INTERNATIONAL MONETARY FUND

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BRAZIL

July 2025

2025 ARTICLE IV CONSULTATION—PRESS RELEASE; STAFF REPORT; AND STATEMENT BY THE EXECUTIVE DIRECTOR FOR BRAZIL

Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. In the context of the 2025 Article IV consultation with Brazil, the following documents have been released and are included in this package:

- A **Press Release** summarizing the views of the Executive Board as expressed during its July 14, 2025 consideration of the staff report that concluded the Article IV consultation with Brazil.
- The **Staff Report** prepared by a staff team of the IMF for the Executive Board's consideration on July 14, 2025, following discussions that ended on June 2, 2025, with the officials of Brazil on economic developments and policies. Based on information available at the time of these discussions, the staff report was completed on June 27, 2025.
- An **Informational Annex** prepared by the IMF staff.
- A **Statement by the Executive Director** for Brazil.

The IMF's transparency policy allows for the deletion of market-sensitive information and premature disclosure of the authorities' policy intentions in published staff reports and other documents.

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International Monetary Fund
Washington, D.C.

IMF Executive Board Concludes 2025 Article IV Consultation with Brazil

FOR IMMEDIATE RELEASE

- The Executive Board of the International Monetary Fund (IMF) concluded the 2025 Article IV consultation with Brazil on July 14, 2025.

- Brazil's economy has grown strongly over the past three years, surprising on the upside. Inflation rebounded in 2024 amid strong demand, a rise in food prices, and currency depreciation, exceeding the target tolerance interval. IMF staff expects growth to moderate in the near term as inflation converges to target, and then strengthen to 2.5 percent over the medium term.

- The pivot to a monetary policy tightening cycle in September 2024 was appropriate and consistent with bringing inflation and inflation expectations back to the 3 percent target. The authorities' efforts to continue improving the fiscal position, while trying to meet social spending and investment needs, are welcome and further steps are warranted. The authorities are advancing their sustainable and inclusive growth agenda.

Washington, DC – July 17, 2025: The Executive Board of the International Monetary Fund (IMF) completed the Article IV Consultation for Brazil.[1] The authorities have consented to the publication of the Staff Report prepared for this consultation.[2]

Brazil's economy has grown strongly over the past three years, surprising on the upside, and, as expected, is showing signs of moderation. The expansion has reflected strong consumption supported by fiscal stimulus on the demand side, and supply-side factors.

Growth is projected to moderate from 3.4 percent in 2024 to 2.3 percent in 2025, amid tight monetary and financial conditions, a scaling back of fiscal support, and heightened global policy uncertainty. Over the medium term, growth is forecasted to recover to 2.5 percent, supported by the normalization of monetary policy and supportive structural factors, notably the implementation of the efficiency-enhancing VAT reform and the acceleration in

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[1] Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. A staff team visits the country, collects economic and financial information, and discusses with officials the country's economic developments and policies. On return to headquarters, the staff prepares a report, which forms the basis for discussion by the Executive Board.

[2] Under the IMF's Articles of Agreement, publication of documents that pertain to member countries is voluntary and requires the member consent. The staff report will be shortly published on the www.imf.org/Brazil page.

hydrocarbon production. Inflation is expected to reach 5.2 percent by end-2025, before gradually converging to the 3 percent target by end-2027.

The balance of risks to the growth outlook is tilted to the downside amid heightened global policy uncertainty. Risks to the inflation outlook are broadly balanced. In the near term, higher growth could stem from stronger-than-expected household consumption in the context of a still tight labor market. Over the medium term, upside risks stem from faster implementation of productivity-enhancing reforms and the Ecological Transformation Plan. Downside risks stem externally from a slowdown in major economies amid heightened global trade tensions and policy uncertainty; and domestically from larger-than-expected effects from monetary policy tightening and the possibility of a lower-than-envisaged fiscal effort, which—while supporting near-term growth—could increase policy uncertainty, resulting in higher borrowing costs, weaker investment, and ultimately lower growth.

Executive Board Assessment[3]

Executive Directors welcomed the Brazilian economy's strong growth performance and falling unemployment and poverty in recent years, and commended the progress in structural reforms which has helped lift medium-term growth prospects. Noting downside risks, including from the recent increase in global policy uncertainty and heightened trade tensions, Directors encouraged the authorities to ensure the continued convergence of inflation to target, secure fiscal sustainability, and continue structural reforms to tackle long-standing challenges.

Directors commended the authorities' efforts to continue improving the fiscal position and recommended further steps to put public debt on a firm downward path, facilitate a lower path of interest rates, and open space for priority investments. They concurred that measures to mobilize revenues, including rationalizing inefficient tax expenditures and tackling budget rigidities, would support these efforts. Directors considered that the ongoing VAT reform would simplify the tax system and boost productivity, and recommended personal income tax reforms to enhance the tax system's progressivity and domestic revenue mobilization. An enhanced fiscal framework with a strong medium-term anchor would reinforce credibility and sustainability.

Directors commended the Central Bank of Brazil's (BCB) clear commitment to price stability and indicated that the monetary policy tightening has been appropriate and consistent with bringing inflation back to the 3 percent target. Directors also noted that the continued credibility of both fiscal and monetary policy frameworks will be important for anchoring inflation expectations. They agreed that the flexible exchange rate regime and adequate FX reserves remain valuable shock buffers. Directors encouraged the authorities to continue to gradually phase out the financial transaction tax, which would eliminate a multiple currency practice.

Directors welcomed that the financial system remains resilient, with banks highly liquid and adequately capitalized. While commending the authorities' implementation of regulatory changes aimed at further strengthening financial sector resilience, Directors encouraged close

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[3] At the conclusion of the discussion, the Managing Director, as Chairman of the Board, summarizes the views of Executive Directors, and this summary is transmitted to the country's authorities. An explanation of any qualifiers used in summings up can be found here: http://www.IMF.org/external/np/sec/misc/qualifiers.htm.

monitoring and oversight of household credit risks, including in light of the recently enhanced private payroll loan program. Directors also welcomed the authorities' leadership in the financial innovation agenda, which has promoted financial inclusion, efficiency, and competition. They concurred that providing the BCB with greater administrative and financial autonomy would support continued progress with technological innovations.

Directors commended the authorities on their leadership in multilateral cooperation, including their implementation of Brazil's Ecological Transformation Plan and their progress in reducing deforestation. They positively noted that Brazil is on track to meet its Nationally Determined Contribution targets. Directors also emphasized that continued efforts to simplify regulations, strengthen the anti-corruption and AML/CFT frameworks, increase labor force participation, especially for women, and facilitate skills upgrading would further raise medium-term growth prospects, while extending gains in social inclusion.

Table 1. Brazil: Selected Economic Indicators, 2023-30

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/	2.5
Population (2024)		Access to safe water (2022)	88.0
Total (millions)	212.6		
Annual rate of growth (percent)	0.4	Education (2023)	
Density (per sq. km.)	25.0	Adult illiteracy rate	5.4
Unemployment rate 7/	6.9	Net enrollment rates, percent in:	
		Primary education	99.4
Population characteristics (2022)		Secondary education	92.2
Life expectancy at birth (years)	76.4		
Infant mortality (per thousand live births)	12.5	Poverty rate (in percent, 2023) 2/	27.4
Income distribution		GDP, local currency (2024)	R$11,745 billion
Palma ratio (2023) 3/	3.6	GDP, dollars (2024)	US$2,171 billion
Gini coefficient (post taxes and transfers, 2024)	50.6	GDP per capita (2024)	US$10,214

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
National accounts and prices								
GDP at current prices	8.6	7.3	6.2	5.8	5.8	5.9	6.0	6.1
GDP at constant prices	3.2	3.4	2.3	2.1	2.2	2.3	2.4	2.5
Consumption	3.4	4.2	2.3	1.6	1.9	2.1	2.2	2.2
Investment (GFCF)	-3.0	7.3	1.3	1.4	1.8	1.9	2.1	2.1
Consumer prices (IPCA, average)	4.6	4.4	5.3	4.2	3.3	2.9	2.9	2.9
Consumer prices (IPCA, end of period)	4.6	4.8	5.2	3.8	3.0	2.9	2.9	2.9
GDP deflator	5.2	3.8	3.8	3.6	3.5	3.5	3.5	3.5
Gross domestic investment								
Private sector	12.0	12.8	12.6	12.5	12.4	12.4	12.3	12.3
Public sector	3.8	4.1	4.1	4.1	4.1	4.1	4.1	4.1
Gross national saving								
Private sector	21.8	19.6	22.2	21.3	19.9	18.9	18.6	18.4
Public sector	-7.3	-5.5	-7.9	-7.0	-5.6	-4.5	-4.1	-4.0
Public sector finances								
Central government primary balance (national representation, incl. BCB) 4/	-2.4	-0.4	-0.6	-0.4	0.3	0.8	1.2	1.4
General government NLB primary balance	-2.2	-0.2	-0.6	-0.4	0.3	0.8	1.2	1.4
General government NLB structural primary balance (in percent of potential GDP)	-1.5	-1.4	-0.9	-0.5	0.2	0.8	1.2	1.4
General government NLB	-7.7	-6.2	-8.5	-7.6	-6.2	-5.1	-4.8	-4.6
Net public sector debt	60.4	61.5	65.7	70.2	72.6	74.0	74.7	74.3
General government gross debt, Authorities' definition	73.8	76.5	80.9	84.5	86.4	87.4	87.8	87.8
General government gross deb	84.0	87.3	91.6	95.5	97.6	98.6	99.0	98.9
Of which: Foreign currency linked	3.5	4.5	4.6	4.6	4.7	4.7	4.8	4.8
Money and credit								
Base money 5/	20.4	13.2	6.2	5.8	5.8	5.9	6.0	6.1
Broad money 6/	15.6	12.4	6.2	5.8	5.8	5.9	6.0	6.1
Bank loans to the private sector	7.0	11.3	9.2	7.5	6.6	5.9	6.0	6.1
Balance of payments								
Trade balance	92.3	65.8	60.7	64.8	67.4	70.8	73.5	76.6
Exports	343.8	339.9	342.1	350.1	360.3	373.3	386.8	400.3
Imports	251.5	274.0	281.5	285.3	292.9	302.5	313.4	323.8
Current account	-27.9	-61.2	-51.6	-51.4	-51.4	-51.3	-52.4	-53.0
Capital account and financial account	26.6	69.5	51.6	51.4	51.4	51.3	52.4	53.0
Foreign direct investment (net inflows)	37.3	46.8	48.4	50.5	52.4	54.4	56.5	58.7
Terms of trade (percentage change)	2.4	-0.7	-2.0	-1.2	-1.0	-0.5	-0.6	-0.7
Merchandise exports (in US$, annual percentage change)	1.1	-1.2	0.7	2.3	2.9	3.6	3.6	3.5
Merchandise imports (in US$, annual percentage change)	-12.9	8.9	2.7	1.4	2.7	3.3	3.6	3.3
Total external debt (in percent of GDP)	33.4	33.1	34.7	35.4	35.2	34.9	34.5	34.0
Memorandum items:								
Output Gap	0.4	1.1	0.8	0.4	0.2	0.0	0.0	0.0
Current account (in percent of GDP)	-1.3	-2.8	-2.4	-2.3	-2.2	-2.1	-2.0	-1.9
Unemployment rate 7/	8.0	6.9	7.1	7.3	7.3	7.4	7.4	7.4
Gross official reserves (in US$ billions)	355	330	330	330	330	330	330	330
REER (annual average in percent; appreciation +)	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 threshold for upper-middle income countries (U$5.5/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 definition.

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.

7/ Unemployment rate for 2022, 2023, and 2024 shows the average of March, June, September, and December.

INTERNATIONAL MONETARY FUND

BRAZIL

STAFF REPORT FOR THE 2025 ARTICLE IV CONSULTATION

June 27, 2025

KEY ISSUES

Context. GDP growth in Brazil has been remarkably resilient over the past three years and, as expected, is showing signs of moderation. The expansion has reflected strong consumption supported by fiscal stimulus on the demand side, and supply-side factors. Inflation rebounded in 2024 amid strong demand, a rise in food prices, and currency depreciation. As inflation expectations rose above the target tolerance interval, monetary policy entered a new policy tightening cycle in September. Long-standing challenges remain, including elevated public debt and spending rigidities that crowd out priority investments. The authorities have made progress on reforms to foster sustainable and inclusive growth, including implementation of VAT reform.

Outlook. GDP growth is expected to moderate during 2025-26, reflecting tight monetary policy, a scaling back of fiscal support, and heightened global policy uncertainty. It is projected to rise gradually over the medium term, supported by rising hydrocarbon production and increasing efficiency from the VAT reform. Headline inflation is expected to return to the 3 percent target by end-2027. The federal primary balance is projected to rise gradually over the medium term, contingent on the implementation of measures, with general government gross debt stabilizing at 99 percent of GDP.

Risks. Risks to the outlook are tilted to the downside amid heightened global policy uncertainty. In the near term, higher growth could stem from stronger-than-expected household consumption in the context of a still tight labor market. Over the medium term, upside risks stem from faster implementation of productivity-enhancing reforms and the Ecological Transformation Plan. Downside risks stem, externally, from a slowdown in major economies amid heightened global trade tensions and policy uncertainty; and, domestically, from larger-than-expected effects from monetary policy tightening and the possibility of a lower-than-envisaged fiscal effort, which—while supporting near-term growth—could increase policy uncertainty, resulting in higher borrowing costs, weaker investment, and ultimately lower growth.

Policy Recommendations

Monetary and Exchange Rate Policy. The Central Bank of Brazil (BCB)'s pivot to a tightening cycle in September 2024 was appropriate and consistent with bringing inflation and inflation expectations back to the 3 percent target. In the context of heightened global policy uncertainty and inflation expectations above target-consistent levels, maintaining flexibility on the pace and length of the hiking cycle is prudent. The flexible exchange rate regime and adequate FX reserves remain valuable shock buffers. FX intervention could be used to address episodes of higher risk premia when FX liquidity becomes shallow, without substituting for warranted adjustment of macroeconomic policies.

Financial Sector Policies. The financial sector was resilient in 2024 and is expected to remain so despite possibly higher risks amid restrictive interest rates. The authorities are implementing regulatory changes aimed at strengthening financial sector resilience. Reforms to facilitate a reduction in household leverage are appropriate. Continued careful management of the role for public banks is needed to mitigate any potential risks to the fiscal position, monetary policy transmission, and market efficiency.

Fiscal Policy. The authorities' efforts to continue improving the fiscal position, while protecting targeted social support and investment spending, are welcome and further steps are warranted. To put public debt on a firmly downward path and open space for priority investments, and to support monetary policy in reducing inflation and inflation expectations, staff recommends a sustained and more ambitious fiscal effort. Achieving the needed adjustment calls for further mobilizing revenue—including the phasing out of costly and inefficient tax expenditures—and tackling spending rigidities. Implementation of the VAT reform is expected to boost productivity, and efforts rightly aim to secure revenue neutrality. Enhancing tax system progressivity via personal income tax reform, while bolstering revenues, is warranted. Targeted policies and reforms are needed to mitigate mounting demographic pressures on the pension system.

Structural Reforms. Structural reforms together with expanding hydrocarbon production have lifted Brazil's medium-term growth prospects. Increasing labor force participation, notably for women, while enhancing human capital and reducing informality would further support durable and inclusive growth. Simplifying regulations, reducing the administrative burden on start-ups, easing entry barriers, and enhancing governance, would further support competition and innovation. Brazil is accelerating the implementation of its Ecological Transformation Plan aiming to foster productivity, investment, and job-rich growth. Deforestation has substantially decreased, and Brazil is on track to meet its NDC targets.

Approved By
Ana Corbacho (WHD) and Anna Ivanova (SPR)

Discussions took place in Brasília, São Paulo, and Rio de Janeiro during May 20-June 2, 2025. The mission met with Finance Minister Haddad, Central Bank Governor Galípolo, other senior public officials, and private sector representatives. The team was headed by Daniel Leigh and comprised Marco Arena, Jean Francois Clevy, Swarnali Hannan, Chao He, and Bunyada Laoprapassorn (all WHD), Yiqun Wu (SPR), and Rui Xu (MCM). André Roncaglia, Felipe Antunes and Pedro Miranda (OED) participated in many of the discussions. Ana Corbacho (WHD) joined the concluding meetings. Gabriel Moura and Christopher Evans (both WHD) contributed inputs on exchange rate dynamics; Carlos Goncalves (FAD) on inflation expectations; Zamid Aligishiev (WHD) and Karlygash Zhunussova (FAD) on climate policies; Dirk Muir (RES) on the global downside scenario; Camila Casas (WHD) and Duncan McDonald and Júlia Cots-Capell (both FAD) on female labor force participation; Andrea Medici and Marina Tavares (both RES) on structural reforms. Kristine Laluces (WHD) provided editorial assistance. Damaris Garza, Carlos Guevara, Gabriel Moura and Juan Jose Tapia (all WHD) and Sunalika Singh (FAD) provided research assistance.

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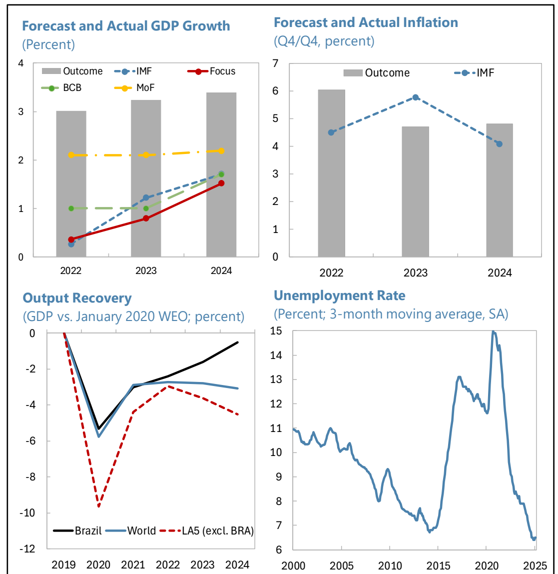
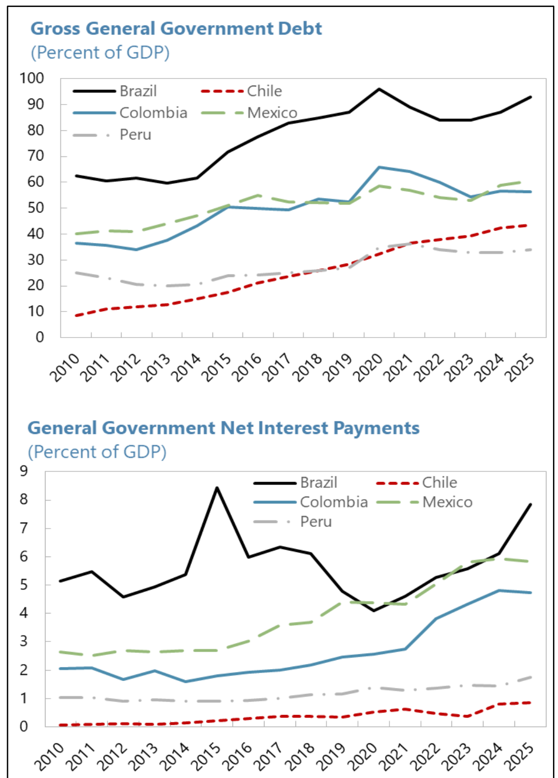
GROWTH MODERATING AFTER STRENGTH

1. Brazil's economy has grown strongly over the past three years, surprising on the upside. During 2022-2024, real GDP growth averaged 3.2 percent, outperforming forecasts by IMF staff at the start of each year by an average of 2.0 percentage points and surprising private sector analysts by even wider margins. Strong consumption supported by fiscal stimulus drove the expansion from the demand side (Annex I). Favorable supply-side factors also contributed, with record agricultural output in 2023 and oil emerging as Brazil's leading export product in 2024. Brazil's post-pandemic recovery stands out regionally and globally with real GDP near its pre-pandemic path rather than experiencing persistent negative hysteresis effects. Unemployment fell to 6.1 percent in November 2024—its lowest level in over 20 years—and poverty declined to 27.4 percent in 2023, a rate not observed since poverty statistics started to be compiled in 2012.



Sources: BCB, *Focus* survey, MoF, IBGE, Haver, WEO, Fund staff calculations.
Note: LA5 denotes Brazil, Chile, Colombia, Mexico, and Peru.



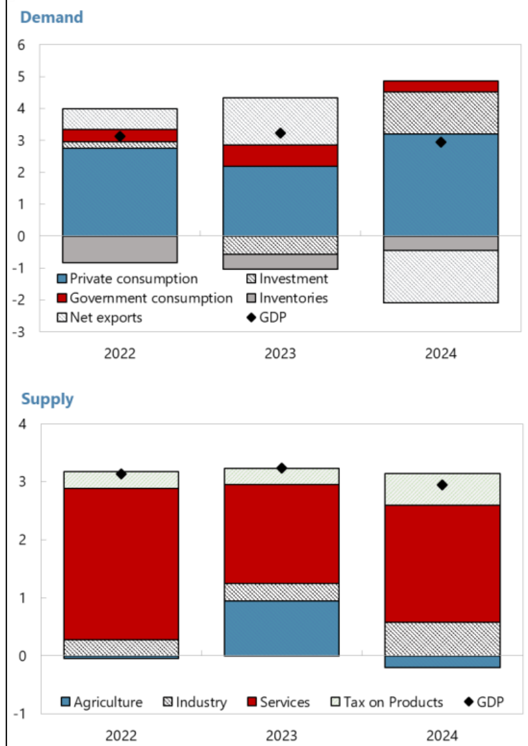
Sources: WEO databases and Fund staff calculations.

2. The authorities have been delivering on their inclusive and sustainable growth agenda. Implementation of Brazil's efficiency-enhancing value added tax (VAT) reform is proceeding, and a personal income tax (PIT) reform that aims to enhance equity while preserving revenue neutrality is under discussion in Congress. The economy's transformation is accelerating under the Ecological Transformation Plan. Deforestation significantly declined in 2023 and 2024, and the Brazilian Greenhouse Gas Emissions Trading System signed into law in December created a regulated carbon market in Brazil with limits on emissions. Brazil's Sustainable Taxonomy is expected to be operational by mid-2025 and play a crucial role in defining qualification criteria for various climate related instruments.

3. Alongside these gains, a number of macroeconomic challenges have intensified. Inflation, which had returned to the target tolerance interval in 2023, rebounded in 2024 amid strong demand, a drought-induced rise in food prices, and currency depreciation. As inflation expectations rose further above target levels, the Central Bank of Brazil (BCB) initiated a new policy tightening cycle in September 2024 and rates are now higher (in nominal and real terms) than at their post-pandemic peak in 2022. On the fiscal side, entrenched budget rigidities and a rising interest bill—estimated at 6.3 percent of GDP in 2024—have contributed to uncertainties about the future path of fiscal balances and government debt. On the external front, the changing global landscape as governments around the world reorder policy priorities and global uncertainties reach new highs is testing the resilience of all economies.

Contributions to Real GDP Growth

(Year-on-year percent change)



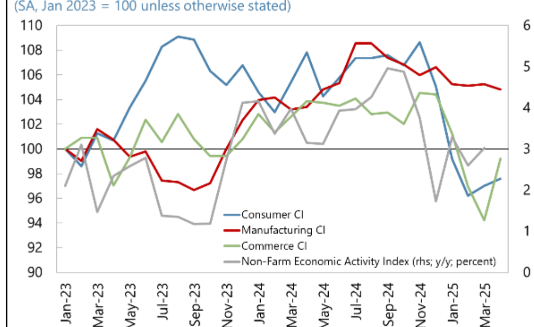
Sources: IBGE, Haver, Penn World Table, WEO, Fund staff calculations.

RECENT ECONOMIC DEVELOPMENTS

4. **Growth remained strong in 2024 and, as expected, is now showing signs of moderation.** Amid solid household disposable income growth, strong credit, and the effects of current and past fiscal support, annual real GDP growth rose from 3.2 percent in 2023 to 3.4 percent in 2024, with private consumption and investment expanding at 4.8 percent and 7.3 percent, respectively. In late 2024, however, private consumption declined and investment growth lost momentum. On the supply side, growth in services and industrial output slowed in the last quarter of 2024. In 2025 Q1, GDP expanded by 5.7 percent at a quarterly seasonally-adjusted annualized rate, driven by record agricultural output, while non-agricultural sectors contributed modestly and high-frequency indicators indicated further signs of moderation. These domestic developments come against slowing growth in Brazil's trading partners amid major policy shifts that are resetting the global trade system and giving rise to elevated levels of global policy uncertainty and weakening consumer and business confidence.

