risk analysis: same as in the banking sector stress testing. • Climate-related (re)insurers flows: 84 insurers, and 126 reinsurers.
	Market share	• Banking sector climate risk analysis: same as in the banking sector stress testing. • Climate-related (re)insurers flows: selected business lines, covering 100 percent of domestic (re)insurance flows.
	Data and horizon	• Individual banks' exposure by sector at the municipality level from BCB; December 2025. • Public and authorities' data on climate-related hazards and climate projections. • Individual climate-related claims data from SUSEP; 2004- 2022 property insurance; 2006 – 2024 agricultural insurance. • Individual climate-related (re)insurers' premium and claims flows from SUSEP; 2024.
2. Channels of Risk Propagation	Methodology	Banking sector climate risk analysis: • Structural approach to assess impacts on PDs (Corporates) and LGDs (Households and Corporates). • Hazard focus on floods, storms, and droughts. • Exposures based on individual banks' sectoral exposures at the municipality level. • Damage functions calibrated using individual claims data. • OMEGA model to obtain change in sectoral outputs, and Corporate analysis to link into PDs Climate-related (re)insurers' premium and claims concentration, dependency, and network topology.
3. Tail Shocks	Stress test horizon	• Banking sector climate risk analysis: single shock.
	Scenario	• Banking sector climate risk analysis: mid-century climate conditions based on IPCC scenarios.
4. Risk and Buffers	Risk covered	• Banking sector climate risk analysis: credit risk from changes physical risk conditions. • Climate-related (re)insurers flows: Climate risk transfer.
5. Reporting format for results	Outputs and presentation	• Banks' exposure to hazards metrics. • Damage functions calibration for floods, storms, fires, and droughts. • Impact on banks' PDs, LGDs, and capital ratio. • Climate-related (re)insurers premium and claim metrics concentration, dependency, and network metrics.

Annex V. Banking Sector Liquidity Stress Test: Key Assumptions

	Code	Item Name		LCR	1-week	1-month
OUTFLOWS	1.1	Securities issued		100	100	100
	1.2	Secured lending and capital market driven transactions collateralized by repo outflows:				
	1.2.1	Level 1 tradable assets		0	38	18
	1.2.2	Level 2A tradable assets		15	48	21
	1.2.3	Level 2B tradable assets		25-50	49	24
	1.2.4	other tradable assets		100	48	24
	1.3.1	Judicial Deposits		20-100	10	10
	1.3.2.1	13.2 Demand Deposits (DD)	DD - Households	5-20	4	2.5
	1.3.2.2		DD - Corporate	5-40	6	4
	1.3.2.3		DD - Investment Funds	100	40	25
	1.3.2.4		DD - Other Financial	25-100	40	25
	1.3.2.5		DD - Public Sector	40	16	10
	1.3.2.6		DD - Non identified	40	5	3
	1.3.3.1	13.3 Saving Deposits (SD)	SD - Households	10-20	5	3
	1.3.3.2		SD - Corporate	10-20	8	6.25
	1.3.3.3		SD - Investment Funds	100	40	25
	1.3.3.4		SD - Other Financial	100	40	25
	1.3.3.5		SD - Public Sector	40	16	10
	1.3.3.6		SD - Non identified	40	5.5	4
	1.3.4.1	13.4 Credit Bills (CB)	CB - Households	100	7	5
	1.3.4.2		CB - Corporate	100	10	7
	1.3.4.3		CB - Investment Funds	100	52	32
	1.3.4.4		CB - Other Financial	100	27	22
	1.3.4.5		CB - Public Sector	100	12	9
	1.3.4.6		CB - Non identified	100	12	9
	1.3.5.1	13.5 Term Deposits (TD)	TD - Households	5-10	5	3
	1.3.5.2		TD - Corporate	5-25	8	5
	1.3.5.3		TD - Investment Funds	100	50	30
	1.3.5.4		TD - Other Financial	25-100	25	20
	1.3.5.5		TD - Public Sector	40	10	7
	1.3.5.6		TD - Non identified	40	10	7
	13.6	Subordinated Debt		100	100	25
	1.3.7.1	13.7 Other Deposits (OD)	OD - Households	100	7	5
	1.3.7.2		OD - Corporate		10	7
	1.3.7.3		OD - Investment Funds		52	32
	1.3.7.4		OD - Other Financial		27	22
	1.3.7.5		OD - Public Sector		12	9
	1.3.7.6		OD - Non identified		12	9
	1.3.8.2	13.8 External Funding	EF- Corporate	100	100	25
	1.3.7.4		EF - Other Financial		100	25
	1.3.7.5		EF - Public Sector		100	25
	1.5	Derivatives amount payables		100	100	100
	1.6	Other outflows		100	100	100
INFLOWS	2.1	From secured lending & capital market driven transactions collateralized by repo inflows:				
	2.1.1	Level 1 tradable assets		0	44	40.50
	2.1.2	Level 2A tradable assets		15	49	48
	2.1.3	Level 2B tradable assets		25-50	49.50	49.50
	2.2	Loans		100	48	48
	2.4	Derivatives amount receivables		50-100	100	100
	2.5	Paper in own portfolio maturing		100	100	100
	2.6	Other inflows		100	100	100
CONTIN-GENCIES	4.1	Outflows from committed facilities		5-100	10	10
	4.2	Outflows from uncommitted funding facilities		2	2	2