Economic Activity and Confidence Indices (CI)

(SA, Jan 2023 = 100 unless otherwise stated)



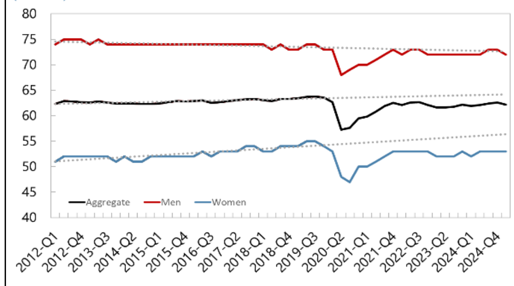
Sources: FGV, Haver, BCB; IMF staff calculations.

5. **Despite the signs of slowing growth, the labor market has remained strong, improving outcomes for historically vulnerable groups**. As the overall unemployment rate declined to 6.2 percent at the end of 2024—its lowest rate since 2000—jobless rates for workers that typically face greater difficulties in finding work, including the young and the less-educated, declined especially steeply (Box 1). The strong recovery since the pandemic has boosted both formal and informal employment growth, in contrast to past recoveries, where growth in informal employment

played a more dominant role, driven in part by structural reforms undertaken in recent years. At the same time, labor force participation (LFP) has not recovered to its pre-pandemic path, mainly due to only partial recovery of female LFP since the pandemic. Meanwhile, the proportion of households living below poverty and extreme poverty lines in 2023 fell to 27.4 percent (from 31.6 percent in 2022) and 4.4 percent (from 5.9 percent), respectively.

Labor Force Participation Rates

(Percent)



Sources: IBGE; IMF staff estimates.

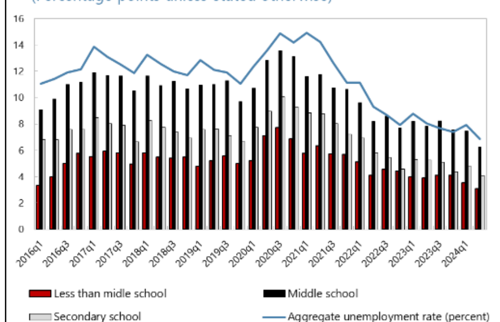
Notes: Dotted lines show pre-pandemic trend.

Box 1. A Strong Economy Has Lifted Labor Market Outcomes for Vulnerable Groups

During the ongoing economic expansion, the gap in unemployment rates between advantaged and disadvantaged demographic groups has narrowed. This development raises the question whether, along the lines of Okun's (1973) hypothesis ("Upward Mobility in a High-Pressure Economy"), the tight labor market is facilitating employment for disadvantaged groups, improving their skills and allowing them to climb up the job ladder.

Unemployment Rate Gaps Relative to Workers with College Education

(Percentage points unless stated otherwise)



Sources: PNADC; IMF staff estimates.

Staff analysis based on quarterly household-level data for Brazil during 2012-2024 suggests that youths and workers with lower education levels benefit disproportionately when aggregate unemployment falls. The analysis estimates individual workers' likelihood of unemployment using a logit regression that controls for a range of relevant demographic characteristics, controlling for the participation rate of each demographic group to account for variations in participation over the business cycle. These demographic characteristics enter the model both alone and interacted with the aggregate unemployment rate to capture how the likelihood of joblessness changes with aggregate labor market conditions.[1/] Estimates suggest that, when the aggregate unemployment rate falls, the likelihood of unemployment falls across all demographic groups. However, young workers and those without college degree see a larger drop in the likelihood of unemployment relative to older workers and those with a college degree. These results are consistent with findings for the United States (for example, Aaronson and others 2019) that labor market outcomes of disadvantaged demographic groups exhibit relatively greater sensitivity to economic cycles.[2/]

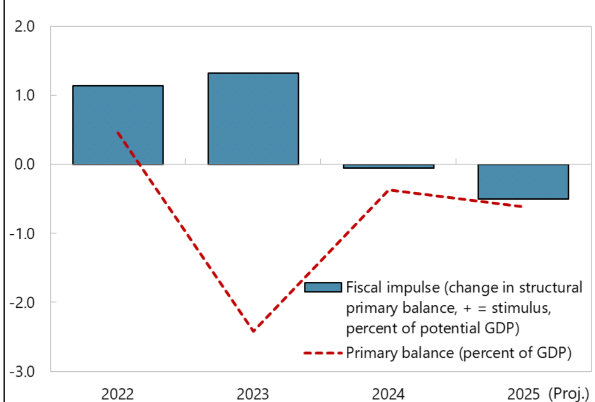
At the same time, staff analysis finds little evidence of asymmetry, implying that a cooling in economic activity could be expected—other things equal—to reverse some of the recent gains. Historically, benefits accrued by disadvantaged groups show little evidence of persisting when the economic cycle turns. This finding suggests that further structural reforms are necessary to secure lasting benefits from the expansion and address remaining challenges in the labor market.

1/ The equation estimated is: $U_{i,t}^{raeg,s} = \partial + \gamma U_t^{tot} + \left[\sum_r \propto_r I(race_i = r) + \sum_a \propto_a I\left(age_{i,t} = a\right) + \sum_e \propto_e I\left(edu_{i,t} = e\right) + \sum_s \propto_s I(gender_i = g)\right] + \left[\sum_r \beta_r I(race_i = r) + \sum_a \beta_a I\left(age_{i,t} = a\right) + \sum_e \beta_e I\left(edu_{i,t} = e\right) + \sum_g \beta_e I(gender_i = g) +\right] \times U_t^{tot} + LFPR_{raeg,s,t} + I(state_i = s) + \varepsilon_{i,t}$ where $U_{i,t}^{raeg,s}$ is the an indicator variable if individual *i* of race *r*, age group *a*, gender *g*, with highest education level *e* from state *s* is unemployed at time *t*, and U_t^{tot} is the aggregate unemployment rate at time *t*.

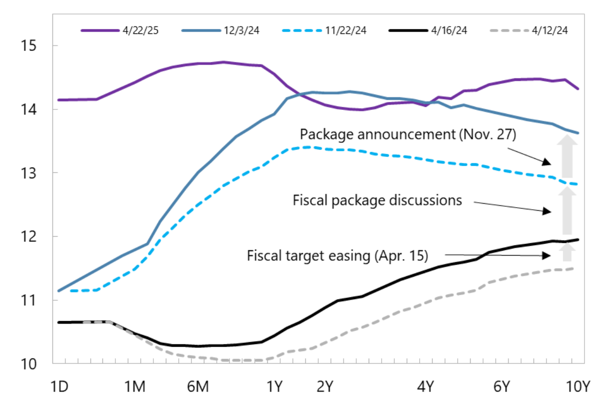
2/ See, for example, Aaronson, Stephanie R., Mary C. Daly, William L. Wascher, and David W. Wilcox. "Okun revisited: Who benefits most from a strong economy?" Brookings Papers on Economic Activity 2019, no. 1 (2019): 333-404.

6. Following fiscal stimulus during 2022-2023, the fiscal policy stance was broadly neutral in 2024 and is estimated to be tightening in 2025. In 2024, the federal primary deficit narrowed to 0.4 percent of GDP from 2.4 in 2023, meeting the authorities' fiscal target within the target tolerance interval after allowed deductions (see Box 2). Revenue increased by 1.3 percent of GDP, of which about half reflected the strength in economic activity and half reflected tax measures, including higher fuel taxation and a levy on exclusive funds and offshore assets. On the spending side, the settlement of 0.8 percent of GDP in *precatórios*—court-ordered government payments—in December 2023 widened the primary deficit by 0.8 percent of GDP in 2023 with a corresponding narrowing in 2024. For the purposes of assessing the fiscal impulse, staff allocates the disbursement of *precatórios* to early 2024 when the payments reached households. After adjusting for *precatórios* and for the economic cycle, staff estimates that the general government structural primary balance was approximately unchanged in 2024, implying a broadly neutral overall fiscal stance. In terms of the macroeconomic impact, staff assesses that fiscal support during 2022-24 added (through its contemporaneous and lagged effects) on average 0.6 percentage point to annual growth.[1] As of 2025H1, fiscal policy is tightening, supported by spending restraint, with the federal government targeting a zero primary deficit.

Primary Balance and Fiscal Impulse 1/



Treasury Yield Curve 2/
(Percent)



Sources: WEO, Haver, Bloomberg, Fund staff calculations.
1/ General government. For assessing fiscal impulses, staff allocates the end-2023 disbursement of *precatórios* to 2024 when payments reached households.
2/ Derived from DI futures.

7. Uncertainty regarding the future path of fiscal policy intensified during 2024. Implementation of the new fiscal framework approved in 2023 proved to be challenging, in part due to substantial budget rigidities and challenges in securing support for further revenue mobilization, and the authorities adjusted down the primary balance targets in April 2024. The announcement raised concerns regarding the fiscal framework's credibility and the yield curve for government bonds rose on the long end, suggesting higher risk premiums. In subsequent months, while a package of spending measures to shore up confidence was under discussion, fiscal policy uncertainties intensified, with a further rise in bond yields. When unveiling the package in November

[1] The assessment is based on staff estimates of the fiscal stance during 2022-2024 as well as fiscal multiplier estimates for the region taken from [Carriere-Swallow, David, and Leigh (2021)]().

2024, the authorities also committed to increase the personal income tax (PIT) exemption, to be offset by taxing higher-income brackets.[2] With investors doubting the announced measures would curb government debt, there was a further rise in the yield curve on the long end. More recently, reflecting the BCB's policy rate increases, the yield curve has risen on the short end with comparatively little change at the long end, suggesting a persistence of underlying fiscal risk perceptions. At the same time, other indicators suggest some moderation in domestic risk perceptions since December (see Box 3).

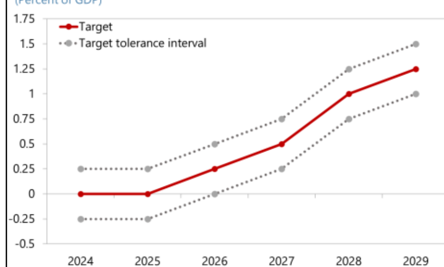
Box 2. Brazil's Fiscal Framework

Spending Corridor Established in 2023. The constitutional amendment approved in August 2023 replaced the cap of zero growth in federal real spending that had been in force since 2016 with a formula for federal real spending growth with a floor of 0.6 percent and a ceiling of 2.5 percent, contingent on revenue collection and the distance to a primary balance target. The corridor for spending growth works as follows:

- If the primary balance in year t is within the target tolerance interval, planned real federal spending growth in year $t+2 = 0.7 \times$ real revenue growth in $t+1$ (mid-year).
- If the primary balance in year t is below the target tolerance interval, planned real federal spending growth in year $t+2 = 0.5 \times$ real revenue growth in $t+1$ (mid-year).

Primary Balance Target. The fiscal target for year $t+1$ is set in the draft Budget Guideline Law (PLDO) in April of year t. The PLDO also sets *indicative* (non-binding) targets for outer years. The current-year target can in principle be revised at other times of the year with a simple parliamentary majority, although this provision has not been activated. In April 2024, the PLDO set a zero-deficit target for 2025 (revised down by 0.5 percentage point from the indicative target that had been set in April 2023 in the PLDO). In April 2025, the PLDO reaffirmed the targets for 2025 and 2026, as well as the indicative targets for subsequent years. Within-year correction mechanisms continue to apply, including bans on new hiring, increases in public wages, new mandatory spending, social assistance policies, or tax benefits if the primary balance target is assessed to be at risk within the year.

Federal Primary Balance Target
(Percent of GDP)



Source: Draft Budget Guideline Law for 2026.

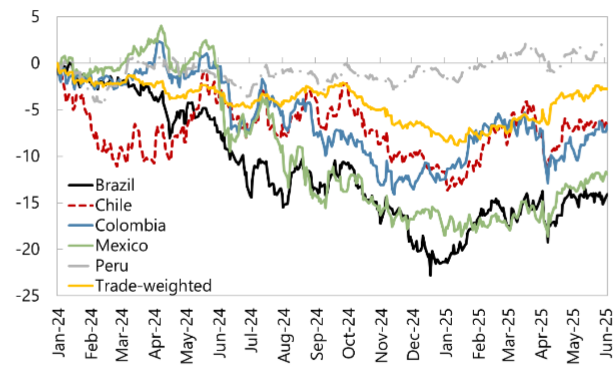
Target Assessment. To assess whether a fiscal target is met, the primary balance outcome is compared with the target tolerance interval of ±0.25 percent of GDP around the target. In addition, certain authorized expenditures are deducted for the assessment. In late 2023, part of the payments of *precatórios* were authorized to be taken out of the assessment for 2024-2026. For the purposes of assessing the 2024 target, the extraordinary spending in support of the calamity caused by the flood in *Rio Grande do Sul*, amounting to 0.3 percent of GDP, was excluded, reducing the relevant primary deficit for assessing compliance with the fiscal framework to 0.1 percent of GDP. As this outcome was within the ±0.25 percent GDP target tolerance interval, the 2024 fiscal target was considered met.

[2] The fiscal package is expected to reduce spending by 0.2 percent of GDP in 2025 and by more in later years. The proposed measures include, notably, a 2.5 percent cap on real growth of the minimum wage; gradually restricting wage bonus eligibility from those earning two minimum wages to those earning one and a half minimum wages; and enhanced scrutiny of eligibility for social programs. The majority of the proposed measures were approved by Congress in December 2024. The authorities submitted a PIT reform proposal featuring an increase in the PIT exemption to be offset by taxing higher-income brackets to Congress in March 2025.

8. Implementation of the landmark 2023 VAT reform is advancing, and the government submitted a PIT reform proposal to Congress. The enaction of Complementary Law No. 214/2025 in January 2025, which establishes and regulates the dual VAT system, marks a significant step in the transition to the new regime. Work toward passage of the remaining bills specifying the governance structure for joint revenue administration, excise tax regulation, and administrative process is ongoing. The proposed PIT reform, which aims to be revenue neutral, raises the personal income exemption threshold to R$5,000 monthly (from R$3,036), while introducing a minimum income tax in five brackets up to 10 percent for individuals earning over R$50,000 monthly and a new withholding tax on dividend payments. Separately, Congress approved a 15 percent minimum tax on large multinationals, aligning Brazil with OECD Global Anti-Base Erosion (GloBE) rules, which is expected to modestly raise revenues from 2026.

9. After appreciating in 2023, the *real* depreciated significantly in 2024, and the authorities intervened in the FX spot market to support the *real* for the first time since 2022. Staff analysis indicates that about one-third of the *real*'s depreciation of about 20 percent against the US dollar in 2024 came from perceptions of increasing domestic risks, with global factors accounting for much of the remainder (Box 3). Financial outflows around year-end were larger than usual, partly reflecting seasonal dividend remittances and large one-off balance sheet-related outflows. These unexpected outflows put the FX market under temporary stress, with a spike in the implied onshore dollar interest rate (*cupom cambial*) and concerns among market participants about spot market liquidity shortages. In this context, the BCB intervened in the spot market, selling US$21.6 billion (about 6 percent of foreign reserves) in December 2024 to smooth FX market functioning, reduce excessive volatility, and prevent contagion to other asset classes, including fixed income. Earlier in the year, smaller amounts of FX market intervention occurred through different instruments to address specific spikes in market demand (Annex II). As of late June 2025, the BCB has not intervened in the spot market. Overall, foreign exchange reserves declined by about US$25 billion in 2024 to US$330 billion at end-December, remaining within adequacy ranges (126 percent of the IMF ARA metric).

US Dollar Exchange Rate
(January 2024 = 0; + = appreciation)



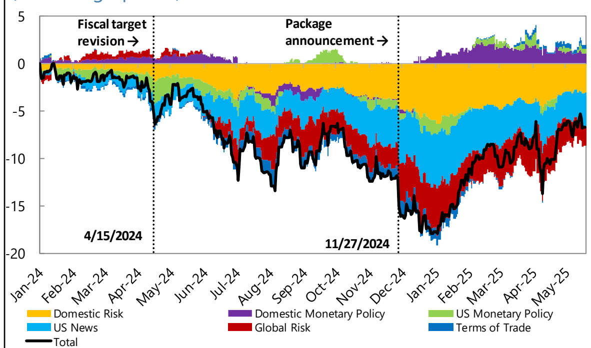
Sources: Bloomberg, Fund staff calculations.

Box 3. Drivers of Exchange Rate Movements

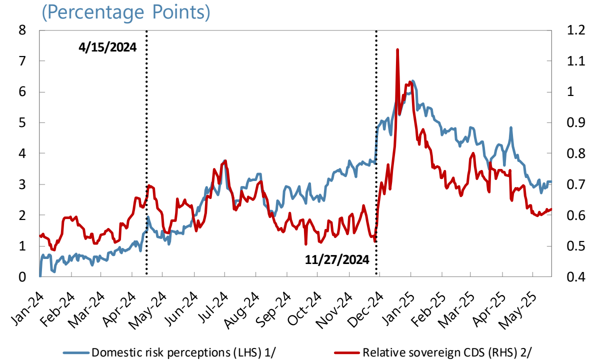
The exchange rate can respond to domestic and foreign monetary, financial, and real factors. To distinguish between these drivers, a daily Structural Vector Autoregression (SVAR) identified using sign restrictions is estimated and applied to decompose movements in the exchange rate of the *real* vis-à-vis the US dollar (BRL/USD) since 2024. The SVAR sign restrictions reflect standard assumptions about the co-movement of each of the six currency drivers considered with six variables observed at the daily frequency, as indicated in the table (a positive sign in the BRL/USD column indicates appreciation of the *real*; an empty cell indicates that no sign restriction is assumed).[1] The sample spans 2008-2025, although the results are robust to limiting the sample to more recent years.

Box 3. Drivers of Exchange Rate Movements (concluded)

Currency Depreciation Decomposition
(Percentage points)



Estimated Domestic Risk Contribution vs. CDS
(Percentage Points)



Sources: Bloomberg, BCB and IMF.
1/ SVAR-based estimate of contribution to currency decomposition of domestic risk; a rise in domestic risk is associated with depreciation.
2/ Five-year sovereign CDS for Brazil minus median for LA5 economies excluding Brazil.

The analysis suggests that domestic risk perceptions accounted for roughly one-third of the currency depreciation in 2024, followed by US macroeconomic news and global risk perceptions. Additional analysis indicates that the domestic risk factor relates strongly to fiscal policy uncertainties. This factor's contribution increased following the easing of fiscal targets in April 2024 and the announcement of the fiscal package in November 2024, and correlates closely with a measure of sovereign risk—the sovereign Credit Default Spread (CDS) for Brazil relative to the median for other LA5 economies. Factors explaining the appreciation of the exchange rate starting in early December include domestic monetary policy tightening and a moderation in domestic risk perceptions.

Sign Restrictions Used to Decompose Brazilian Exchange Rate Movements

	10-year BRA Bond Yield	BRL/USD (+ appreciation)	S&P 500	US 10-year Treasury Yield	Ibovespa Index	Terms of Trade
Domestic Risk	+	-			-	
Domestic Monetary Policy	+	+			-	
US Monetary Policy		-	-	+		
US News		-	+	+		
Global Risk	+	-	-	-	-	
Terms of Trade						+

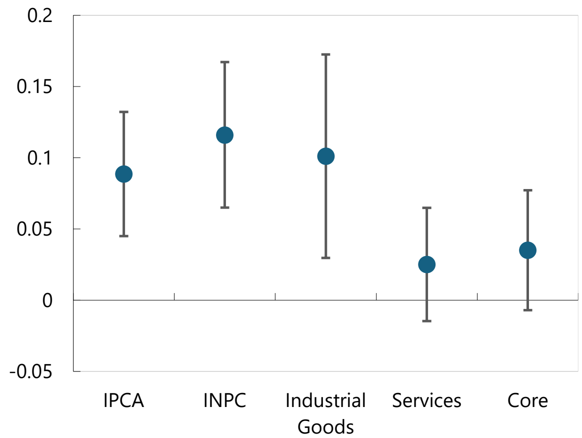
1/ The analysis follows a similar approach to Brandt, Saint Guilhem, Schröder and Robays, 2021, "What drives euro area financial market developments? The role of US spillovers and global risk", *ECB Working Paper Series*, No. 2560, which was recently applied by IMF staff to Uruguay (see IMF Country Report No. 2024/215).

10. The currency's depreciation is passing through to prices, particularly those faced by lower-income households. Staff analysis (Annex III) indicates that pass-through from a 10 percent depreciation of the nominal effective exchange rate reaches about 0.9 percent after 12 months for the headline consumer price index (IPCA) but about 1.2 percent for prices faced by lower-income households (INPC).[3] The stronger impact for lower-income households reflects the larger weight of

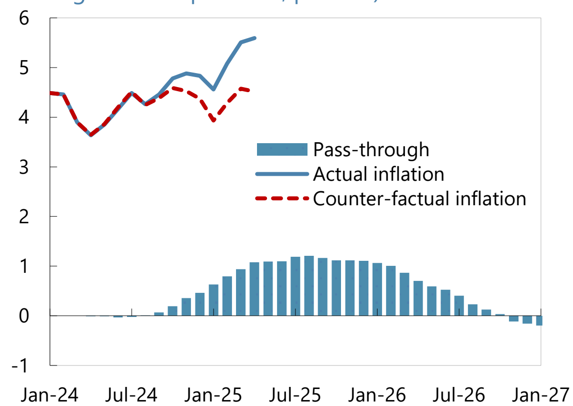
[3] The INPC index measures the price level of the consumption basket of households with income of 1-5 minimum wages while the IPCA index measures the price level for households with income of 1-40 minimum wages.

energy and food, for which pass-through is especially high due to a larger imported content, in their consumption basket. Overall, currency movements since April 2024 are estimated to have contributed 0.5 percentage point to twelve-month headline inflation at end-2024 and are projected to contribute 1.1 percentage points to headline inflation by end-2025.

Estimated Response of Price Level to 1 Percent NEER Depreciation
(Percent; response after twelve months)



Contribution to Inflation of NEER Changes, 2024-25
(Twelve-month inflation rate response to NEER changes since April 2024; percent)



Sources: Bloomberg, Haver, Fund staff calculations.
Note: Exchange rate pass-through based on estimated local projections relation between change in (log) nominal effective exchange rate and change in (log) price indexes, controlling change in (log) Brent oil price. Whiskers indicate 90 percent confidence interval. Right chart reports estimated impact of all movements in Brazil's NEER from April 2024 to April 2025 (bars) along with actual inflation rate and counter-factual rate excluding estimated contribution of exchange rate pass-through.

11. Progress on disinflation stalled in 2024 amid relative price shocks, a positive output gap, and de-anchored inflation expectations. Headline inflation was on a declining path, falling from its peak of 12.1 percent (y/y) in April 2022 to a low of 3.2 in June 2023. It then rebounded, reaching 4.8 percent by December 2024 and was 5.3 percent in May 2025—above the inflation target tolerance interval (3.0 percent ±1.5 percentage points). Staff analysis suggests that the overshoot of the inflation target currently reflects—to approximately equal degrees—relative price shocks, including the drought-induced rise in food prices and currency depreciation; the pass-through of these shocks to core inflation; the positive output gap (estimated by IMF staff to have reached 1.1 percent in 2024); and above-target medium-term inflation expectations. Core inflation (the BCB's average of five measures of underlying price pressures) stood at 5.2 percent in May, with services inflation, reflecting the tight labor market, at 5.8 percent. In real terms, average wage growth accelerated to 4.3 percent (y/y) in 2024 (from 3.1 percent in 2023) and was 4.0 percent in March 2025. Medium-term expectations rose above the 3 percent target in February 2023 in the context of discussions about possibly raising the inflation target and partially retreated following the Monetary Policy Council's decision in June 2023 to adopt a continuous inflation targeting system.[4] Inflation expectations increased again in April 2024 after the revision of fiscal targets and in

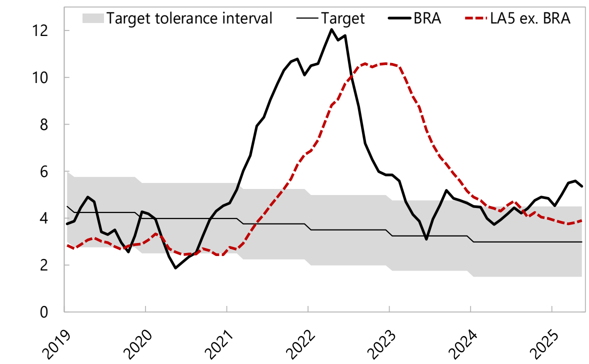
[4] Subsequently the new inflation-targeting system was established through a Presidential Decree, No.12,079, in June 2024.

November 2024 following the aforementioned fiscal package announcement. As of end-May 2025, the four-year-ahead inflation forecast from the *Focus* survey of analysts coordinated by the BCB was 3.8 percent.

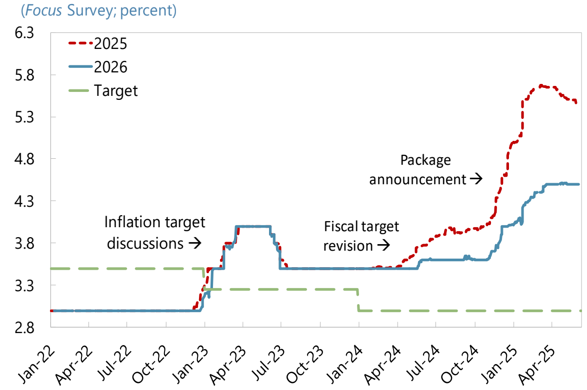
12. With above-target inflation expectations and a widening positive output gap, the BCB pivoted to a new tightening cycle in September 2024. As economic activity surprised on the upside, and with inflation and inflation expectations above target, the BCB gradually shifted its stance in 2024 from an easing cycle to keeping rates on hold and then to a new tightening cycle in September. After 450 basis points in policy rate hikes to 15 percent in June 2025, real interest rates are in highly restrictive territory close to 10 percent (Figure 2) compared to staff estimates of neutral short-term real rates of about 5 percent.

13. Brazil's financial sector has weathered market fluctuations well. Banks remained highly liquid, with liquidity coverage ratios at 188.9 percent in end-2024, well above the regulatory minimum. Banks also had adequate capital, with a Common Equity Tier 1 capital ratio of 14.3 percent. Bank credit growth accelerated in 2024 to 11.5 percent year-over-year and non-performing loans declined further amid robust economic conditions. The BCB's estimated credit gap remains positive and driven mainly by the strong growth of the domestic bond market. The share of earmarked credit, which includes government-sponsored credit with regulated interest rates, increased modestly from 40.0 percent in 2023 to 42.2 percent in January 2025 but remains well below its peak of 50 percent in 2016-17. The private sector has been resilient to the exchange rate movements due to Brazil's low reliance on external debt, mitigating possible spillovers to the financial sector.

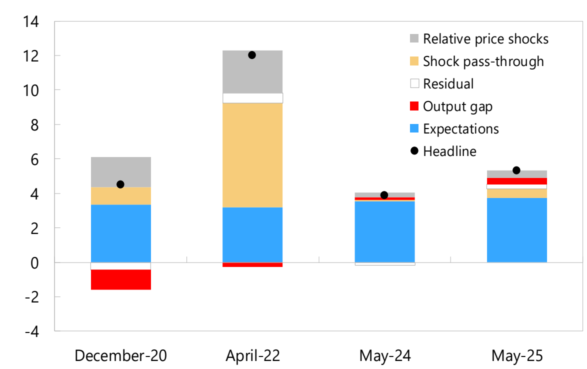
Headline Inflation
(Percent y/y)



Inflation Expectations
(*Focus* Survey; percent)

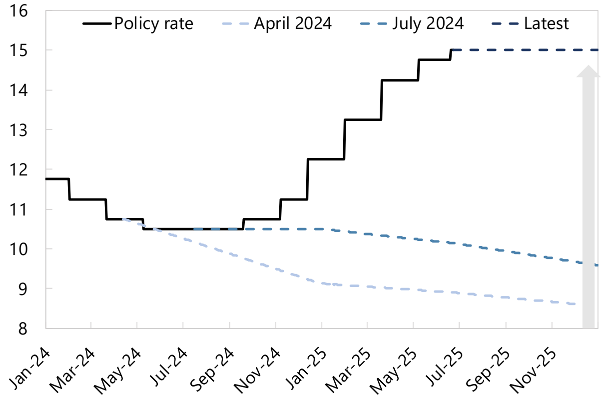


Inflation Drivers 1/
(Percent y/y)

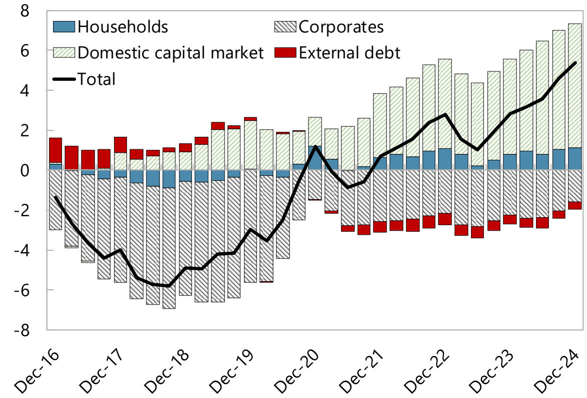


Sources: National Statistics Offices, BCB, Haver, Fund staff calculations.
1/ Relative price shocks" = deviations of headline inflation from core; "Pass-through" = pass-through from headline shocks to core; "Expectations" = four-year-ahead Focus survey expectations. Methodology: Dao and others (2024).

Focus Survey Expectations of Policy Rate
(Percent)



Broad Credit-to-GDP Gap
(Percentage points)



Sources: BCB, Financial Stability Report, IBGE, Haver, Fund staff calculations.

14. The 2024 external position is assessed to be in line with medium-term fundamentals and desirable policy settings. With the strong economic momentum, the external current account deficit reached 2.8 percent of GDP in 2024 from 1.3 percent of GDP in 2023, on the back of rising imports due to stronger economic activity. Exports in dollar terms remained high, thanks to solid oil and agricultural exports. Preliminary analysis suggests that the external position in 2024 was broadly in line with the level implied by medium-term fundamentals and desirable policies (Annex IV). Brazil continued to attract robust foreign direct investment (FDI) in 2024 and net FDI inflows increased by 0.5 percent of GDP to 2.2 percent of GDP.

OUTLOOK AND RISKS

15. Growth is projected to moderate in the near term as inflation converges to target, and then strengthen to 2.5 percent over the medium term.

- **Growth.** Staff projects a moderation in growth from 3.4 percent in 2024 to 2.3 percent in 2025, amid tight monetary policy to ease inflationary pressures, tight financial conditions, a scaling back of fiscal support, and heightened global policy uncertainty. Regarding ongoing global trade tensions, Brazil could modestly benefit from trade-diversion effects—as a substitute supplier of agricultural and other commodities, predominantly to China—but indirect effects via lower global demand and commodity prices, elevated policy uncertainty, and increased investor risk aversion are expected to be stronger, resulting in lower growth. Over the medium term, growth is forecasted to recover to 2.5 percent, supported by the normalization of monetary policy and supportive structural factors, notably the implementation of the efficiency-enhancing VAT reform and the acceleration in hydrocarbon production. The unemployment rate is expected to rise to 7.4 percent as the output gap closes in the medium term.

- **Inflation and Monetary Policy Stance.** Staff expects inflation to remain above target in the near term, reaching 5.2 percent by end-2025, before gradually converging to the 3 percent target by end-2027, about 1½ years later than expected at the time of the 2024 Article IV staff report. The BCB policy rate is expected to peak at 15 percent in 2025 before approaching its estimated neutral level in early 2028, with short-term real interest rates around 5.0 percent.

- **Fiscal Balance and Government Debt.** Staff expects a modest widening in the federal primary deficit in 2025 to 0.6 percent of GDP, from 0.4 percent of GDP in 2024, followed by a gradual path to a primary surplus of 1.4 percent of GDP in 2030 and 1.7 percent of GDP over the extended policy horizon, contingent on the implementation of measures. General government gross debt is projected to stabilize in 2030 at around 99 percent of GDP.[5]

- **Current Account.** The current account deficit is expected to narrow to 1.9 percent of GDP in the medium term, reflecting a strong trade surplus driven by agricultural and hydrocarbon exports.

16. Risks to the growth outlook are tilted to the downside amid heightened global policy uncertainty (Annex V). Risks to the inflation outlook are broadly balanced.

- **Upside Risks.** In the near term, higher growth could stem from stronger-than-expected household consumption in the context of a still tight labor market. Over the medium term, upside risks stem from for faster implementation of productivity-enhancing reforms and the Ecological Transformation Plan (see below).

- **Downside Risks.** Downside risks to growth stem, externally, from a slowdown in major economies amid heightened global trade tensions and policy uncertainty, with lower commodity prices and tighter global financial conditions. In a global downside scenario featuring such shocks, calibrated based on Box 1.1 of the April 2025 *World Economic Outlook* (Scenario A), annual real GDP growth in Brazil could be lower by 0.9 percentage point in 2025 and 0.5 percentage point in 2026, compared to the baseline forecast, before gradually recovering, with inflation lower by about 0.2 percentage point during 2025-2026. This outcome reflects modest positive trade diversion effects more than offset by cooling effects from higher global uncertainty and tighter financial conditions.[6] Domestically, a lower-than-envisaged fiscal effort, while supporting growth in the near term, could increase policy uncertainty and pressures on public debt and inflation, resulting in higher borrowing costs and weaker investment that could subsequently weaken growth. Monetary policy may have to remain tight for longer if upside risks to inflation materialize and inflation expectations drift further upward, resulting in lower economic activity; the risk of de-anchoring from additional shocks is likely amplified by inflation having been running above target. Parts of Brazil are also exposed to extreme weather events that could dent growth, including floods, droughts, and wildfires, as in the flood calamity in *Rio*

[5] The IMF staff definition of public sector debt corresponds to general government gross debt. Unlike the authorities' definition, the IMF staff definition includes treasury bills on the central bank's balance sheet not used under repurchase agreements.

[6] The scenario features a ratcheting up of tariffs; increased global uncertainty; tighter financial conditions; and a combination of renewal of the US Tax Cuts and Jobs Act, lower productivity growth in Europe, and weaker domestic demand in China (see Box 1.1 of the April 2025 *World Economic Outlook* for details).

Grande do Sul in 2024. Agriculture and power generation are sectors at risk, with potential repercussions for the financial sector (see IMF, 2023, Country Report No. 23/288).

- **Buffers and Resilience Factors.** A sound financial system, adequate FX reserves, low reliance on FX debt, large government cash buffers, and a flexible exchange rate continue to support Brazil's resilience.

Authorities' Views

17. The authorities broadly shared staff's views on the outlook. They expected growth to moderate in the near term and emphasized the role of structural reforms undertaken in recent years and the landmark VAT reform in boosting potential growth. They broadly agreed about the main drivers in the balance of risks to growth as considered in the staff's assessment, particularly regarding the role of heightened global policy uncertainty. They saw global trade tensions as implying mixed sectoral impacts, with a modest positive overall trade effect on Brazil that would likely be more than offset by the negative effects of global policy uncertainty. The BCB broadly concurred with staff's assessment of exchange rate and inflation drivers but considered that inflationary pressures in 2025 were slightly lower than in staff's projection. The authorities agreed with staff that the 2024 external position was broadly in line with the level implied by fundamentals and desirable policies.

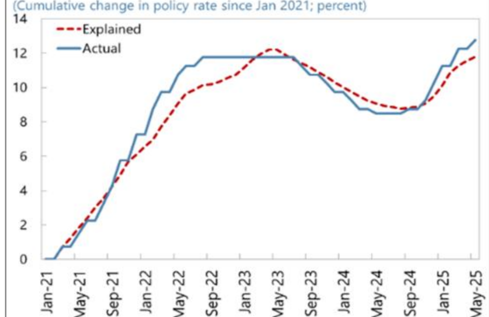
POLICY DISCUSSIONS

A. Completing Disinflation

18. The BCB's pivot to a tightening cycle in September was appropriate and consistent with bringing inflation and inflation expectations back to the 3 percent target. Above-target near- and medium-term inflation expectations, as well as a widening positive output gap supported the case for the BCB's rate hikes. Staff analysis suggests that the increase in policy rates is closely explained by the rise in inflation expectations in line with standard inflation-targeting principles (see Annex VI). The BCB's policy stance and clear commitment to the 3 percent target bode well for the decline in inflation expectations, conditional on continued credibility of both fiscal and monetary policy frameworks. In the context of heightened global policy uncertainty and inflation expectations above target-consistent levels, maintaining flexibility on the pace and length of the hiking cycle is prudent. Continued vigilance regarding the possibility that inflation expectations rise further

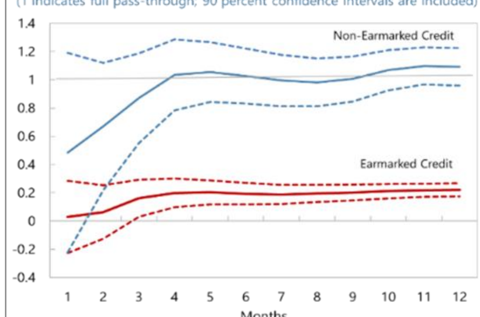
Change in Policy Rate 1/

(Cumulative change in policy rate since Jan 2021; percent)



Monetary Policy Pass-through to Average Lending Rates

(1 indicates full pass-through; 90 percent confidence intervals are included)

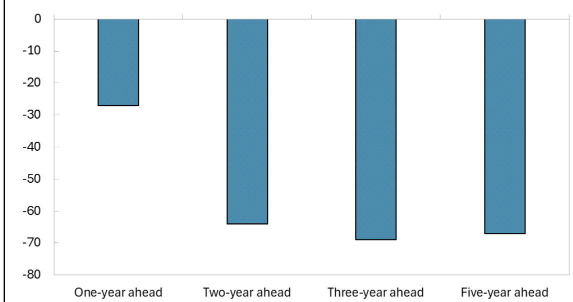


Sources: BCB, IBGE, Haver, Fund staff calculations.

1/ The explained path indicates a dynamic simulation of the policy rate based on an estimated reaction function where the policy rate responds to eighteen-month-ahead (survey) inflation expectations, the output gap estimate, the lagged policy rate, and a dummy for the peak of the COVID-19 crisis. See Annex VI for details above target, as well as the possibility of underlying price pressures easing from the cooling effects of a weaker global outlook is warranted. Dependent on underlying inflation data and inflation expectations anchoring around the 3 percent target, a path for the policy rate that peaks in 2025 and returns to its neutral level in 2028 would be appropriate.

19. Monetary transmission has been effective in increasing lending rates and lowering inflation expectations. Staff's analysis suggests that policy tightening raises market-based (non-earmarked) lending rates one-for-one within four months, implying full pass-through (Box 4). Overall pass-through across all credit types is strong, at an estimated average of 70 percent. In addition, staff analysis suggests that policy rate increases are effective in lowering inflation expectations: a 100 basis point interest rate increase reduces one-year-ahead inflation expectations by 20-30 basis points, other things equal, with larger declines in longer-horizon expectations.[7]

Monetary Policy Tightening Effect on Inflation Expectations
(Estimated effect of 100 basis point increase in policy rate, basis points)



Source: Goncalves, Rodrigues, and Genta (2025)

Box 4. Monetary Policy Transmission to Lending Rates[1]

Staff analysis finds that monetary policy transmission in Brazil is effective through the interest rate channel. Using both aggregate and bank-level lending rates, staff estimates the pass-through of changes in policy rates to lending rates over twelve months using local projections. The analysis identifies monetary policy shocks using forecast errors from the daily *Focus* survey and uses them as instrumental variables for changes in the policy rate. The estimates indicate that monetary policy changes are fully passed on to market lending rates while the pass-through to government directed lending (earmarked credit) is weaker, at 20 percent. Based on bank-level lending rate data, there is significant variation in estimated pass-through across credit types. Unsecured consumer loan rates are more responsive to policy changes than secured loans backed by payroll or collaterals. Corporate lending rates show stronger and faster pass-through compared to consumer loans, which may reflect corporate borrowers' sophistication and competition from the bond market.

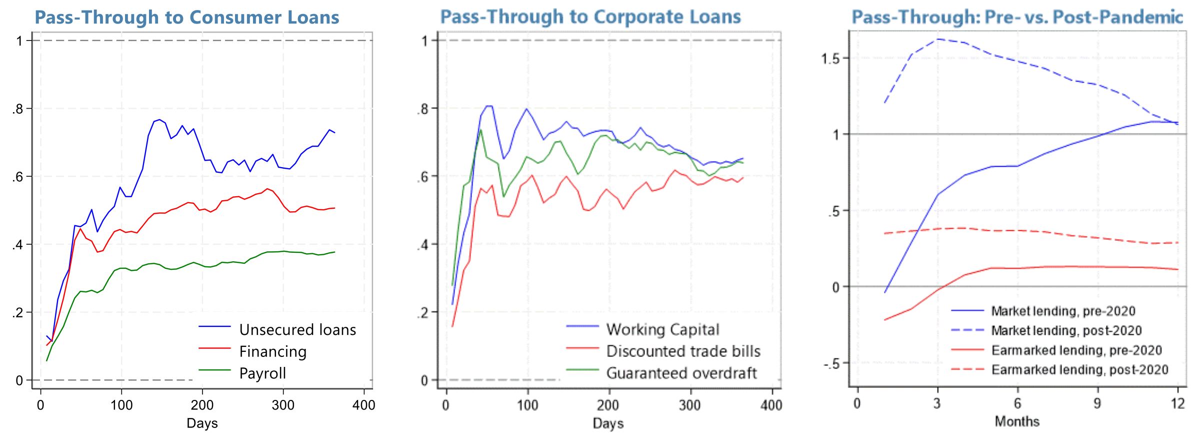
Pass-through appears to have strengthened since the COVID-19 pandemic. This result mainly reflects stronger pass-through to corporate loans for both market credit and earmarked credit. The BNDES reform and the growing domestic bond market as a financing alternative may have enhanced banks' responsiveness to monetary policy changes.

These findings suggest that weak transmission is not an explanation for the robust credit growth observed in Brazil since 2022 despite elevated policy rates. Other factors, such as the rapid expansion of fintech lenders and structural reforms to reduce credit costs, may have contributed to the strength of consumer credit growth in recent years (see Box 6)

[7] For details, see Goncalves, Carlos, Mauro Rodrigues, Fernando Genta, 2025, "Monetary Policy and Inflation Expectations: High-Frequency Evidence from Brazil," IMF Working Paper, WP/25/28. Earlier IMF staff analysis for Brazil (IMF Country Report No. 24/209) finds that monetary policy tightening significantly reduces inflation and the output gap based on a Bayesian VAR model.

Box 4. Monetary Policy Transmission to Lending Rates[1] (concluded)

Estimated Pass-Through to Lending Rates of New Loans
(Percentage points)



Source: Fund staff calculations.
1/ See Daniel Leigh and Rui Xu, "Monetary Policy Transmission to Lending Rates: Evidence from Brazil," forthcoming IMF Working Paper.

20. Rebalancing the macroeconomic policy mix would facilitate a decline in inflation. The primary responsibility for ensuring price stability lies with the BCB. However, additional legislated packages of government spending and revenue measures that further demonstrate a clear path to improving the fiscal position would, by cooling aggregate demand and strengthening fiscal credibility, reduce pressures on the currency and prices and—conditional on inflation expectations heading back to target—facilitate a lower path of policy interest rates.[8] Clear contingency plans, building on those envisaged in the fiscal framework, for how the government would respond to major changes in economic conditions would further bolster credibility. The resulting lower path of sovereign yields would, in turn, help to improve debt dynamics, given the high share of floating-rate government liabilities (nearly 50 percent).

21. Brazil's flexible exchange rate continues to act as a valuable shock absorber. There has been no change in the BCB's long-standing flexible exchange rate policy and its adherence to the inflation-targeting framework. The flexible exchange rate regime and adequate FX reserves remain valuable shock buffers and continue to support Brazil's resilience. In general, FX intervention could be used to address episodes of higher risk premia when FX liquidity becomes shallow, as was the case in December 2024, without substituting for necessary adjustment of macroeconomic policies.

22. Staff advises the authorities to continue reducing the financial transaction tax (IOF-FX) and eliminate the associated multiple currency practice (MCP). The longstanding tax on certain

[8] Negative direct effects of fiscal consolidation on economic growth could be partially offset by positive effects associated with reduced perceptions of fiscal risks: Carriere-Swallow, David, and Leigh (2021) find that, for economies in the region, when initial perceptions of sovereign risk are above average, fiscal consolidation has less contractionary effects on growth in the near term.

financial transactions (*Imposto sobre Operações Financeiras,* IOF-FX)[9] applicable to exchange transactions gives rise to an MCP with respect to current and capital international transactions, as the effective exchange rate of exchange transactions subject to the IOF-FX has exceeded the permissible margin under the Fund's new MCP policy since the effectiveness of this policy. At the same time, this tax is also an exchange restriction with respect to payments and transfers for current international transactions as well as a CFM with respect to capital transactions. The IOF-FX tax increases transaction costs for FX transactions. The authorities are not requesting approval. The tax is being phased out and is expected to be eliminated in due course in line with the existing plan to reduce the rate to zero, consistent with staff advice.

Authorities' Views

23. The authorities agreed that monetary policy is consistent with reducing inflation to target. The BCB remains firmly committed to the inflation targeting framework and agreed with staff that maintaining flexibility on the pace and length of the hiking cycle is appropriate. The BCB emphasized that the policy rate would need to stay high-for-longer given above-target inflation and inflation expectations. They concurred with staff that monetary policy transmission is effective and reiterated their commitment to exchange rate flexibility.

B. Strengthening the Fiscal Position

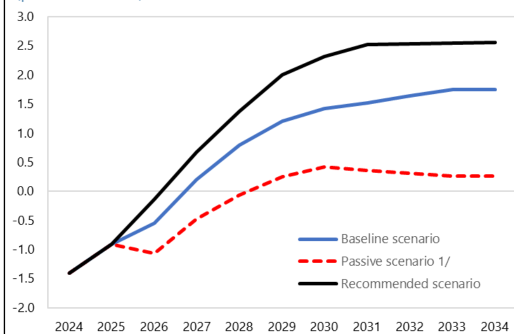
24. The authorities' efforts to continue improving the fiscal position, while protecting targeted social support and investment spending, are welcome and further steps are warranted. The authorities adopted measures to achieve the 2025 zero primary deficit target, including spending restraint and revenue mobilization, following the regular bimonthly evaluation of primary revenues and expenditures released in May. The 2026 draft Budget Guidelines Law (PLDO) submitted to Congress in April reaffirmed the federal primary fiscal surplus target of 0.25 percent of GDP for 2026 and the indicative target path to a surplus of 1.0 percent of GDP by 2028. It also set a new indicative target of 1.25 percent of GDP for 2029, providing a welcome longer-term perspective. Based on more favorable macroeconomic assumptions than staff, notably on interest rates, the authorities estimate that achieving the fiscal targets would result in public debt (authorities' definition) peaking as a ratio to GDP in 2028, followed by a gradual decline in subsequent years. The authorities intend to rely on a mix of additional revenues and spending measures. They estimate that the spending package approved in December 2024 will compress spending by 0.2 percent of

[9] The IOF is applied on exchange transactions carried out by institutions participating in cross border payment arrangements to fulfill their obligations arising from the customers' transactions related to the purchases of goods/ services abroad and cash withdrawals abroad using payment instruments as well as for the acquisition of traveler's checks and loading prepaid cards to cover travel expenses abroad. The applicable rate was reduced from 6.38 percent in 2022 to 5.38 percent in January 2023, 4.38 percent in January 2024, and 3.38 percent in January 2025. Application of the above mentioned and other tax rates under the IOF-FX on transactions related to different types of capital flows, for example, fixed income securities, stocks, margin deposits, derivative contracts, and FDI is considered a capital flow management measure (CFM). In March 2022, Brazil's Executive Branch published Presidential Decree 10.997/2022 that will gradually reduce the IOF-FX rates to zero by 2029 on all exchange transactions which are currently subject to a non-zero rate. The authorities had considered changes to IOF taxes in May and June 2025, which were not approved, with the applicable rate remaining on its declining path.

GDP in 2025, with annual savings rising to 0.4 percent of GDP by 2030. The adopted structural measures to tackle budget rigidities, including the new 2.5 percent cap on the real growth rate of the minimum wage to which minimum pensions are indexed to, are a step in the right direction and account for the bulk of the expected savings over the medium term. Near-term savings primarily arise from enhanced scrutiny of eligibility for social programs and limits on parliamentary amendments.

25. Staff's baseline scenario is consistent with a more gradual fiscal improvement than the authorities' path. For 2025, staff projects a federal primary deficit of 0.6 percent of GDP, within the fiscal target tolerance interval after allowed deductions, reflecting continued pressure on social safety net spending due to rising numbers of beneficiaries and the mandatory inclusion of financial incentives to low-income students and gas voucher programs in the budget. The measures adopted in December 2024 and May 2025 are expected to partly offset these pressures, contributing to an overall estimated fiscal effort (as measured by the change in the general government structural primary balance) of 0.5 percent of GDP in 2025. For 2026, staff projects a federal primary deficit of 0.4 percent of GDP, predicated on additional (currently unallocated) measures of 0.5 percent of GDP. For subsequent years, staff's baseline scenario foresees a gradual fiscal effort resulting in a primary surplus of 1.7 percent of GDP in 2034. The projection assumes a moderation in spending growth guided by the fiscal rule, and the implementation of additional (currently unallocated) measures amounting to 1.5 percent of GDP drawing on the authorities' intention to broaden the tax base, including by tackling tax expenditures, and streamline expenditures, including by improving spending efficiency. With this baseline path for the primary fiscal balance, general government gross debt is projected to stabilize at around 99 percent of GDP in 2030 (Annex VII).

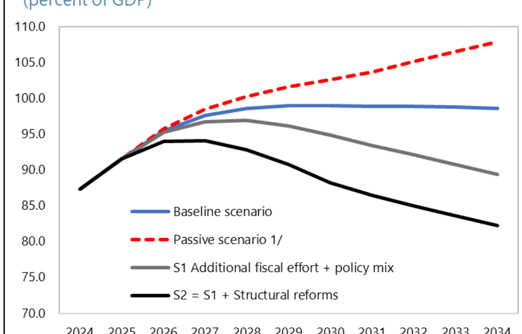
General Government Structural Primary Balance
(percent of GDP)



Source: Fund staff estimates.
1/ Scenario with no additional (unallocated) measures

26. To put public debt on a firmly downward path, facilitate a lower path of interest rates, and open space for priority investments, staff recommends a sustained and more ambitious fiscal effort. Staff's debt sustainability assessment finds risks of debt distress to be moderate under the baseline scenario, but the debt trajectory remains highly sensitive to shocks to borrowing costs and real GDP growth and the materialization of contingent liabilities (Annex VII). Staff's assessment also suggests that Brazil has some fiscal space to respond to temporary shocks. The predominantly domestic investor base, low external debt, large cash buffers of the government (14 percent of GDP) and the BCB's substantial holdings of government securities (21 percent of GDP), which are automatically rolled over by law, mitigate

General Government Gross Debt
(percent of GDP)



Source: Fund staff estimates.
1/ Scenario with no additional (unallocated) measures.

risks and provide room for fiscal consolidation to proceed at a steady pace over the medium term. At the same time, additional fiscal measures are key to enhance resilience to shocks. Staff recommends that the authorities stand ready to implement further expenditure restraint in 2025 if needed to achieve the targeted primary balance, while continuing to protect targeted social support and investment spending. Guided by a buffer analysis around optimal debt anchors, staff recommends a path for the primary fiscal balance that starts with achieving the 0.25 percent of GDP surplus target in 2026, implying structural fiscal effort of 0.8 percent of GDP, followed by improvements averaging 0.5 percentage point of GDP per year, resulting in a federal primary fiscal surplus of 2.5 percent of GDP by 2031. Such a fiscal path, together with growth-enhancing structural reforms (see below) would put general government gross debt on a firmly downward trend from 2028 on, improve sovereign financing conditions, further support a decline in inflation expectations and policy interest rates, and increase space for productivity-raising investments[10] Amid elevated global policy uncertainty, there is a premium on continued clear communication that can enhance the predictability of the fiscal path.

27. An enhanced fiscal framework with a binding medium-term anchor would support credibility and sustainability. There is scope to enhance the 2023 framework through provisions that ensure consistency between the spending corridor and fiscal targets, mechanisms to limit procyclicality, including linking federal spending growth to increases in structural revenue, and an economic escape clause, and a medium-term fiscal anchor (see IMF, 2023, Country Report No. 23/288).[11] The enhanced framework could provide additional guidance for dealing with major economic shocks—such as those in the aforementioned global downside scenario—with a pre-defined correction mechanism for returning to the pre-shock fiscal path.

28. Achieving the needed adjustment calls for further mobilizing revenue—including by phasing out costly and inefficient tax expenditures—and tackling spending rigidities.

- **Revenue Measures.** Further curtailing or phasing out 1-2 percent of GDP in inefficient, regressive, and expensive tax expenditures is warranted. Total tax expenditures are estimated at 4-5 percent of GDP per year (see text table). The authorities recently eliminated a tax expenditure for the exhibition sector, imposed a modest income tax on the interest of exempted

Estimated Federal Tax Expenditures, 2025
(Percent of GDP)

Simples Nacional	1.0
PIT deductions and exemptions	0.9
CIT sectoral and regional incentives	0.6
Non-profit organizations	0.4
Manaus Free Trade Zone	0.2
Other	1.3
Total	4.4

Source: 2025 draft Annual Budget Law (PLOA) and IMF staff calculations.

[10] Staff scenarios for putting debt on a downward path include two layers. Layer S1 features the recommended additional fiscal effort increasing the primary surplus to 2.5 percent of GDP by 2031 combined with a macroeconomic response, including slower growth and lower policy rates enabled by lower inflation. Layer S2 adds to layer S1 real GDP growth gains from structural reforms (an additional 1.5 percentage points per year during 2026-30) discussed in what follows.

[11] The draft Annual Budget Bill for 2025 (PLOA 2025) presents a Medium-Term Budget Framework that extends the budget horizon to two years. The authorities are considering extending the Medium-Term Budget Framework to three years in the PLOA 2026.

securities, and started to gradually phase out payroll tax exemptions, contributing a combined 0.2 percent of GDP to the primary balance by 2028. Revenue administration measures such as enhancing the registered taxpayer base, consolidating compliance risk management reforms, improving tax debt management, and reducing time to resolve tax disputes would further contribute to revenue mobilization. The authorities introduced in June measures to curtail the abuse of tax offsets, which are expected to raise collection by 0.1 percent of GDP per year in 2025 and 2026.

- **Spending Measures.** Reforms are needed to control continued spending pressures that, if left unchecked, will make compliance with the spending corridor difficult in the coming years, while constraining space to respond to shocks and new priorities.[12] Budget rigidities are extensive, with mandatory spending comprising about 90 percent of federal primary expenditure. Reform options to increase budget flexibility could include: de-linking growth of pension and social assistance benefits from minimum wage growth by revisiting the relevant constitutional provision; further steps to contain real minimum wage growth building on the 2024 spending package; capping pension spending growth; and reviewing the constitutional floors on health and education general government spending, for example, to align their growth with the spending corridor. Pension reform and continuing efforts to improve spending efficiency could also generate fiscal savings. Ongoing efforts to combat fraud in social program qualification are necessary for safeguarding scarce budget resources for the most vulnerable. These spending measures could raise the primary balance by 1-2 percent of GDP in the medium term. Some of the fiscal savings from these efforts could also be deployed to increase spending on priority investments.

29. Implementation of the landmark 2023 VAT reform is expected to significantly simplify the tax system and boost productivity, and efforts rightly aim to secure revenue neutrality. By removing inefficiencies, notably the prior incomplete crediting of taxes paid on intermediate inputs, staff estimates that the reform will lift output and productivity, foster formal employment, and make consumption taxes less regressive through the introduction of a cashback system, a shift in the tax burden from goods to services, and lower statutory rates (see the 2024 Article IV staff report). Minimizing the compliance gap will have the largest impact towards securing the goal of revenue neutrality. To address revenue risks and fully unleash the reform's benefits, full integration of operations across levels of government and effective management of the input tax credit mechanism are critical.[13]

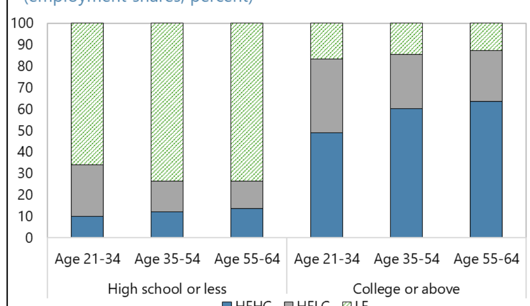
[12] The constitutional floor on health and education mandates the related expenditures to grow in line with revenue, while total primary spending grows by up to 70 percent of real revenue growth. As a result, health and education spending increasingly crowd out other discretionary spending over time. Similarly, social security expenditure is expected to grow at a rate above that of revenue, reflecting the indexation of benefits per beneficiary to minimum wage growth, which in turn is expected to increase at approximately the rate of nominal GDP, as well as the increase in beneficiaries reflecting aging and population growth. The 2026 draft Budget Guidelines Law (PLDO) envisages discretionary spending as a ratio of GDP declining towards zero over the coming years.

[13] See Cebreiro Gomez, Pizzol, Kolerus, Moreira, and Pecho, 2025, "Brazil's VAT Reform: Ensuring Revenue Neutrality," forthcoming IMF Working Paper.

30. PIT reform to enhance tax system progressivity and bolster revenues is warranted. The PIT reform proposal under discussion in Congress features a minimum tax for high-income individuals on income including dividends, implying a welcome broadening in the tax base that would increase progressivity if approved and implemented. At the same time, the proposal's provision that increases the personal exemption threshold from an income of R$3,036 per month to R$5,000 per month would contribute to reducing progressivity, mainly benefitting upper-middle-income workers, as many low- to middle-income workers already earn less than the threshold. The increase would exempt a further estimated 10 million taxpayers from PIT, raising the share of workers who do not pay PIT from about 75 percent to about 85 percent of all workers, surpassing most OECD countries. Offsetting the revenue loss from the PIT threshold increase will require implementing compensating measures of at least 0.2 percent of GDP. In addition to the envisaged taxes on high-income brackets, steps that would further bolster PIT revenues and enhance tax system progressivity include broadening the tax base through the withdrawal of regressive exemptions and deductions, such as health and education expenses, which largely accrue to the richest quintile of taxpayers (Coelho 2021). Companion reforms to lower the eligibility threshold of the SIMPLES regime would discourage PIT evasion and mitigate challenges from the small enterprise trap (IMF, 2023, Country Report No. 23/288).

31. Targeted policies and reforms are necessary to mitigate mounting demographic pressures on the pension system. Declining fertility rates and increasing life expectancy are, as in other countries, contributing to a rising share of the elderly in the population and represent a significant medium-term fiscal challenge. Brazil's pension reform of 2019 introduced important measures that stabilized the pension systems' deficits through 2030 (Box 5). Building on this progress, additional steps are warranted, including healthy aging policies that lead to improvements in the functional capacity of older workers (see the related analysis in Chapter 2 of the April 2025 IMF *World Economic Outlook*), and pension system reforms that lead effective retirement ages to increase in line with improvements in life expectancy.

Artificial Intelligence Exposure and Complementarity
(employment shares, percent)



Source: Lagerborg and others, WEO Apr 2025, Chapter 2
Note: HEHC= High Exposure High Complementarity; HELC= High Exposure Low Complementarity; LE= Low Exposure

- **Healthy Aging Policies.** Drawing on Brazil's *National Policy for the Health of the Elderly*, further advancing healthy aging initiatives (including those tackling behavioral risk factors such as physical inactivity and unhealthy diets) would improve the physical and cognitive capacities of workers aged 55 and more by (i) enhancing productivity and narrowing the participation gap with prime age workers; (ii) allowing for higher effective retirement ages, as healthy aging may encourage older workers to voluntarily delay their retirement, depending on the incentives of pension schemes; and (iii) fostering technological innovation to harness AI-related complementarity to labor in occupations more typical of older, college educated workers in Brazil. Technological progress and innovation can be important not only to counter the adverse effects of population aging on output growth, but also to enhance the malleability of aging itself.

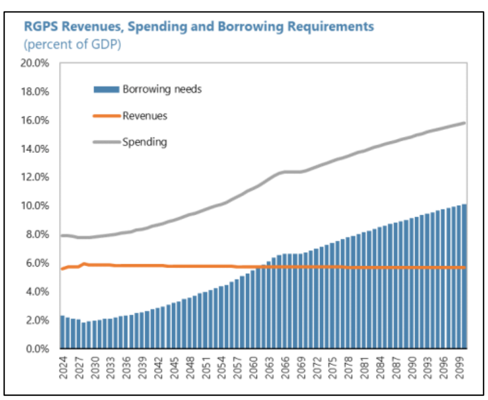
- **Pension Systems Reforms.** Reforms could gradually strengthen the general pension system (RGPS) with a well-parametrized combination of: (i) reduced replacement rates for both newcomers and existing pensioners; (ii) higher contribution rates that would move Brazil closer to the OECD average; (iii) elimination of the partial PIT exemption for pensioners above 65 years old; (iv) an increased effective retirement age, notably by closing early retirement loopholes; and (iv) coordination of non-contributory regimes with other social programs to avoid duplication of benefits. Encouraging full convergence of subnational civil servants' regimes (RPPS) to the RGPS parameters, along with acceptable transition periods, would further support the sustainability of the pension system. In the medium term, the retirement age and minimum contribution periods could dynamically adjust to demographic trends through automatic adjustment mechanisms.

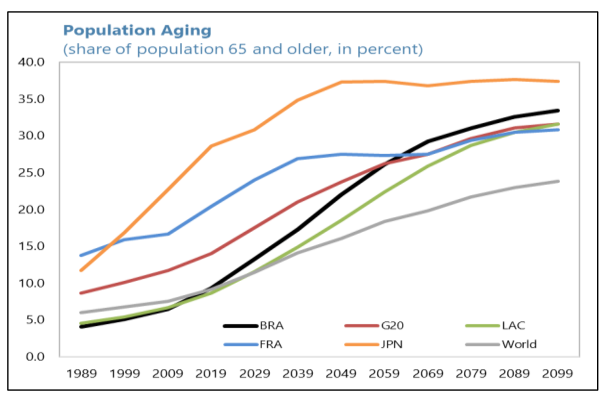
Such a multifaceted approach would ease fiscal pressures stemming from an aging population not only via pension system parametric changes, but also by raising labor force participation rates among older individuals, allowing for retention of experience and expertise as well as higher productivity. Broader labor supply policies would provide further relief (see ¶41).

Box 5. Demographic Pressures and the Pension Reform of 2019

Brazil's rate of demographic aging is one of the fastest globally. In 2022, almost 22 million Brazilians were aged 65 years and over—accounting for 11 percent of the population—almost doubling in size compared to year 2000. With the country's fertility rate falling (from 2.32 to 1.57 children per woman) and life expectancy at birth rising (from 71.1 years to 76.4 years) between 2000 and 2023, the aging of the Brazilian population is expected to accelerate during the next decades. The increase in the dependency ratio, where fewer workers support more retirees, is expected to strain the pension system.

The 2019 pension reform introduced important measures that helped to stabilize Brazil's pension systems in the medium term. By establishing a minimum retirement age and linking replacement rates to years of contribution for the general pension regime (RGPS), the reform stabilized RGPS deficits at around 2.5 percent of GDP through 2030. The public sector regime (RPPS) for the federal government was also aligned with the RGPS, stabilizing federal RPPS deficits and setting a benchmark for future reforms, including of subnational RPPS. Despite these gains, the long-term sustainability of Brazil's pension systems has not been addressed. The authorities project RGPS deficits to rise again after 2030 and reach 6 percent of GDP by 2060, driven in part by unfavorable demographic trends.





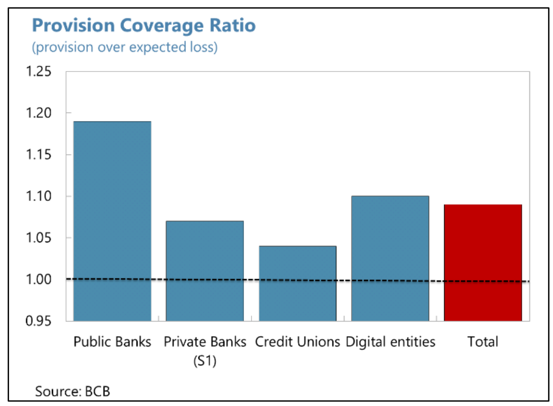
Sources: Authorities' estimates (PLDO 2026), UN World Population Prospects 2024.

Authorities' Views

32. The authorities reaffirmed their commitment to improve Brazil's fiscal position. They viewed the zero-deficit target for 2025, with the tolerance margin of 0.25 percent of GDP, as achievable on the back of strong revenue performance and expenditure restraint. Automatic spending freezes could be activated if needed to compensate for higher-than-expected expenses on social security. They assessed the targeted primary balance path for 2026-29 as sufficient for achieving a stabilization of the public debt ratio by 2029. They acknowledged that following the successful implementation of revenue measures, which recovered the tax base lost after the 2022 tax cuts, further efforts on the spending side could facilitate fiscal adjustment. The authorities saw merit in pursuing additional reforms to scale back tax expenditures. They considered that the proposed PIT reform currently under discussion in Congress would be equity enhancing and noted that its fiscally neutral design would safeguard revenues. They highlighted that the revenue-neutral VAT reform was on track for effective implementation from 2026 onwards.

C. Safeguarding Financial Stability

33. The financial sector was resilient in 2024 and is expected to remain so despite risks associated with higher interest rates. In 2024, banks' asset quality and profitability indicators improved, supported by a robust economy. However, the renewed monetary policy tightening since September raises credit risks for indebted households and small firms, given the prevalence of floating rate loans. Financial institutions are expected to remain resilient, with provisioning levels exceeding anticipated credit losses. The authorities' latest stress tests continue to underscore the banking sector's robustness but indicate that some institutions may face profit distribution limits in severe crisis scenarios stemming from a loss of confidence in the fiscal regime. Stress tests on investment funds indicate that risks have been well contained since June 2023, but continuous monitoring is prudent given their connection with banks and significant holdings of sovereign bonds. The risk of an adverse bank-sovereign nexus, including potential valuation losses from higher interest rates, is mostly alleviated by banks' appropriate interest rate risk management and BCB's prudential measures. The 2026 Financial Stability Assessment Program (FSAP) will provide a comprehensive update of the financial sector resilience assessment.



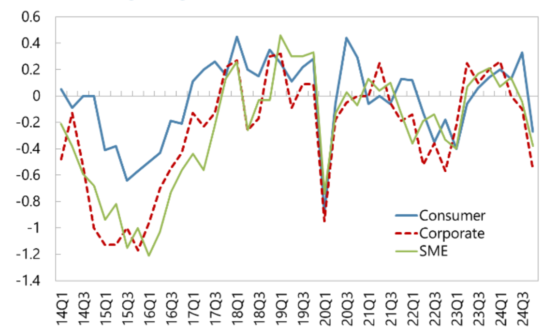
34. The authorities are implementing regulatory changes aimed at strengthening financial sector resilience. During 2023-25, payment institution conglomerates that are integrated with a financial institution are being subject to gradually increasing capital requirements and prudential adjustments to meet standards in line with traditional banks. Updated credit loss provisions will be phased in from 2025 to 2030 to align with IFRS9 standards. During 2025-2028, revised methods for calculating risk-weighted assets will increase operational risk capital needs. Although these regulatory adjustments, which are in line with the 2018 FSAP recommendations (Annex XIII), might lower some banks' capital levels, overall capitalization ratios would remain above the regulatory threshold. The Financial Stability Board (FSB)'s recent peer review of Brazil's investment fund sector also acknowledged significant improvements in regulation and supervision in line with its recommendations in 2017.

35. The current macroprudential policies are broadly appropriate. The countercyclical capital buffer (CCyB) remains at the neutral rate of zero percent. This is appropriate as the positive credit gap primarily reflects expansion of the debentures market (especially those with tax incentives for infrastructure investment), while bank credit supply conditions are tightening. That said, the authorities could consider moving to a positive-neutral CCyB in the future, which could help provide releasable policy space during downturns. Continuing to diligently monitor household credit risks and implement suitable macroprudential measures when necessary, such as a debt-service-to-income cap, is prudent.

36. Reforms to facilitate a reduction in household leverage are appropriate. The household debt service-to-income ratio has increased since the end of last year's *Desenrola* program, which assisted consumers in settling overdue debts and regaining access to credit. In March, the authorities enhanced an existing private payroll loan program aiming to reduce credit costs. Private-sector employees can now request loans through a centralized government app, using direct payroll deductions and 10 percent of their severance funds as collateral without requiring a bilateral agreement between the employer and a bank as was the case previously. Participation has been strong as interest rates tend to be lower than credit cards or unsecured personal loans. The government has appropriately stressed the need for financial education and put in place mechanisms to encourage the use of the newly available credit to pay off high-interest debts. The reform's macroeconomic impact through increased credit and consumption is currently expected to be modest (the outstanding credit of this line amounts to about 0.3 percent of GDP). Close monitoring and oversight are necessary to ensure the program does not increase household leverage or hinder the BCB's efforts to control inflation.

Bank Credit Conditions: Expected Supply

(Minus means tightening)

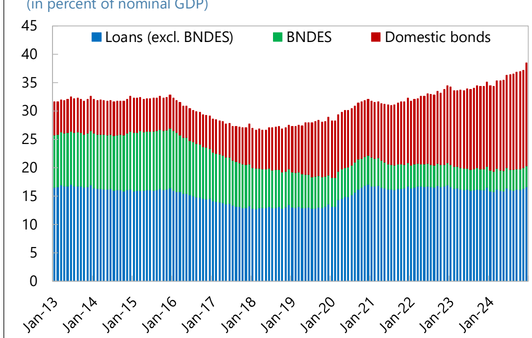


Source: BCB Survey on Credit Conditions.

37. Lending by public banks should continue to focus on addressing market failures, such as supporting long-term investment. Since a set of reforms in 2017, the funding cost of the Brazilian National Development Bank (BNDES) has transitioned from a subsidized rate (TJLP) to a rate that reflects the cost of government funding (TLP).

Domestic Financing to Nonfinancial Corporations

(in percent of nominal GDP)



Sources: Haver

As a result, BNDES has seen a reduction in its share of total long-term financing. Instead, long-term investment, including on infrastructure, is relying more on domestic bond issuance with tax incentives, at an estimated fiscal cost of 0.1 percent of GDP. At present, public banks appear well-capitalized, profitable, and liquid, and have been paying dividends to the government. Continued careful management of the role of public banks to provide and catalyze long-term investment is needed to mitigate any potential risks to the fiscal position, monetary policy transmission, and market efficiency.

38. The BCB continues to advance its financial innovation agenda. *Pix*, the instant payment system developed by the BCB, now accounts for 49 percent of all electronic payments in Brazil—the most popular method, reflecting its low costs and immediate settlement. The BCB is developing new functionalities for *Pix*, such as contactless and offline payments, recurring payments, the "buy now, pay later" (BNPL) installment payment system, and financing based on leveraging cash flow on *Pix*. The pilot of Brazil's Central Bank Digital Currency, *Drex*, has entered the second phase, where thirteen financial services are being tested using smart contracts. Phase one revealed challenges related to data privacy protection under bank secrecy laws. Phase two tests additional use cases and integration with external platforms, while continuing to explore data privacy solutions. Regulatory and supervisory adjustments for smart contracts and digital transactions are also being studied, with the report expected by year-end. Building on past reforms, granting the BCB additional administrative and financial autonomy would enhance its ability to attract and retain the professional talent necessary for contributing to financial innovations in the context of an evolving financial ecosystem and sustainable finance initiatives, while ensuring effective accountability mechanisms and cyber security.

Authorities' Views

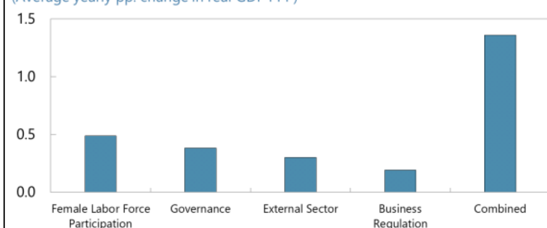
39. The authorities concurred that the financial sector is resilient and that systemic risks are contained. They observed that credit growth had started to decelerate and anticipated an increase in credit risks among leveraged households and micro and small enterprises due to higher interest rates. The authorities agreed with staff that the financial sector's resilience reflected ample buffers and recent regulatory changes that increased provisions. The authorities did not currently see a need for a limit on the debt service-to-income ratio. They pointed out that supervisory action, timely monitoring and, when needed, the set of macroprudential measures used in past credit cycles had proven effective at containing risks. That said, the authorities considered that limits on debt-service were in their toolkit and could be used in the future if needed. The BCB considers that the studies on the framework for setting a positive CCyB in periods without significant accumulation of financial risks have reached a level of maturity that allows for deliberation on its adoption in the near future. The authorities considered that risks from non-bank financial institutions or the sovereign-bank nexus were modest, citing strong prudential measures and contagion analysis results. They highlighted ongoing reform efforts to reduce credit costs, including by strengthening the legal framework for bankruptcy, guarantees, capital markets and resolution. The BCB agreed that additional administrative and financial autonomy would grant the BCB greater flexibility to cover investments that would help advance the financial innovation agenda while ensuring effective supervision. For the CBDC, cyber security and data privacy remain prerequisites for public launch.

D. Supporting Inclusive Medium-Term Growth

40. Structural reforms together with expanding hydrocarbon production have lifted Brazil's medium-term growth prospects. At the time of the Brazil 2024 Article IV Consultation, IMF staff assessed that total factor productivity (TFP) growth had risen in recent years, reflecting past productivity-enhancing reforms, including, among others, the 2017 labor reform. IMF staff also revised up medium-term growth projections from 2.0 percent to 2.5 percent to reflect additional factors, including the acceleration in hydrocarbon output and the implementation of the 2023 landmark VAT reform.

41. Additional structural reforms and ecological transformation would further raise medium-term growth prospects, while extending recent gains in social inclusion. Labor supply policy priorities include encouraging labor force participation, notably for women, and encouraging formal employment, which would complement the effects of the aforementioned healthy-aging initiatives. Strengthening market competition and the business environment, including in the areas of governance and the external sector, are further priorities. Staff's analysis suggests that reforms to facilitate female labor force participation could add 0.5 percentage point to medium-term growth, while closing gaps in "first-generation reform areas" (business regulation, governance, and the external sector) could raise annual growth by about 1.0 percentage point per year on average for five years.[14] Advancing the Ecological Transformation Plan provides additional upside to medium-term sustainable growth. Overall, such reform efforts would, in addition to supporting economic wellbeing, inclusion, and opportunities, further secure debt sustainability.

Impact of Reforms: Average Annual Growth Over Five Years
(Average yearly pp. change in real GDP PPP)

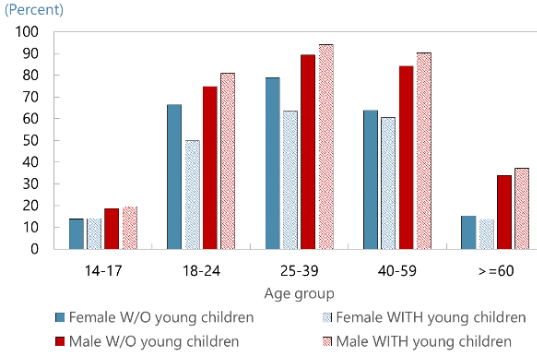


Source: Fund staff calculations.
Notes: The analysis on governance, external sector, and business regulation, prepared by Andrea Medici and Marina Tavares (both RES), builds on Budina and others (2023), "Structural Reforms to Accelerate Growth, Ease Policy Trade-offs, and Support the Green Transition in Emerging Market and Developing Economies," International Monetary Fund Staff Discussion Note SDN/2023/007. The impact on structural reforms is based on 'major historical reform' which is defined as two-standard deviation increase in the underlying indicator, based on the sample of EMDEs.

Encouraging Labor Force Participation and Securing Gains in Social Inclusion

42. Intensifying efforts to increase labor force participation is warranted. Despite the current historically low unemployment rate, labor force participation rates have not fully recovered

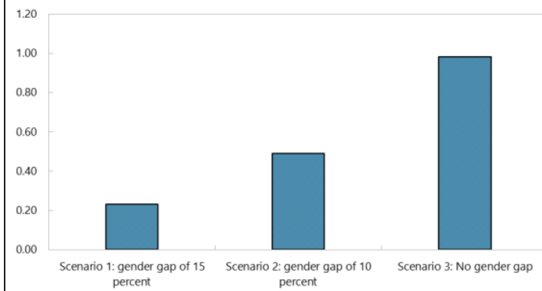
Labor Force Participation Rate of Each Group in 2023
(Percent)



Sources: PNADC; IMF staff estimates.

[14] The analysis, prepared by Andrea Medici and Marina Tavares (both RES), builds and updates on Budina and others, 2023, "Structural Reforms to Accelerate Growth, Ease Policy Trade-offs, and Support the Green Transition in Emerging Market and Developing Economies," International Monetary Fund Staff Discussion Note SDN/2023/007.

Percentage Point Increase in Growth per Year Relative to Baseline (2025-2030 average)



Sources: IBGE; Penn World Table; IMF staff estimates.
Notes: Analysis based on growth decomposition using Cobb-Douglas production function, similar to October 2024 IMF *Regional Economic Outlook, Western Hemisphere, Background Paper 1.* Male LFPR is assumed to be constant at 2024 level and unemployment rate follows the projection in Table 1.

from the pandemic, reflecting a persistent gap between men and women. Staff analysis suggests that reducing the gender gap in labor force participation from the current 20 percentage points to 10 percentage points by 2033 could raise GDP growth by on average 0.5 percentage point per year during the transition period.[15] Staff analysis based on the National Household Sample Survey (PNADC) suggests that much of the gender gap is explained by the need to attend to household responsibilities (see Annex VIII). Factors associated with lower female labor force participation include having young children (up to six years of age) or a partner in the household, which may motivate women to take on full-time household responsibilities as their partners take on the single-earner role. Staff analysis suggests that the role of these factors becomes stronger in households receiving cash transfers associated with Brazil's flagship *Bolsa Família*. Steps that could facilitate female labor force participation include efforts to further increase: awareness, availability, and accessibility of quality daycare services; paternity leave; and the progressivity of the tax system (see Annex IX).[16] Staff analysis using TaxFit model simulations also suggest that further tapering the exit from *Bolsa Família* benefits upon employment would reduce disincentives from paid work, predominantly among women, and generate additional government revenue. Finally, staff analysis suggests a significant pay gap between men and women after controlling for occupational, industry, educational, and demographic characteristics (Annex VIII). Addressing these gaps, including through effective implementation of the 2023 landmark Pay Equity Law would further encourage female labor force participation, address misallocation of women's talents and abilities, and support productivity and inclusion.

43. Reducing informality would further support durable and inclusive growth. Although formal employment has increased significantly during the recovery from the pandemic, over 40 percent of the employed population is still in the informal sector, with higher informality rates observed among lower-educated and youth workers.[17] While the informal sector can act as a shock absorber during economic downturns, informality has been associated with slower adjustment to aggregate and sectoral shocks—when reallocation of labor is needed—resulting in negative impacts on productivity growth.[18] Furthermore, employment in the informal sector often lacks adequate social protection and weakens the tax base. Further steps aimed at lowering costs to hiring in the

[15] The analysis builds on that in Background Paper 1 of the October 2024 IMF *Regional Economic Outlook, Western Hemisphere.*

[16] A more progressive tax system would reduce the marginal tax burden on women who tend to earn less than men on average.

[17] Workers are defined to be formally employed if they are (i) employees with a formal contract (*Carteira de Trabalho e Previdência Social*); or (ii) employers or self-employed workers who are contributing to social securities.

[18] See Background Paper 3 of the October 2019 IMF *Regional Economic Outlook, Western Hemisphere*.

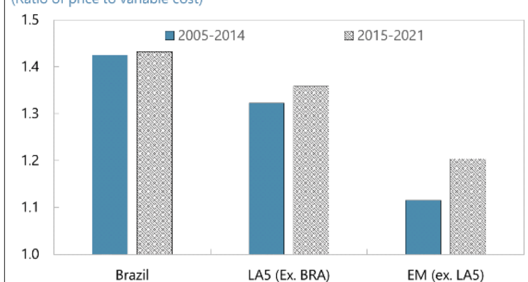
formal sector and ensuring that increases in minimum wages align with productivity growth would support the authorities' efforts to reduce informality.

44. Additional steps aimed at enhancing human capital would complement such reforms and sustain benefits from the ongoing economic expansion. Continued efforts to promote and enhance educational attainment, building on the *Pé-de-Meia* Program, would enable currently disadvantaged groups to secure and extend recent labor market gains. Expanding adult education and vocational training programs that are aligned with skills demanded in the job market and accessible to less-educated workers is a further priority. Facilitating workers' participation in social security programs and promoting private savings, including through increased financial integration and literacy initiatives, would also provide valuable buffers for vulnerable workers as the economic cycle moderates.

Further Strengthening Competition and the Business Environment

45. Simplifying regulations, reducing the administrative burden on start-ups, and easing entry barriers would further support competition and innovation. Staff analysis suggests that recent advances in competition in Brazil's fintech sector, supported by enabling regulations, has reduced lending rates and improved financial intermediation efficiency (Box 6). Steps to foster competition are needed in other sectors of the economy. Studies suggest that the concentration of market power in Brazil and other LA5 economies—as evidenced, for example, by margins between prices and variable costs (markups)—remains above that in other regions, with negative implications for business dynamism, investment, and innovation (Vostroknutova et al. 2025; Maloney et al. 2024; IMF 2021; Díez, Leigh, and Tambunlertchai 2018). Further efforts to promote competition, including lowering barriers to entry for firms and strengthening competition authorities, would enhance business investment and productivity growth.

Average Markups
(Ratio of price to variable cost)



Source: Orbis; IMF staff estimates.
Notes: Sales-weighted averages. EM= emerging market economies.

46. Continued strengthening of the anti-corruption framework as well as efficiency and independence of the judiciary would enhance the business environment. Brazil has strengthened its anti-corruption framework, including for investigating and sanctioning foreign bribery. The new integrity and anti-corruption plan (2025-27) is a positive development. Staff encourages the authorities to advance on governance reforms to further mitigate corruption vulnerabilities and level the playing field. The priority ahead is the effective implementation and enforcement of the framework.[19] The authorities have also strengthened environmental governance. Publication of asset declarations of high-level public officials, criminalization of illicit enrichment, and strengthening the conflict-of-interest system would support ongoing efforts.

[19] World Bank, 2024, *Brazil – Country Partnership Framework for the Period FY24-28 (English).*

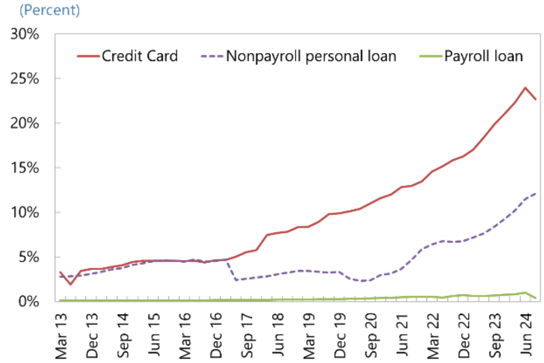
47. Addressing the main AML/CFT gaps identified by the FATF/GAFILAT assessment would mitigate related financial sector vulnerabilities. Brazil has developed policies to tackle many of its higher money laundering (ML) risks and the BCB's supervision has contributed to the strengthening of the detection and prevention of ML. Despite advances in strengthening the Financial Intelligence Unit (COAF), including the introduction of technological tools for the development of financial intelligence analyses, further steps to increase FIU capacity should be progressively implemented. Continuing the process of integration and participation of the Revenue Office in the AML/CFT system is warranted. Brazil should also ensure that competent authorities, in particular law enforcement agencies and COAF, have timely access to a broader range of information on the beneficial ownership. Continuous analysis of the financial aspects of crime, with a focus on cross-border and environmental crimes, and more frequent investigations into ML activities would enhance understanding of ML threats and support their ongoing efforts to combat organized criminal groups. Effective implementation of the recently strengthened counter-terrorist financing and targeted financial sanctions frameworks would reduce financial sector vulnerabilities further.

Box 6. Fintech Competition Improves Financial Intermediation Efficiency[1]

Supported by enabling regulations and high interest margins, fintech lending has become a major player in consumer credit in Brazil. Brazil's banking sector is concentrated with high-interest spreads, keeping banks profitable despite strict provisioning standards. To boost competition, the BCB introduced regulations for credit fintech companies to operate in the financial system with their own license and implemented the regulatory sandbox. In 2024, fintech lending represented a quarter of the credit card market and over 10 percent of the nonpayroll personal loan market.

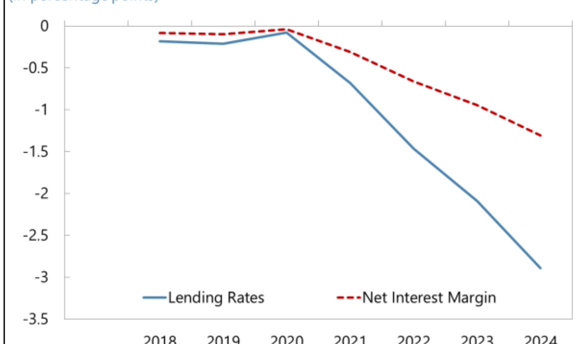
Staff analysis suggests that traditional banks have responded to competition from fintech by lowering lending rates and enhancing operational efficiency. Using Brazilian bank-level data for 2012-2024 and a Bartik instrumental variables approach, the analysis finds that a one standard deviation increase in exposure to fintech competition results in a 2.9 percentage point reduction in lending rates and a 1.3 percentage point decrease in the net interest margin among traditional banks. The lower margin suggests more efficient financial intermediation. Despite improvements in operational efficiency, banks experienced a decline in return on equity and assets due to the reduced margin. At the same time, there was no observed impact on credit volume or risk-taking behavior.

Share of Nonbank Lending
(Percent)



Source: BCB.

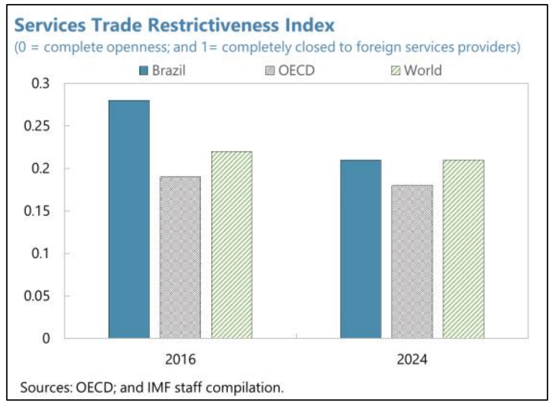
Cumulative Effects of Fintech Competition on Traditional Banks
(In percentage points)

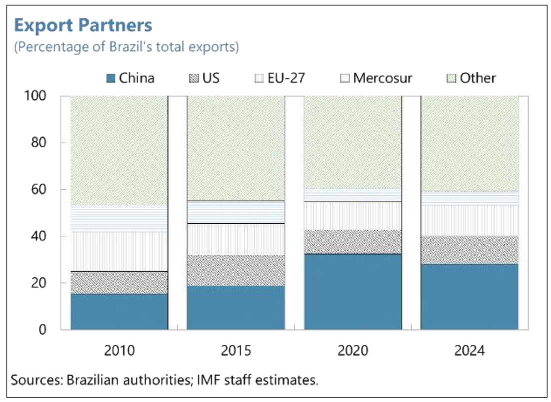


Source: IMF Staff calculation.

1/ See Rui Xu, "Fintech Competition and Banks' Shrinking Margins in Brazil.", forthcoming IMF Working Paper.

48. Brazil has made progress in opening the economy. Trade openness, measured by the sum of exports and imports of goods and services relative to GDP, increased from around 22 percent of GDP in 2010 to 35 percent of GDP in 2024, though still remaining below the average for LA5 economies excluding Brazil (56 percent) and the world average (close to 60 percent), in part reflecting the large size of Brazil's economy. Reflecting progress in improving the regulatory environment and liberalizing the services sector (especially transport and logistics services), Brazil's Services Trade Restrictiveness index, as measured by the OECD, has declined over the past decade and is close to the world average but still above that of OECD countries. In March 2025, Brazil eliminated import tariffs and modified tariff-rate quotas for several food products. Further reducing trade and investment barriers, additional trade facilitation commitments, and regulatory cooperation would yield benefits from participation in global value chains. Continuing to strengthen trade relationships with existing and new partners would also support resilience. As in other countries, trade policies should seek to resolve trade tensions, promote stability and transparency, and deepen economic integration through nondiscriminatory reductions in trade barriers or by pursuing free trade agreements at the regional, plurilateral or multilateral level.[20]





49. Brazil is implementing targeted industrial policies in priority sectors. The *Nova Indústria Brasil* policy launched in January 2024 aims to fill Brazil's infrastructure gap. It outlines a shift in sectoral focus to innovation and sustainability in agriculture; health; infrastructure; decarbonization and energy transition; digitalization; and defense. Brazil has also implemented subsidy, trade, and other policy measures in sectors including low carbon technology, advanced technology, and medical products. To minimize trade and investment distortions, such policies should continue to be targeted narrowly to specific objectives in sectors with well-identified market failures, time-bound, subject to regular cost benefit assessments, and not discriminate between domestic and foreign firms.

Advancing Ecological Transformation

50. Brazil is accelerating the implementation of its Ecological Transformation Plan aiming to foster productivity, investment, and job-rich growth (Annex X). The recently enacted Fuels of

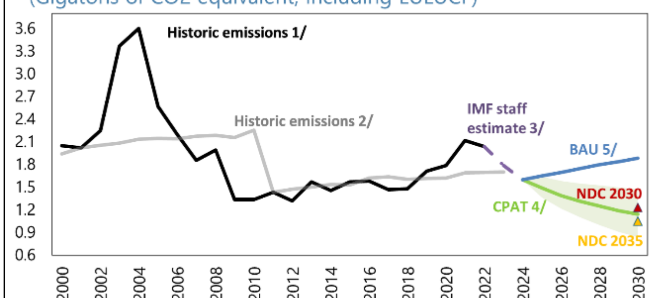
[20] China and the European Union (EU) are now Brazil's first and second largest trading partners, respectively. In December 2024, the EU and the Southern Common Market (MERCOSUR) finalized long-running negotiations on a trade deal. When fully implemented, the agreement is expected to increase trade flows between Brazil and the EU.

the Future bill (Law No.14,993 of October 2024) aims to lower transportation emissions through increased biofuel mix-ins, use of sustainable aviation fuels. Moreover, Law No. 15,042 enacted in December 2024 establishes a legal framework for the creation of an emission trading system, which is expected to become operational by 2030 and cover up to 15 percent of the nation's emissions. Such regulations could stimulate growth by promoting investments in decarbonization and carbon offsetting. The authorities are also strengthening the framework for mobilizing financing for the ecological transformation, including through the new *Eco Invest Brasil* program and the second issuance of sustainable sovereign bonds in 2024.

51. Brazil's recently updated Nationally Determined Contribution (NDC) envisages significant emission reductions. The latest NDC targets a 53 percent reduction in total greenhouse gas (GHG) emissions by 2030 and at least 59 percent reduction by 2035, both relative to 2005 levels.[21] This target corresponds to a 35 percent reduction in GHG emissions compared to the business-as-usual (BAU) scenario by 2030.

52. Brazil has made notable progress in reducing deforestation in recent years and is on track to meet its NDC targets (Annex X). Brazil has decreased its annual GHG emissions substantially in the last two decades, primarily through efforts to curb deforestation in the Amazon in the early 2000s. Staff estimates suggest that the stricter enforcement of the country's forest code allowed reducing emissions from Land Use, Land Use Change, and Forestry (LULUCF) by 0.43 Gigatons of CO2 equivalent in 2023-2024. This trend is expected to continue as the authorities pursue their goal of eliminating illegal deforestation by 2030, which is supported by new regulations under the umbrella of the country's Ecological Transformation Plan. Staff analysis suggests that Brazil is on track to meet its 2030 NDC target if these policies are implemented in full.

Greenhouse Gas Emissions vs. NDC Targets
(Gigatons of CO2 equivalent, including LULUCF)



Sources: *Ministério da Ciência, Tecnologia e Inovação*, IMF Climate Change Dashboard with data from the UNFCCC, EDGAR, FAO, CPAT, NDC, and Fund Staff calculations.
1/ Data obtained from *Ministério da Ciência, Tecnologia e Inovação*, used for UNFCCC submissions and formal implementation progress evaluations. CO2 equivalents calculated using Global Warming Potential values from IPCC's 5th Assessment Report (GWP AR5)
2/ Data obtained from the IMF's Climate Change dashboard, including estimates of emissions from Land Use, Land-Use Change, and Forestry (LULUCF) produced by the Food and Agriculture Organization (FAO). FAO estimates are based on data collected in five year increments, potentially delaying responses of emissions to policy changes. CO2 equivalents calculated using Global Warming Potential values from IPCC's 6th Assessment Report (GWP AR6)
3/ Estimates for 2023 and 2024 were generated by regressing LULUCF on deforestation rates in various biomes.
4/ Projections from the Climate Policy Assessment Tool (CPAT) are based on current and recent policies, with reported ranges reflecting uncertainties from varying parameter values in the model.
5/ The business-as-usual (BAU) scenario assumes no new mitigation policies implemented in the energy and agriculture sectors, and that deforestation enforcement will revert to levels seen prior to 2023.

Authorities' Views

53. The authorities expect their reform agenda will foster even stronger sustainable growth and inclusion. They concurred with staff on the need for policies to boost labor force

[21] The NDC targets are defined in terms of greenhouse gas (GHG) emissions as reported in national inventories submitted to the United Nations Framework Convention on Climate Change (UNFCCC). These relative NDC targets correspond to absolute reductions of 1.2 Gt of CO2e by 2030 and 1.05 Gt of CO2e by 2035, based on the Fifth Assessment Report (AR5) Global Warming Potential (GWP) values.

participation and highlighted that the law on equal pay passed in 2023 would contribute to narrowing gender wage gaps. They noted that over 70 percent of the new formal jobs created in 2024 were taken up by *Bolsa Família* recipients and emphasized ongoing efforts to ensure the accuracy of the *Cadastro Único* household registry and steps to strengthen educational attainment and reduce skill mismatches, including initiatives such as the *Pé-de-Meia* and *Escola do Trabalhador 4.0* programs. Regarding the AML/CFT framework, they emphasized that the Financial Intelligence Unit has extensive powers to effectively investigate suspicious transactions. They are in the process of updating the national risk assessment, expected to be published early next year, and the findings will inform the development of a national strategy. They reconfirmed their commitment to ensuring that trade safeguard measures be introduced based on evidence and consistent with WTO obligations.

54. Highlighting significant progress with the ecological agenda, authorities are confident in their ability to meet NDC targets. The authorities underscore the expected long-term effects of their ongoing Ecological Transformation Plan, which is leveraging Brazil's comparative advantages to create quality jobs, boost environmental sustainability, and promote a fair and inclusive energy transition. They emphasize the progress made in the implementation of the Eco Invest Brazil program, the development of the *Sustainable Taxonomy* and *Plano Clima*, as well as the ratification of legislation for the Emission Trading System. With a notable increase in efforts to curb deforestation in 2023 and 2024, authorities are confident that the country is on course to meet its NDC targets. They concurred with staff on the importance of reforestation efforts and policies focused on non-LULUCF sectors to achieve emission reductions beyond 2030.

STAFF APPRAISAL

55. Growth is projected to moderate in the near term as inflation converges to target and then strengthen to 2.5 percent over the medium term. The moderation reflects tight monetary policy, a scaling back of fiscal support, and heightened global policy uncertainty. Over the medium term, economic activity is expected to be supported by the implementation of the efficiency-enhancing VAT reform and the acceleration in hydrocarbon production. Inflation is expected to reach 5.2 percent by end-2025 before gradually converging to the 3 percent target by end-2027. Staff assessed the external position in 2024 as broadly in line with the level implied by medium-term fundamentals and desirable policies.

56. Risks to the growth outlook are tilted to the downside amid heightened global policy uncertainty. Upside risks to growth stem from stronger-than-expected household consumption, in the context of a still tight labor market, as well as from faster implementation of productivity-enhancing reforms and the Ecological Transformation Plan. Downside risks to growth stem from a lower-than-envisaged fiscal effort, which could increase policy uncertainty and pressures on public debt and inflation, resulting in higher borrowing costs and weaker investment. Externally, downside risks stem from a slowdown in major economies amid heightened global trade tensions and policy uncertainty, with lower commodity prices and tighter global financial conditions. A sound financial system, adequate FX reserves, low reliance on FX debt, large government cash buffers, and a flexible exchange rate continue to support Brazil's resilience.

57. The pivot to a monetary policy tightening cycle was appropriate and consistent with bringing inflation and inflation expectations back to the 3 percent target. The BCB's policy stance and clear commitment to the 3 percent target bode well for the decline in inflation expectations, conditional on continued credibility of both fiscal and monetary policy frameworks. In the context of heightened global policy uncertainty and inflation expectations above target-consistent levels, maintaining flexibility on the pace and length of the hiking cycle is prudent. The flexible exchange rate regime and adequate FX reserves remain valuable shock buffers and continue to support Brazil's resilience. FX intervention could be used to address episodes of higher risk premia when FX liquidity becomes shallow, without substituting for warranted adjustment of macroeconomic policies. The longstanding tax on certain financial transactions (IOF-FX) gives rise to an MCP with respect to international current and capital transactions. At the same time this tax is also an exchange restriction with respect to payments and transfers for current international transactions. The authorities are not requesting approval. The tax is being phased out and is expected to be eliminated in due course in line with the existing plan to reduce the rate to zero, consistent with staff advice.

58. The financial sector was resilient in 2024 and is expected to remain so despite risks associated with higher interest rates. Financial institutions have ample buffers, and the authorities are implementing regulatory changes aimed at strengthening financial sector resilience. Current macroprudential policies are broadly appropriate. It is advisable to continue closely monitoring household credit risks and apply appropriate macroprudential measures as needed, such as a cap on the debt-service-to-income ratio. Reforms to facilitate a reduction in household leverage are recommended. Close monitoring and oversight are necessary to ensure that the recently enhanced private payroll loan program does not increase household leverage or hinder the BCB's efforts to control inflation. The risk of an adverse bank-sovereign nexus is mostly alleviated by banks' appropriate interest rate risk management and the BCB's prudential measures. Lending by public banks should continue to focus on addressing market failures, such as supporting long-term investment.

59. The BCB continues to advance its financial innovation agenda. The BCB is developing new functionalities for *Pix*, its instant payment system, such as contactless and offline payments, recurring payments, "buy now, pay later" (BNPL) and financing based on leveraging cash flow. The pilot of Brazil's CBDC, *Drex*, has entered the second phase, which tests additional use cases and integration with external platforms, while continuing to explore data privacy solutions. Granting the BCB additional administrative and financial autonomy, including to cover operating expenses, would enhance its ability to attract and retain the professional talent necessary for contributing to financial innovations in the context of an evolving financial ecosystem and sustainable finance initiatives, while ensuring effective accountability mechanisms and cyber security.

60. The authorities' efforts to continue improving the fiscal position, while protecting targeted social support and investment spending, are welcome and further steps are

warranted. For 2025, staff projects a federal primary deficit of 0.6 percent of GDP, within the fiscal target tolerance interval after allowed deductions, reflecting continued pressure on social safety net spending, partly offset by expenditure restraint and revenue measures adopted by the authorities. The 2026 draft Budget Guidelines Law (PLDO) submitted to Congress in April reaffirmed the federal primary fiscal surplus target of 0.25 percent of GDP for 2026 and the indicative target path to a surplus of 1.0 percent of GDP by 2028. It also set a new indicative target of 1.25 percent of GDP for 2029. Based on more favorable macroeconomic assumptions than staff, notably on interest rates, the authorities estimate that achieving the fiscal targets would allow public debt (authorities' definition) as a ratio to GDP to peak in 2028, followed by a gradual decline in subsequent years.

61. Staff recommends a sustained and more ambitious fiscal effort to put public debt on a firmly downward path, facilitate a lower path of interest rates, and open space for priority investments. Additional measures that further demonstrate a clear path to improving the fiscal position would reduce pressures on the currency and prices and—conditional on inflation expectations heading back to target—facilitate reductions in policy interest rates. Staff's debt sustainability assessment finds risks of debt distress to be moderate under the baseline scenario, but the debt trajectory remains highly sensitive to shocks to borrowing costs and real GDP growth and the materialization of contingent liabilities. The predominantly domestic investor base, low external debt, large cash buffers of the government, and the BCB's substantial holdings of government securities, which are automatically rolled over by law, mitigate risks and provide room for fiscal consolidation to proceed at a steady pace over the medium term. Staff recommends a path for the primary fiscal balance that starts with achieving the 0.25 percent of GDP surplus target in 2026, followed by steady improvements resulting in a federal primary fiscal surplus of 2.5 percent of GDP by 2031. An enhanced fiscal framework with a binding medium-term anchor would support credibility and sustainability. Achieving the needed adjustment calls for further mobilizing revenue—including by phasing out costly and inefficient tax expenditures—and tackling spending rigidities. Targeted policies and reforms are necessary to mitigate mounting demographic pressures on the pension system.

62. Implementation of the landmark 2023 VAT reform is expected to significantly simplify the tax system and efforts rightly aim to secure revenue neutrality. By removing inefficiencies, staff estimates that the reform will lift output and productivity, foster formal employment, and make consumption taxes less regressive. Minimizing the compliance gap will have the largest impact towards securing the goal of revenue neutrality. To address revenue risks and fully unleash the reform's benefits, full integration of operations across levels of government and effective management of the input tax credit mechanism are critical.

63. PIT reform to enhance tax system progressivity and bolster revenues is warranted. The PIT reform proposal under discussion in Congress features a minimum tax for high-income individuals on income including dividends, implying a welcome broadening in the tax base that would increase progressivity if approved and implemented. Offsetting the revenue loss from the proposal's personal exemption threshold increase will require implementing compensating measures of at least 0.2 percent of GDP. Steps that would further bolster PIT revenues and enhance tax system progressivity include broadening the tax base through the withdrawal of regressive exemptions and deductions, such as health and education expenses, which largely accrue to the richest quintile of taxpayers.

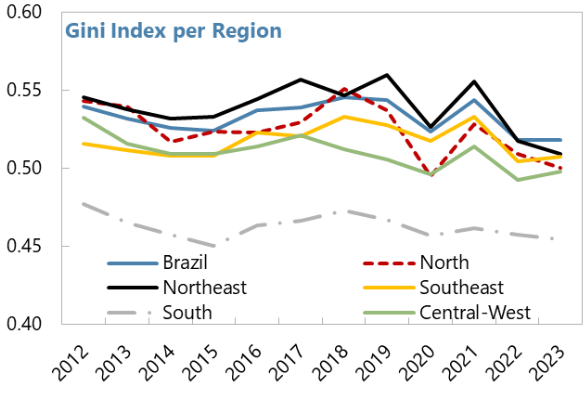
64. Structural reforms together with expanding hydrocarbon production have lifted Brazil's medium-term growth prospects. Additional reforms and the Ecological Transformation Plan would further raise medium-term growth prospects, while extending recent gains in social inclusion. Intensifying efforts to increase labor force participation, particularly for women, is necessary. Addressing bottlenecks to the adoption of digital technologies would further support worker productivity, including by amplifying their ability to harness the benefits of AI. Simplifying regulations, reducing the administrative burden on start-ups, and easing entry barriers would further support competition and innovation. Continued strengthening of the anti-corruption framework as well as efficiency and independence of the judiciary would enhance the business environment. Addressing AML/CFT gaps identified by the FATF/GAFILAT assessment would mitigate related financial sector vulnerabilities. To minimize trade and investment distortions, industrial policies should be targeted narrowly to specific objectives in sectors with well-identified market failures, time-bound, subject to regular cost benefit assessments, and not discriminate between domestic and foreign firms.

65. Brazil is accelerating the implementation of its Ecological Transformation Plan aiming to foster productivity, investment, and job-rich growth. The emission trading system approved in December 2024 is expected to stimulate growth by promoting investments in decarbonization and carbon offsetting. Brazil has made notable progress in reducing deforestation in recent years and is on track to meet its NDC targets.

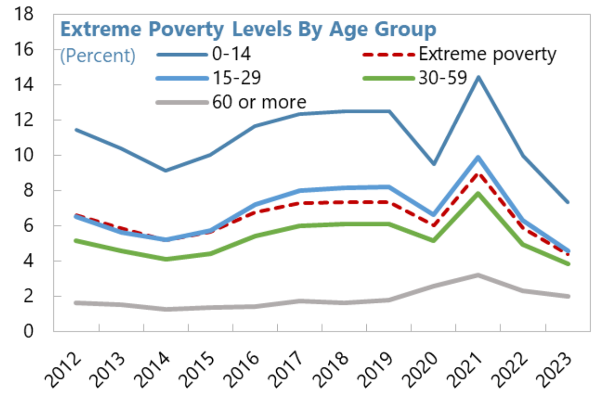
66. Staff recommends that the next Article IV consultation for Brazil be held on the standard 12-month cycle.

Figure 1. Brazil: Real Sector Developments

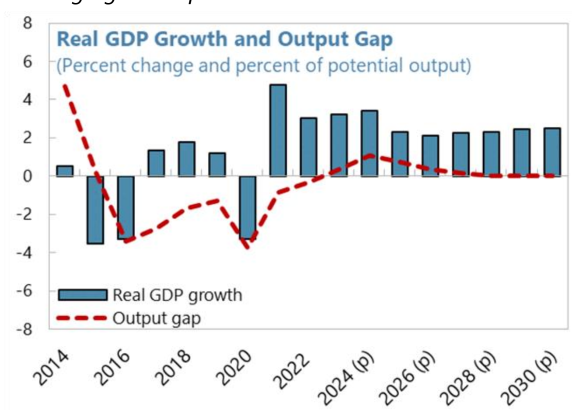
Despite progress in some regions, inequality at national level remains unchanged in 2023.



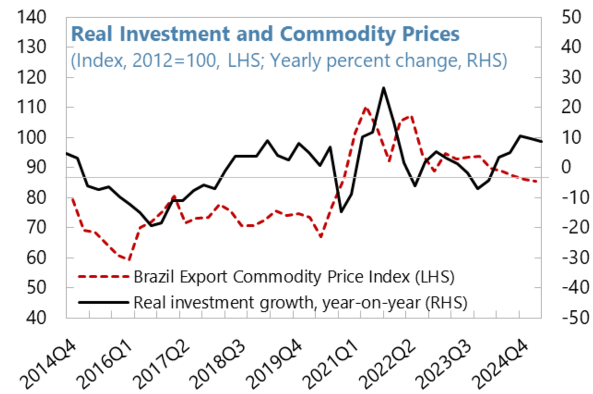
Poverty rates across most age groups, including young children, reached the lowest levels since 2012.



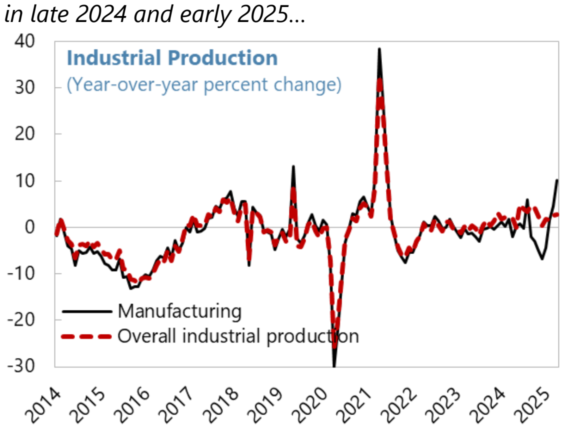
Growth is expected to moderate in 2025 before converging to 2.5 percent over the medium term.



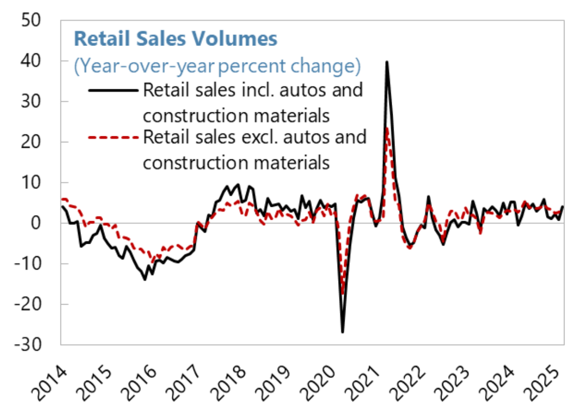
Following a sluggish 2023, real investment growth picked up in 2024.



Overall industrial production showed signs of slowdown in late 2024 and early 2025…



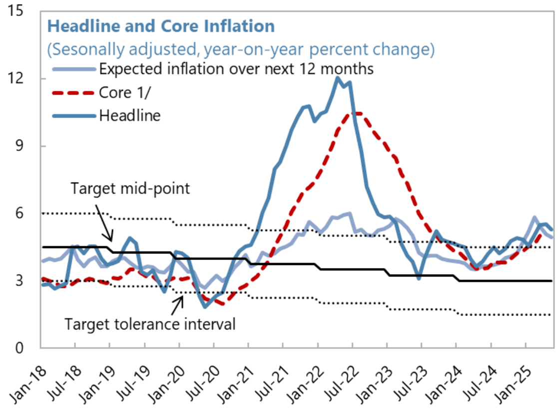
…. as have broad and core retail sales.



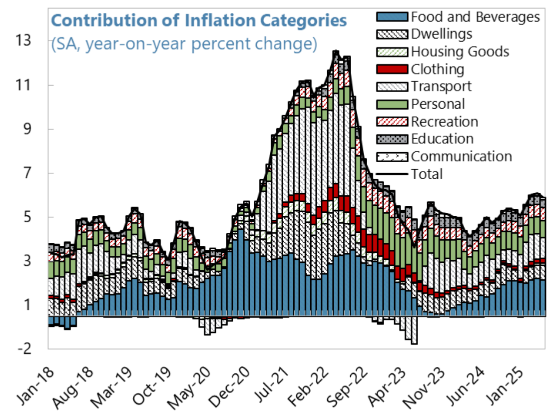
Sources: IBGE, CNI, Haver Analytics, and Fund staff calculations.

Figure 2. Brazil: Inflation Developments

Inflation picked up in 2024 and exceeded the target tolerance interval.

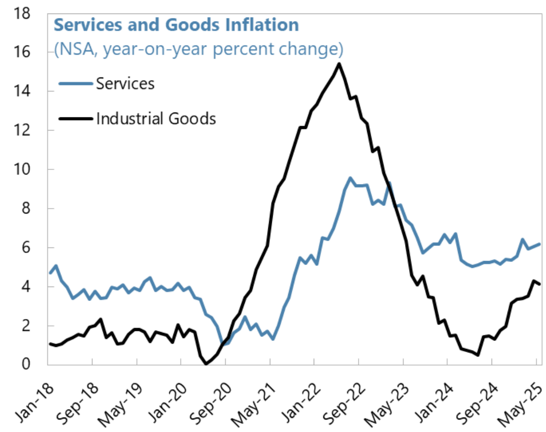


Increase in inflation reflected increases in food and transport prices.

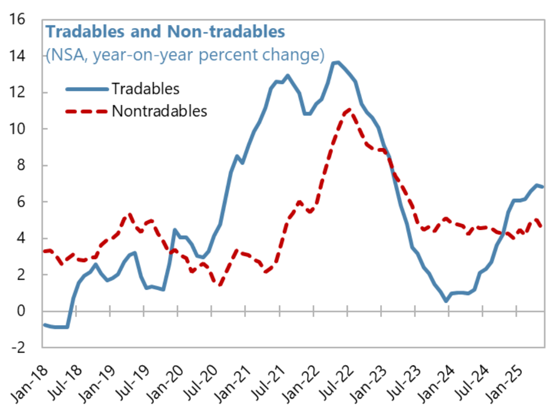


Wages and earnings continued to grow in real terms, exceeding their pre-pandemic levels.

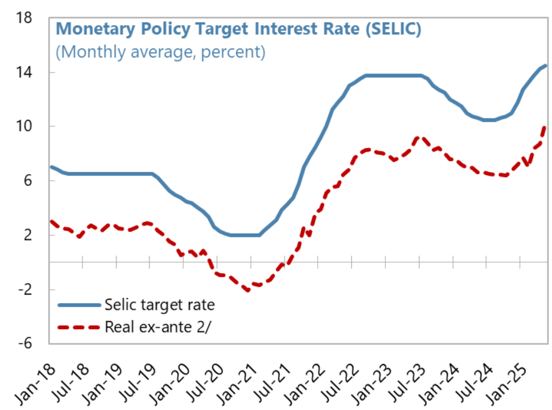
Services inflation remain elevated and industrial goods inflation has accelerated in recent period.



Tradables inflation has accelerated since 2024.



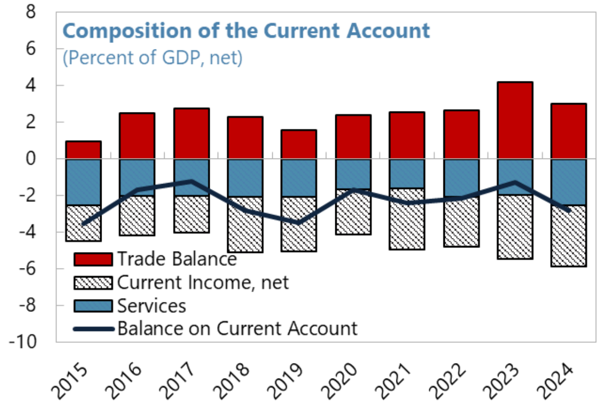
Monetary policy embarked on a new tightening cycle in September 2024.



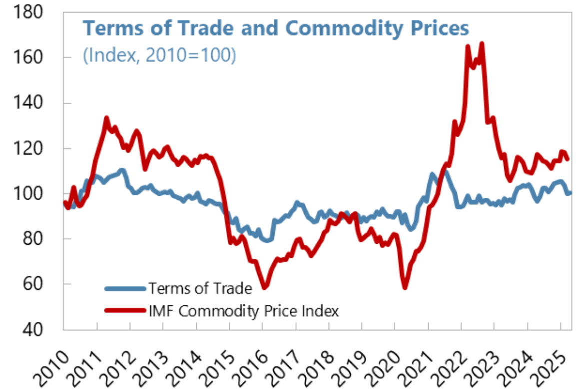
Sources: IBGE, CNI, Haver Analytics, and Fund staff calculations.
1/ Average of five measures of core inflation (IPCA DP, MS, P55, EX3 and EX0).
2/ Real ex-ante rate is calculated as the difference between nominal interest rate and projected one-year ahead inflation.

Figure 3. Brazil: External Sector Developments

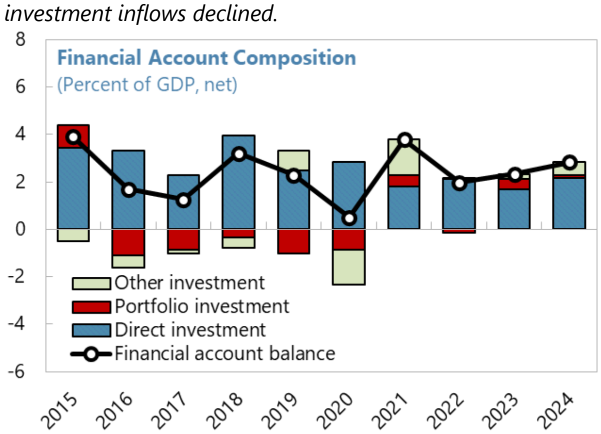
The current account deficit widened in 2024, driven by rising imports…



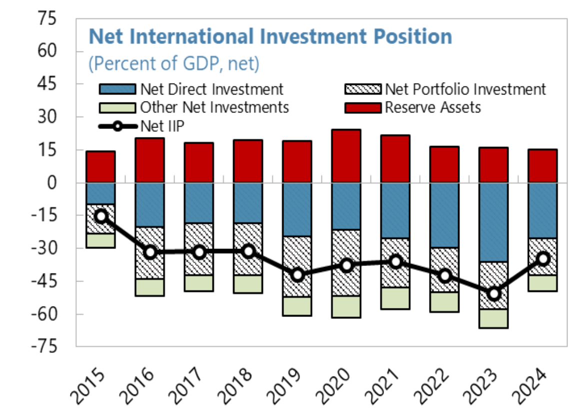
… on the back of strong economic activity and improved terms of trade.



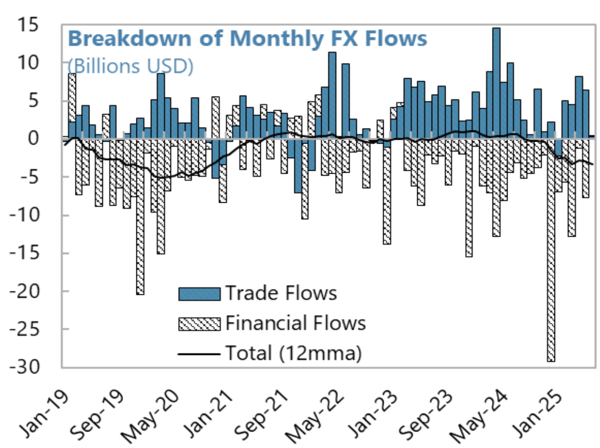
FDI inflows remained strong in 2024 while net portfolio investment inflows declined.



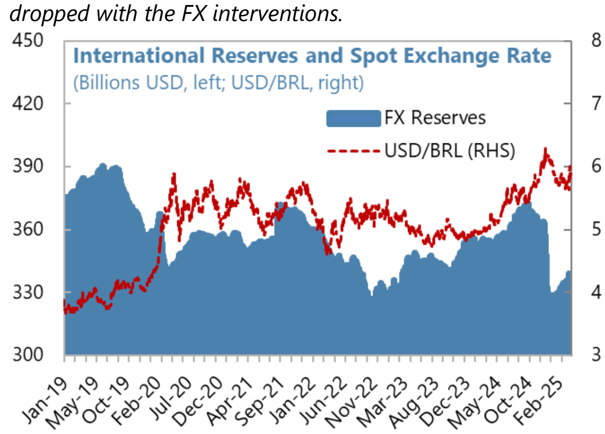
The NIIP improved, partly due to positive valuation effects.



Financial flows experienced large outflows in December 2024.



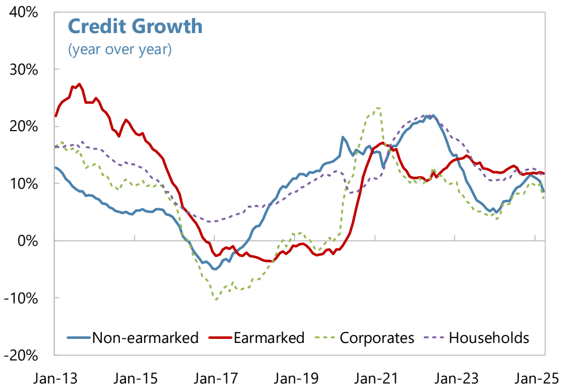
The exchange rate depreciated in 2024 and FX reserves dropped with the FX interventions.



Sources: BCB, Haver Analytics, Bloomberg, and Fund staff calculations.

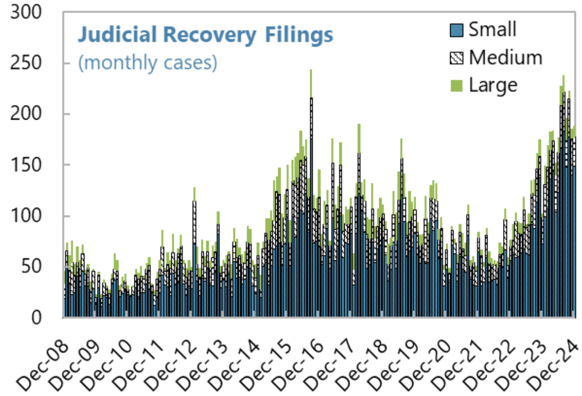
Figure 4. Brazil: Financial Sector Developments

Credit to the private sector accelerated in 2024 amid strong economic activity.

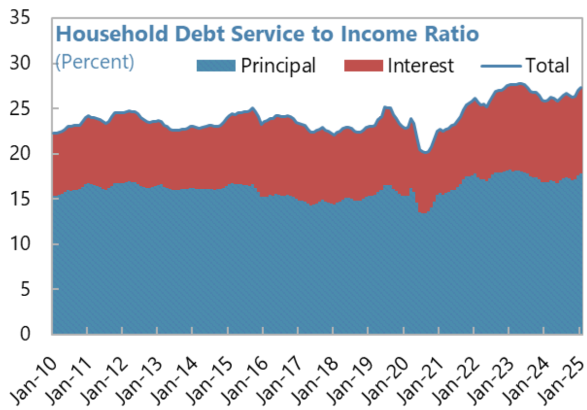


Sources: BCB

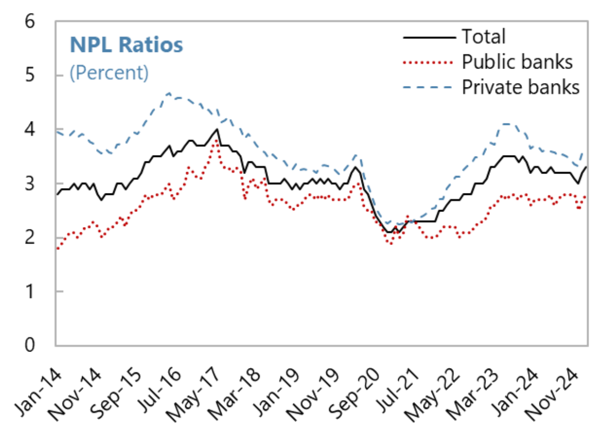
Corporate bankruptcy declined from the peak but remains higher than pre-pandemic levels.



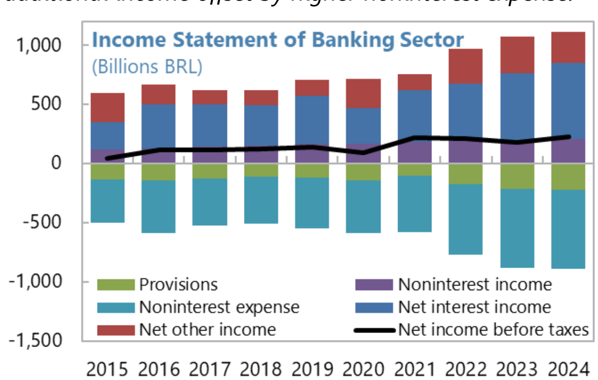
The household debt service to income ratio remains elevated.



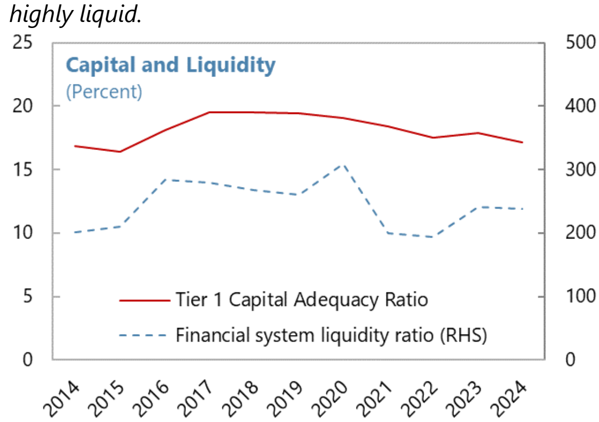
NPL ratios started to decline in mid-2023.



Banking sector profitability has been stable, with additional income offset by higher noninterest expense.



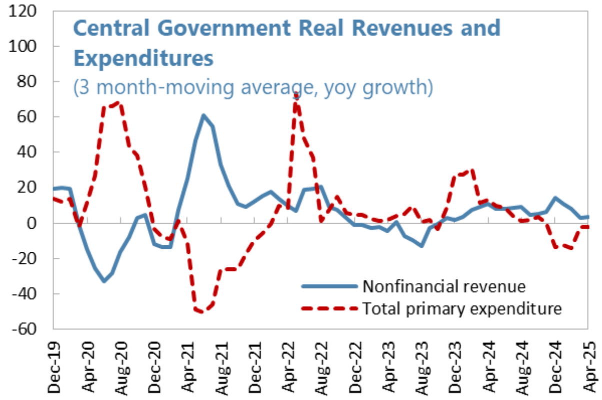
The financial system has adequate capital and remains highly liquid.



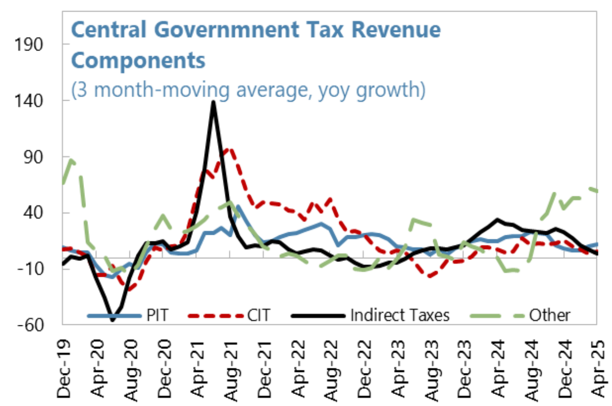
Sources: IBGE, BCB, CNI, Haver Analytics, CEIC, Serasa, and Fund staff calculations.

Figure 5. Brazil: Fiscal Sector Developments

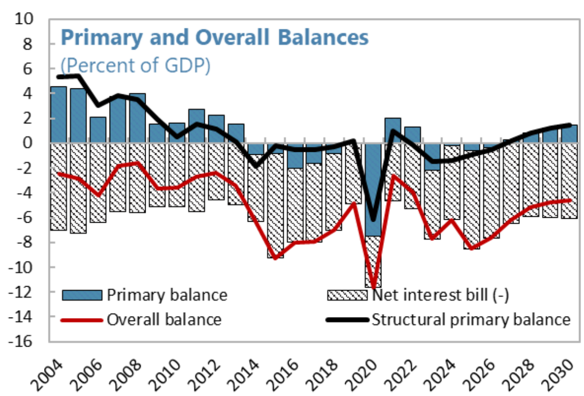
Revenue growth was strong in 2024, while the dip in primary expenditure growth in the end of 2024 reflects base effects from the payment of precatórios in the end of 2023.



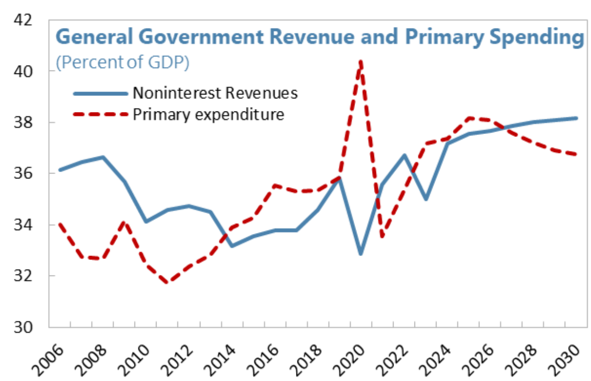
New tax measures and robust economic growth raised revenues.



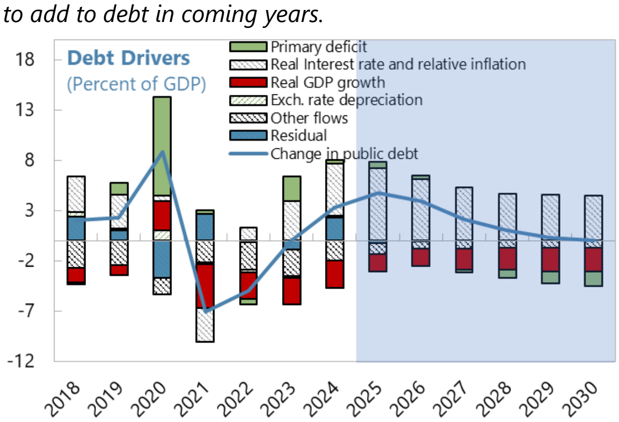
Fiscal balances rose in 2024 and are expected to rise further over the medium term.



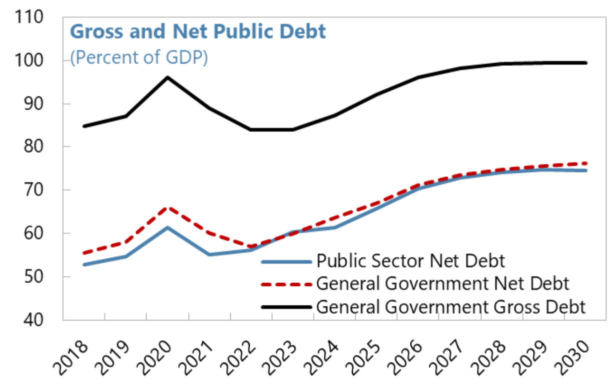
The general government expenditure-to-GDP ratio is expected to decline gradually over the medium term in line with the fiscal rule, with the revenue ratio rising further, building on the increase in 2024.



Unfavorable interest rate-growth differentials are expected to add to debt in coming years.



Gross and net debt ratios are expected to increase over the medium term and stabilize in 2030.

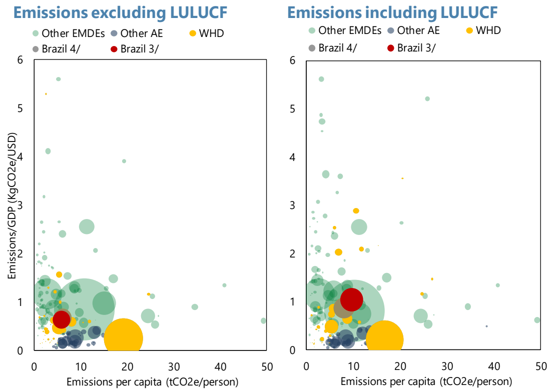


Sources: Treasury, BCB, Haver Analytics, and Fund staff calculations.

Figure 6. Brazil: Greenhouse Gas Emissions and Climate Risks

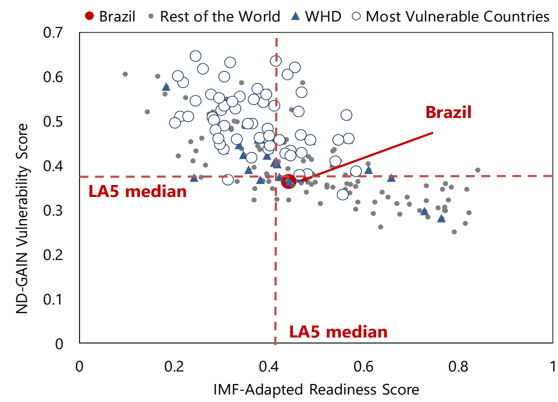
Brazil is among the world's top ten GHG emitters by volume but its emissions per capita are below that of many advanced and emerging market economies.

GHG Emissions Intensity Vs. Total Emissions (2022) 1/



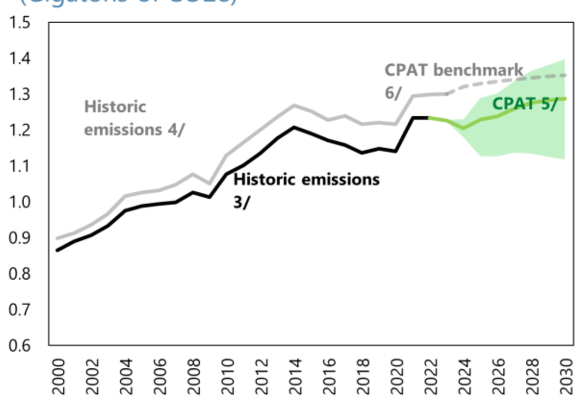
Brazil is less vulnerable to climate change than other LA5 economies due to strong adaptive capacity and economic resilience.

Climate Risks and Readiness (NDGAIN, 2022) 2/



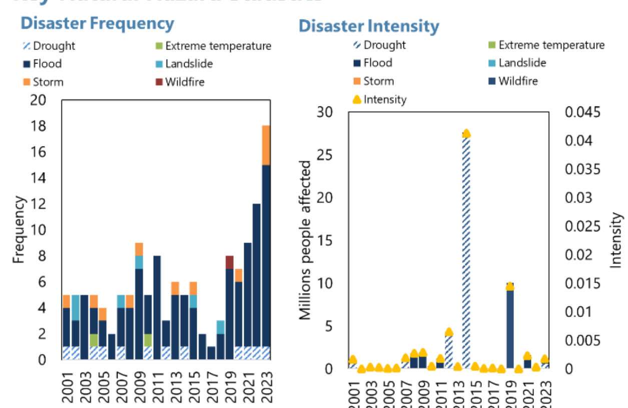
Brazil's goal of zero illegal deforestation would allow the country to meet its 2030 NDC target even with emissions from other sectors rising.

GHG Emissions Excluding LULUCF
(Gigatons of CO2e)



The most common extreme weather events in Brazil are floods, which have more than doubled in frequency recently and result in physical and human capital losses.

Key Natural Hazard Statistics



Sources: *Ministério da Ciência, Tecnologia e Inovação*, World Economic Outlook, IMF Climate Change Dashboard, UNFCCC, EDGAR, FAO, EMDAT, and IMF staff calculations using CPAT and Pondi and others (2022).
1/ The size of the bubbles represents total GHG emissions, excluding the outlier Palau.
2/ Features the Vulnerability Score, which evaluates a country's current vulnerability to climate change by considering exposure, sensitivity, and adaptive capacity. Additionally, the Readiness Score measures a country's ability to attract public and private sector investments for adaptive actions.
3/ Data obtained from *Ministério da Ciência, Tecnologia e Inovação*, used for UNFCCC submissions and formal implementation progress evaluations. CO2 equivalents calculated using Global Warming Potential values from IPCC's 5th Assessment Report (GWP AR5).
4/ Data obtained from the IMF's Climate Change dashboard, including estimates of emissions from Land Use, Land-Use Change, and Forestry (LULUCF) produced by the Food and Agriculture Organization. (FAO). FAO estimates are based on data collected in five-year increments, potentially delaying responses of emissions to policy changes. CO2 equivalents calculated using Global Warming Potential values from IPCC's 6th Assessment Report (GWP AR6).
5/ Projections from the Climate Policy Assessment Tool (CPAT) are tailored to current and recently enacted policies in Brazil, with reported ranges reflecting uncertainties from varying parameter values in CPAT.
6/ CPAT benchmark projection is indicative as it is based on uniform assumptions across all countries across the globe (i.e., no new mitigation policies, 50% reduction in explicit subsidies if applicable, energy prices based on average IMF-WB forecasts, and macroeconomic projections from the latest WEO).

Table 1. Brazil: Selected Economic Indicators 2022-30

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/	2.5
Population (2024)		Access to safe water (2022)	88.0
Total (millions)	212.6		
Annual rate of growth (percent)	0.4	Education (2023)	
Density (per sq. km.)	25.0	Adult illiteracy rate	5.4
Unemployment rate 7/	6.9	Net enrollment rates, percent in:	
		Primary education	99.4
Population characteristics (2022)		Secondary education	92.2
Life expectancy at birth (years)	76.4		
Infant mortality (per thousand live births)	12.5	Poverty rate (in percent, 2023) 2/	27.4
Income distribution		GDP, local currency (2024)	R$11,745 billion
Palma ratio (2023) 3/	3.6	GDP, dollars (2024)	US$2,171 billion
Gini coefficient (post taxes and transfers, 2024)	50.6	GDP per capita (2024)	US$10,214

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

II. Economic Indicators

	2022	2023	2024	2025 Proj.	2026 Proj.	2027 Proj.	2028 Proj.	2029 Proj.	2030 Proj.
National accounts and prices				(Annual percentage change)					
GDP at current prices	11.8	8.6	7.3	6.2	5.8	5.8	5.9	6.0	6.1
GDP at constant prices	3.0	3.2	3.4	2.3	2.1	2.2	2.3	2.4	2.5
Consumption	3.7	3.4	4.2	2.3	1.6	1.9	2.1	2.2	2.2
Investment (GFCF)	1.1	-3.0	7.3	1.3	1.4	1.8	1.9	2.1	2.1
Consumer prices (IPCA, average)	9.3	4.6	4.4	5.3	4.2	3.3	2.9	2.9	2.9
Consumer prices (IPCA, end of period)	5.8	4.6	4.8	5.2	3.8	3.0	2.9	2.9	2.9
GDP deflator	8.5	5.2	3.8	3.8	3.6	3.5	3.5	3.5	3.5
Gross domestic investment				(Percent of GDP)					
Private sector	14.3	12.0	12.8	12.6	12.5	12.4	12.4	12.3	12.3
Public sector	3.7	3.8	4.1	4.1	4.1	4.1	4.1	4.1	4.1
Gross national saving									
Private sector	19.5	21.8	19.6	22.2	21.3	19.9	18.9	18.6	18.4
Public sector	-3.6	-7.3	-5.5	-7.9	-7.0	-5.6	-4.5	-4.1	-4.0
Public sector finances									
Central government primary balance (national representation, incl. BCB) 4/	0.5	-2.4	-0.4	-0.6	-0.4	0.3	0.8	1.2	1.4
General government NLB primary balance	1.3	-2.2	-0.2	-0.6	-0.4	0.3	0.8	1.2	1.4
General government NLB structural primary balance (in percent of potential GDP)	-0.1	-1.5	-1.4	-0.9	-0.5	0.2	0.8	1.2	1.4
General government NLB	-4.0	-7.7	-6.2	-8.5	-7.6	-6.2	-5.1	-4.8	-4.6
Net public sector debt	56.1	60.4	61.5	65.7	70.2	72.6	74.0	74.7	74.3
General government gross debt, Authorities' definition	71.7	73.8	76.5	80.9	84.5	86.4	87.4	87.8	87.8
General government gross debt	83.9	84.0	87.3	91.6	95.5	97.6	98.6	99.0	98.9
Of which: Foreign currency linked	4.0	3.5	4.5	4.6	4.6	4.7	4.7	4.8	4.8
Money and credit				(Annual percentage change)					
Base money 5/	16.6	20.4	13.2	6.2	5.8	5.8	5.9	6.0	6.1
Broad money 6/	10.8	15.6	12.4	6.2	5.8	5.8	5.9	6.0	6.1
Bank loans to the private sector	14.6	7.0	11.3	9.2	7.5	6.6	5.9	6.0	6.1
Balance of payments				(Billions of U.S. dollars, unless otherwise specified)					
Trade balance	51.5	92.3	65.8	60.7	64.8	67.4	70.8	73.5	76.6
Exports	340.2	343.8	339.9	342.1	350.1	360.3	373.3	386.8	400.3
Imports	288.7	251.5	274.0	281.5	285.3	292.9	302.5	313.4	323.8
Current account	-42.2	-27.9	-61.2	-51.6	-51.4	-51.4	-51.3	-52.4	-53.0
Capital account and financial account	40.9	26.6	69.5	51.6	51.4	51.4	51.3	52.4	53.0
Foreign direct investment (net inflows)	41.3	37.3	46.8	48.4	50.5	52.4	54.4	56.5	58.7
Terms of trade (percentage change)	-7.1	2.4	-0.7	-2.0	-1.2	-1.0	-0.5	-0.6	-0.7
Merchandise exports (in US$, annual percentage change)	19.8	1.1	-1.2	0.7	2.3	2.9	3.6	3.6	3.5
Merchandise imports (in US$, annual percentage change)	19.5	-12.9	8.9	2.7	1.4	2.7	3.3	3.6	3.3
Total external debt (in percent of GDP)	34.9	33.4	33.1	34.7	35.4	35.2	34.9	34.5	34.0
Memorandum items:				(Percent, unless otherwise specified)					
Output Gap	-0.3	0.4	1.1	0.8	0.4	0.2	0.0	0.0	0.0
Current account (in percent of GDP)	-2.2	-1.3	-2.8	-2.4	-2.3	-2.2	-2.1	-2.0	-1.9
Unemployment rate 7/	9.3	8.0	6.9	7.1	7.3	7.3	7.4	7.4	7.4
Gross official reserves (in US$ billions)	325	355	330	330	330	330	330	330	330
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 threshold for upper-middle income countries (US$5.5/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 definition.
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.
7/ Unemployment rate for 2022, 2023, and 2024 shows the average of March, June, September, and December.

Table 2. Brazil: Balance of Payments, 2022-30
(In billions of US dollars, unless otherwise indicated)

	2022	2023	2024	2025 Proj.	2026	2027	2028	2029	2030
Current Account	**-42.2**	**-27.9**	**-61.2**	**-51.6**	**-51.4**	**-51.4**	**-51.3**	**-52.4**	**-53.0**
Trade balance	51.5	92.3	65.8	60.7	64.8	67.4	70.8	73.5	76.6
Exports (fob)	340.2	343.8	339.9	342.1	350.1	360.3	373.3	386.8	400.3
Imports (fob)	288.7	251.5	274.0	281.5	285.3	292.9	302.5	313.4	323.8
Income, net	-52.8	-76.9	-72.5	-57.4	-63.6	-66.0	-68.8	-71.7	-74.9
Capital and Financial Account	**40.9**	**26.6**	**69.5**	**51.6**	**51.4**	**51.4**	**51.3**	**52.4**	**53.0**
Capital account	-7.1	-11.4	-16.3	-16.3	-16.3	-16.3	-16.3	-16.3	-16.3
Financial account 1/	48.0	37.9	85.8	67.9	67.6	67.7	67.6	68.7	69.3
Direct investment, net	41.3	37.3	46.8	48.4	50.5	52.4	54.4	56.5	58.7
Assets	33.4	25.1	24.3	25.2	26.2	27.3	28.3	29.4	30.5
Liabilities	74.6	62.4	71.1	73.5	76.7	79.7	82.8	85.9	89.3
Portfolio investment, net	-2.9	9.3	3.1	3.2	3.3	1.4	-1.4	-3.3	-3.4
Financial Derivatives, net	2.0	8.0	-2.2	0.7	2.0	2.2	2.2	1.3	1.8
Other investment, net	0.4	4.7	11.6	15.6	11.8	11.7	12.3	14.2	12.2
Change in Reserve Assets, net	7.3	-21.4	26.4	0.0	0.0	0.0	0.0	0.0	0.0
Errors and Omissions	**1.2**	**1.3**	**-8.3**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Memorandum Items:									
Gross reserves (eop) 1/									
In billions of U.S. dollars	324.7	355.0	329.7	329.7	329.7	329.7	329.7	329.7	329.7
Current account (in percent of GDP)	-2.2	-1.3	-2.8	-2.4	-2.3	-2.2	-2.1	-2.0	-1.9
Trade balance (in percent of GDP)	2.6	4.2	3.0	2.8	2.9	2.9	2.9	2.8	2.8
Merchandise exports (in percent of GDP)	17.4	15.7	15.7	15.7	15.7	15.3	15.1	14.9	14.6
Merchandise imports (in percent of GDP)	14.8	11.5	12.6	12.9	12.8	12.5	12.2	12.0	11.8
Export volume (yoy change, in percent)	6.1	9.4	-0.2	4.0	4.0	3.0	3.0	3.0	3.0
Import volume (yoy change, in percent)	0.7	0.8	10.1	3.4	1.1	1.5	1.8	2.1	1.8
Export price index (yoy change, in percent)	13.7	-6.5	0.0	-3.2	-1.6	-0.1	0.6	0.6	0.5
Import price index (yoy change, in percent)	22.4	-8.8	0.7	-1.2	-0.4	0.9	1.1	1.2	1.2
Terms of trade (yoy change, in percent)	-7.1	2.4	-0.7	-2.0	-1.2	-1.0	-0.5	-0.6	-0.7
Oil price (Brent blend; US$ per barrel)	96.4	80.6	79.2	71.6	68.4	67.3	66.9	66.7	66.6
REER (annual average in percent; appreciation +)	12.2	4.9	-4.2	...	...	...	...	...	...
GDP in billions of U.S. dollars	1,952	2,191	2,171	2,184	2,237	2,352	2,473	2,605	2,745

Sources: Central Bank of Brazil; and Fund staff estimates and projections.
1/ Historical numbers include valuation changes.

Table 3. Brazil: Main Fiscal Aggregates, Federal Government National Representation, 2022-30
(In percent of GDP, unless otherwise indicated)

				Proj.					
	2022	2023	2024	2025	2026	2027	2028	2029	2030
Nonfinancial revenue	**23.0**	**21.5**	**22.8**	**23.3**	**23.3**	**23.5**	**23.6**	**23.7**	**23.7**
Revenue administered by SRF	13.8	13.2	14.4	15.0	14.7	14.7	14.7	14.6	14.6
PIT	2.9	3.0	3.2	3.2	3.1	3.1	3.1	3.1	3.1
CIT	5.3	4.7	4.9	5.2	5.1	5.1	5.1	5.1	5.1
Indirect taxes	4.7	4.6	5.3	5.5	5.3	5.3	5.3	5.3	5.3
Trade taxes	0.6	0.5	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Other	0.3	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4
Social security contributions	5.3	5.4	5.5	5.7	5.7	5.7	5.7	5.7	5.7
Other revenue	3.8	2.9	3.0	2.5	2.5	2.4	2.4	2.4	2.4
Of which: royalties and dividends from resource extraction	1.9	1.3	1.3	1.1	1.2	1.2	1.2	1.2	1.2
Unallocated measures	0.0	0.0	0.0	0.0	0.5	0.7	0.9	1.0	1.0
Total primary expenditure	**22.5**	**23.6**	**23.2**	**23.9**	**23.8**	**23.2**	**22.8**	**22.5**	**22.3**
Current expenditures	22.0	22.9	22.4	23.1	23.0	22.5	22.1	21.8	21.6
Personnel	3.4	3.3	3.1	3.3	3.3	3.3	3.2	3.1	3.1
Pension benefits	7.9	8.2	8.0	8.3	8.3	8.2	8.1	8.0	7.9
Transfer to subnational governments	4.5	4.1	4.4	4.7	4.4	4.3	4.3	4.3	4.2
Other	6.2	7.2	6.9	6.9	7.0	6.7	6.5	6.4	6.4
Capital expenditures	0.4	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Fund surpluses and statistical discrepancy	0.1	-0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Primary balance	**0.5**	**-2.4**	**-0.4**	**-0.6**	**-0.4**	**0.3**	**0.8**	**1.2**	**1.4**
Overall balance	-4.4	-8.0	-7.7	-8.6	-7.9	-6.1	-4.6	-4.3	-4.1
Memorandum items									
Federal net interest expenditure	5.0	5.6	7.3	8.0	7.5	6.4	5.4	5.5	5.5
Public sector net debt 1/	56.1	60.4	61.5	65.7	70.2	72.6	74.0	74.7	74.3
General government gross debt, Authorities' definition	71.7	73.8	76.5	80.9	84.5	86.4	87.4	87.8	87.8
General government gross debt 2/	83.9	84.0	87.3	91.6	95.5	97.6	98.6	99.0	98.9
Nominal GDP (billions of reais)	10,080	10,943	11,745	12,472	13,192	13,955	14,779	15,668	16,617

Sources: Central Bank of Brazil; Ministry of Finance; Ministry of Planning; and Fund staff estimates and projections.

1/ Includes assets, which mainly comprise international reserves, outstanding liabilities of public financial institutions to the Treasury, financial assets of public enterprises, and assets of the federal labor fund (FAT).

2/ Unlike the authorities' definition, gross general government debt comprises treasury bills at the central bank's balance sheet not used under repurchase agreements.

Table 4. Brazil: Depository Corporations and Monetary Aggregates, 2020-24

(End of period, in billions of reais)

	2020	2021	2022	2023	2024
			I. Central Bank		
Net foreign assets	**1,823.9**	**1,911.6**	**1,596.7**	**1,628.7**	**1,926.2**
Net international reserves	1,792.3	1,901.2	1,579.5	1,689.2	1,955.4
Other foreign assets (net)	31.6	10.4	17.2	-60.4	-29.2
Net domestic assets	**-1,025.0**	**-1,091.4**	**-639.9**	**-476.4**	**-621.6**
Net claims on public sector	470.5	218.2	361.3	810.6	975.6
Net credit to other depository corporations	-1,127.5	-924.8	-876.7	-1,149.6	-1,188.2
Other items (net)	-368.0	-384.8	-124.5	-137.4	-409.0
Base money	**798.9**	**820.3**	**956.8**	**1,152.3**	**1,304.6**
Currency issued	370.4	339.0	342.3	341.6	355.9
Liabilities to other depository corporations	418.4	475.5	605.9	747.6	854.5
Reserve deposits	61.1	70.2	77.3	81.1	95.4
Liabilities to other sectors	10.1	5.8	8.6	63.1	94.3
			II. Depository Corporations 1/		
Net foreign assets	**1,297.3**	**1,334.0**	**1,087.1**	**1,096.6**	**1,358.9**
Net international reserves	1,792.3	1,901.2	1,579.5	1,689.2	1,955.4
Other foreign assets (net)	-495.0	-567.2	-492.4	-592.6	-596.5
Net domestic assets	**6,598.1**	**7,250.2**	**8,397.7**	**9,869.5**	**10,968.6**
Net claims on public sector	4,288.4	4,192.6	4,608.5	5,559.9	6,002.2
Credit to other financial corporations	377.8	492.9	582.8	623.3	786.1
Credit to private sector	5,227.5	6,200.8	7,111.2	7,778.0	8,908.8
Of which: loans to private sector	3,753.4	4,414.7	5,051.6	5,408.2	6,027.3
Other items (net)	3,514.9	3,834.1	4,103.2	4,319.3	4,996.2
Capital	1,492.0	1,625.0	1,475.4	1,701.6	2,144.5
Other liabilities excluded from broad money	2,022.9	2,209.1	2,627.8	2,617.7	2,851.7
Broad money (M2) 2/	**7,895.4**	**8,584.2**	**9,490.9**	**10,966.7**	**12,326.7**
Currency in circulation	308.9	286.0	293.2	288.8	304.2
Demand deposits	328.6	363.9	349.3	434.7	464.4
Quasi-money liabilities	7,257.9	7,934.4	8,848.4	10,243.3	11,558.0
			(Percent of GDP)		
Base money	10.5	9.1	9.5	10.5	11.1
Broad money (M2)	103.8	95.3	94.2	100.2	105.0
Financial sector credit to the private sector	68.7	68.8	70.6	71.1	75.9
Of which: bank loans to private sector	49.4	49.1	50.3	49.6	51.4
			III. Other Financial Corporations		
Net foreign assets	**35.5**	**64.6**	**45.9**	**54.7**	**68.7**
Net domestic assets	**2,193.7**	**2,330.4**	**2,570.9**	**2,812.3**	**3,048.3**
Net claims on public sector	325.7	365.7	430.4	464.5	499.5
Credit to private sector	1,723.3	1,788.9	1,865.6	2,140.4	2,254.7
Of which: loans to private sector	142.3	228.6	247.1	258.3	270.9
Claims on depository corporations	785.1	889.0	929.5	1,043.8	1,153.0
Other items (net)	-642.9	-715.6	-656.4	-838.7	-862.3
Memorandum item:					
GDP (in billions of reais)	7,610	9,012	10,080	10,943	11,745

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

1/ Includes the Central Bank of Brazil, commercial banks, multiple banks, financial (money market) investment funds, Banco do Brasil, Federal Savings Bank, state savings bank, investment banks, National Bank for Economic and Social Development (BNDES), state development banks, finance and investment companies, housing credit companies, and mortgage companies.

2/ M2 includes the liabilities to other financial corporations, state and municipal governments, nonfinancial public enterprises, other nonfinanical corporations, and other resident sectors.

Table 5. Brazil: Medium-Term Macroeconomic Framework, 2022-30

	2022	2023	2024	Proj. 2025	2026	2027	2028	2029	2030
MACROECONOMIC FRAMEWORK				(Percent of GDP, unless otherwise specified)					
GDP growth at constant prices (percent)	3.0	3.2	3.4	2.3	2.1	2.2	2.3	2.4	2.5
Consumer prices (IPCA, end of period, percent)	5.8	4.6	4.8	5.2	3.8	3.0	2.9	2.9	2.9
Gross domestic investment	18.1	15.8	16.9	16.7	16.6	16.6	16.5	16.5	16.4
Private sector	14.3	12.0	12.8	12.6	12.5	12.4	12.4	12.3	12.3
Public sector	3.7	3.8	4.1	4.1	4.1	4.1	4.1	4.1	4.1
Gross domestic saving	15.9	14.5	14.1	14.4	14.3	14.4	14.4	14.4	14.5
Private sector	19.5	21.8	19.6	22.2	21.3	19.9	18.9	18.6	18.4
Public sector	-3.6	-7.3	-5.5	-7.9	-7.0	-5.6	-4.5	-4.1	-4.0
External current account balance	-2.2	-1.3	-2.8	-2.4	-2.3	-2.2	-2.1	-2.0	-1.9
Central government primary balance	0.5	-2.4	-0.4	-0.6	-0.4	0.3	0.8	1.2	1.4
General government NLB primary balance	1.3	-2.2	-0.2	-0.6	-0.4	0.3	0.8	1.2	1.4
General government NLB	-4.0	-7.7	-6.2	-8.5	-7.6	-6.2	-5.1	-4.8	-4.6
Public sector net debt 1/	56.1	60.4	61.5	65.7	70.2	72.6	74.0	74.7	74.3
General government gross debt, Authorities' definition	71.7	73.8	76.5	80.9	84.5	86.4	87.4	87.8	87.8
General government gross debt 2/	83.9	84.0	87.3	91.6	95.5	97.6	98.6	99.0	98.9
EXTERNAL DEBT 3/ 4/				(Billions of U.S. dollars)					
Total external debt	**681.1**	**732.6**	**718.9**	**757.0**	**792.8**	**827.9**	**862.8**	**898.5**	**932.9**
Medium- and long-term	613.3	652.2	634.6	668.3	699.9	730.8	761.6	793.2	823.6
Short-term	67.8	80.5	84.3	88.8	93.0	97.1	101.2	105.3	109.4
Nonfinancial public sector	197.3	222.4	213.7	225.0	235.6	246.1	256.4	267.1	277.3
Public sector banks	38.9	41.0	42.2	44.4	46.5	48.6	50.6	52.7	54.7
Private sector	444.8	469.3	463.0	485.4	507.6	530.0	552.8	576.4	600.1
Medium- and long-term external debt service	**88.9**	**112.3**	**118.0**	**128.1**	**119.6**	**126.5**	**132.7**	**138.8**	**144.7**
Amortization	70.3	84.7	87.8	98.1	90.2	95.5	100.3	104.9	109.4
Interest	18.6	27.6	30.1	30.0	29.4	31.0	32.4	33.9	35.3
				(Percent of GDP)					
Total external debt	**34.9**	**33.4**	**33.1**	**34.7**	**35.4**	**35.2**	**34.9**	**34.5**	**34.0**
Medium- and long-term	31.4	29.8	29.2	30.6	31.3	31.1	30.8	30.4	30.0
Short-term	3.5	3.7	3.9	4.1	4.2	4.1	4.1	4.0	4.0
Nonfinancial public sector	10.1	10.1	9.8	10.3	10.5	10.5	10.4	10.3	10.1
Public sector banks	2.0	1.9	1.9	2.0	2.1	2.1	2.0	2.0	2.0
Private sector	22.8	21.4	21.3	22.2	22.7	22.5	22.4	22.1	21.9
				(Percent of gross international reserves)					
Medium- and long-term external debt service	**27.4**	**31.6**	**35.8**	**38.8**	**36.3**	**38.4**	**40.3**	**42.1**	**43.9**
Amortization	21.6	23.9	26.6	29.7	27.3	29.0	30.4	31.8	33.2
Interest	5.7	7.8	9.1	9.1	8.9	9.4	9.8	10.3	10.7
Short-term debt	20.9	22.7	25.6	26.9	28.2	29.4	30.7	31.9	33.2
MEMORANDUM ITEMS:									
Gross reserves (eop) 4/									
In billions of U.S. dollars	324.7	355.0	329.7	329.7	329.7	329.7	329.7	329.7	329.7
In percent of external short-term debt (maturity basis)	479.1	441.1	391.2	371.5	354.7	339.7	326.0	313.0	301.4
In months of prospective GNFS imports	11.5	11.3	10.3	10.3	10.2	10.0	9.7	9.4	9.1
In percent of external short-term debt (residual maturity)	212.9	210.9	180.8	184.3	175.0	167.1	160.0	153.5	147.4
Short-term debt in percent of total external debt	10.0	11.0	11.7	11.7	11.7	11.7	11.7	11.7	11.7
Intercompany debt (in billions of U.S. dollars)	256.8	265.0	256.4	267.8	279.6	292.0	304.8	318.1	331.9
In percent of GDP	13.2	12.1	11.8	12.3	12.5	12.4	12.3	12.2	12.1
GDP (billion US$)	1,952	2,191	2,171	2,184	2,237	2,352	2,473	2,605	2,745

Sources: Central Bank of Brazil; and Fund staff estimates and projections.

1/ Includes assets, which mainly comprise international reserves, outstanding liabilities of public financial institutions to the Treasury, financial assets of public enterprises, and assets of the federal labor fund (FAT).

2/ Unlike the authorities' definition, gross general government debt comprises treasury bills at the central bank's balance sheet not used under repurchase agreements.

3/ Includes intercompany debt.

4/ Historical numbers include valuation changes.

Table 6. Brazil: External Vulnerability, 2022-30
(In billions of U.S. dollars, unless otherwise indicated)

	2022	2023	2024	2025	2026	Proj. 2027	2028	2029	2030
Trade									
Exports of GNFS (12-month percent change, US$)	20.6	2.3	-0.2	0.7	2.3	2.9	3.6	3.6	3.5
Imports of GNFS (12-month percent change, US$)	23.2	-8.0	10.8	2.2	0.7	2.4	3.0	3.3	3.1
Terms of trade (12-month percent change)	-7.1	2.4	-0.7	-2.0	-1.2	-1.0	-0.5	-0.6	-0.7
Current account									
Current account	-42.2	-27.9	-61.2	-51.6	-51.4	-51.4	-51.3	-52.4	-53.0
In percent of GDP	-2.2	-1.3	-2.8	-2.4	-2.3	-2.2	-2.1	-2.0	-1.9
Capital and financial account	40.9	26.6	69.5	51.6	51.4	51.4	51.3	52.4	53.0
Capital Account	-7.1	-11.4	-16.3	-16.3	-16.3	-16.3	-16.3	-16.3	-16.3
Financial Account	48.0	37.9	85.8	67.9	67.6	67.7	67.6	68.7	69.3
Portfolio investment (net)	-2.9	9.3	3.1	3.2	3.3	1.4	-1.4	-3.3	-3.4
Foreign direct investment (net)	41.3	37.3	46.8	48.4	50.5	52.4	54.4	56.5	58.7
Of which: intercompany loans (net)	16.3	9.3	11.0	11.4	11.9	12.4	12.9	13.3	13.9
Short-term external liabilities of commercial banks	44.7	57.6	58.8	64.9	67.8	40.6	39.7	39.1	38.7
External debt									
Total external debt 1/	681.1	732.6	718.9	757.0	792.8	827.9	862.8	898.5	932.9
In percent of gross reserves	209.8	206.4	218.0	229.6	240.5	251.1	261.7	272.5	282.9
Amortization of external MLT debt (in percent of GNFS exports)	20.7	24.6	25.8	28.7	25.8	26.5	26.9	27.1	27.3
External interest payments (in percent of GNFS exports)	5.5	8.0	8.9	8.8	8.4	8.6	8.7	8.8	8.8
Reserves									
Gross reserves	324.7	355.0	329.7	329.7	329.7	329.7	329.7	329.7	329.7
In months of prospective GNFS imports	11.5	11.3	10.3	10.3	10.2	10.0	9.7	9.4	9.1
In percent of broad money (M2)	17.8	15.7	16.6	14.7	14.0	13.4	12.7	12.1	11.5
In percent of short-term external debt (maturity basis)	212.9	210.9	180.8	184.3	175.0	167.1	160.0	153.5	…
Exchange rate									
REER (annual average in percent; appreciation +)	12.2	4.9	-4.2	…	…	…	…	…	…

Sources: Central Bank of Brazil; Bloomberg; and Fund staff estimates.
1/ Includes intercompany loans.

Table 7. Brazil: General Government, GFSM 2014, 2022-2030
(In percent of GDP, unless otherwise indicated)

	2022	2023	2024	2025	2026	2027	2028	2029	2030
				Proj.					
Revenue	**39.5**	**37.6**	**39.5**	**39.8**	**39.8**	**39.7**	**39.8**	**39.8**	**39.8**
Taxes	24.7	23.7	25.6	26.2	25.9	25.9	25.9	25.9	25.9
Income, profits and capital gains	9.0	8.6	9.1	9.4	9.3	9.3	9.3	9.3	9.3
Payroll and workforce	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Property taxes	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
Goods and services	13.2	12.5	13.9	14.0	13.9	14.0	14.0	14.0	14.0
International trade and transactions	0.6	0.5	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Social contributions	7.5	7.4	7.5	7.8	7.8	7.8	7.8	7.8	7.8
Social security contributions (RGPS)	5.1	5.2	5.3	5.7	5.7	5.7	5.7	5.7	5.7
Other social contributions (RPPS)	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1
Other revenue	7.3	6.5	6.4	5.8	5.6	5.4	5.2	5.2	5.1
Interest	2.8	2.6	2.3	2.3	2.1	1.9	1.7	1.7	1.7
Other	4.5	3.9	4.1	3.5	3.5	3.5	3.5	3.4	3.4
Total expenditure	**43.4**	**45.3**	**45.7**	**48.3**	**47.4**	**46.0**	**44.9**	**44.6**	**44.5**
Expenses	43.0	44.9	45.0	47.7	46.8	45.3	44.2	44.0	43.8
Compensation of employees	10.6	10.8	10.8	11.0	11.0	10.9	10.9	10.8	10.8
Use of goods and services	5.4	5.6	5.8	6.0	6.0	5.9	5.9	5.9	5.8
Consumption of fixed capital	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Interest	8.0	8.1	8.3	10.2	9.3	8.4	7.7	7.7	7.7
Subsidies and grants	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Social benefits	15.2	16.0	15.9	16.2	16.4	16.2	15.9	15.7	15.7
Social security	8.6	8.9	8.8	9.0	9.1	9.0	8.8	8.7	8.6
Social assistance	2.1	2.5	2.6	2.6	2.7	2.6	2.6	2.5	2.5
Other social benefits (RPPS)	4.5	4.6	4.5	4.6	4.6	4.6	4.5	4.5	4.5
Other	2.0	2.5	2.4	2.5	2.2	2.1	2.0	2.0	1.9
Net investment in non-financial assets	0.4	0.4	0.6	0.6	0.6	0.7	0.7	0.7	0.7
Net lending and borrowing	**-4.0**	**-7.7**	**-6.2**	**-8.5**	**-7.6**	**-6.2**	**-5.1**	**-4.8**	**-4.6**
Methodological & statistical discrepancy	0.6	1.1	2.2						
Overall balance (national representation, includes BCB)	-4.6	-8.8	-8.4						
Net lending and borrowing primary	**1.3**	**-2.2**	**-0.2**	**-0.6**	**-0.4**	**0.3**	**0.8**	**1.2**	**1.4**
Methodological & statistical discrepancy	0.1	0.1	0.1						
Primary balance (national representation, includes BCB)	1.2	-2.3	-0.3						

Sources: Treasury; and Fund staff estimates and projections.

Table 8. Brazil: States, GFSM 2014, 2022-2030
(In percent of GDP, unless otherwise indicated)

				Proj.					
	2022	2023	2024	2025	2026	2027	2028	2029	2030
Revenue	**13.4**	**12.4**	**13.0**	**13.0**	**12.9**	**12.8**	**12.7**	**12.7**	**12.7**
Taxes	8.0	7.6	8.0	8.1	8.1	8.1	8.1	8.1	8.1
Property taxes	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Goods and services	7.2	6.7	7.2	7.2	7.2	7.2	7.2	7.2	7.2
of which: ICMS	6.9	6.4	6.9						
Social contributions	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Grants and transfers	3.2	2.8	3.0	3.1	3.0	2.9	2.9	2.9	2.8
Other revenue	1.0	1.0	1.0	0.8	0.8	0.8	0.8	0.8	0.8
Total expenditure	**13.6**	**13.4**	**13.5**	**13.9**	**13.7**	**13.6**	**13.5**	**13.5**	**13.4**
Expenses	13.2	13.2	13.3	13.7	13.6	13.4	13.3	13.3	13.3
Compensation of employees	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
Wages	3.4	3.5	3.6	3.6	3.6	3.5	3.5	3.5	3.5
Social contributions	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Use of goods and services	1.8	1.7	1.8	1.9	1.9	1.9	1.9	1.9	1.9
Consumption of fixed capital	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Interest	0.9	1.1	0.9	0.9	0.9	0.9	0.8	0.8	0.8
Grants	2.6	2.3	2.5	2.6	2.5	2.4	2.4	2.4	2.4
Social benefits	2.4	2.4	2.4	2.5	2.5	2.5	2.5	2.5	2.5
Social assistance	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Other social benefits (RPPS)	2.3	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
Other	0.7	0.7	0.8	0.9	0.9	0.9	0.9	0.9	0.9
Non-financial assets transactions	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Net lending and borrowing	**-0.2**	**-0.9**	**-0.5**	**-0.9**	**-0.9**	**-0.8**	**-0.8**	**-0.8**	**-0.7**
Methodological and statistical discrepancy (net interest)	0.1	-0.3	0.0						
Overall balance (national representation)	-0.3	-0.6	-0.5						
Net lending and borrowing primary	**0.5**	**-0.1**	**0.2**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Methodological and statistical discrepancy	0.1	-0.3	0.0						
Primary balance (national representation)	0.4	0.3	0.2						

Sources: Treasury; and Fund staff estimates and projections.

Table 9. Brazil: Municipalities, GFSM 2014, 2022-2030
(In percent of GDP, unless otherwise indicated)

	2022	2023	2024	Proj. 2025	2026	2027	2028	2029	2030
Revenue	**10.4**	**10.4**	**11.0**	**11.2**	**10.8**	**10.6**	**10.6**	**10.5**	**10.4**
Taxes	2.0	2.0	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Property taxes	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Goods and services	1.2	1.3	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Social contributions	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Grants and transfers	7.2	6.9	7.4	7.8	7.4	7.3	7.2	7.1	7.1
Other revenue	0.7	0.9	0.9	0.7	0.7	0.7	0.7	0.7	0.7
Total expenditure	**9.7**	**10.3**	**11.0**	**11.2**	**10.8**	**10.6**	**10.6**	**10.5**	**10.4**
Expenses	9.4	9.8	10.4	10.6	10.2	10.0	9.9	9.9	9.8
Compensation of employees	4.2	4.4	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Wages	3.5	3.7	3.8	3.8	3.8	3.8	3.8	3.8	3.8
Social contributions	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Use of goods and services	2.9	3.1	3.3	3.4	3.3	3.3	3.3	3.2	3.2
Consumption of fixed capital	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Interest	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Social benefits (RPPS)	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Other	0.8	0.9	1.0	1.1	0.7	0.6	0.6	0.5	0.5
Non-financial assets transactions	0.3	0.4	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Net lending and borrowing	**0.7**	**0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Methodological and statistical discrepancy (net interest)	0.5	0.2	0.3						
Overall balance (national representation)	0.2	-0.1	-0.3						
Net lending and borrowing primary	**0.4**	**-0.2**	**-0.2**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Methodological and statistical discrepancy	0.2	-0.2	-0.1						
Primary balance (national representation)	0.3	-0.1	-0.2						

Sources: Treasury; and Fund staff estimates and projections.

Table 10. Brazil: Financial Soundness Indicators, 2018-24

(In percent)

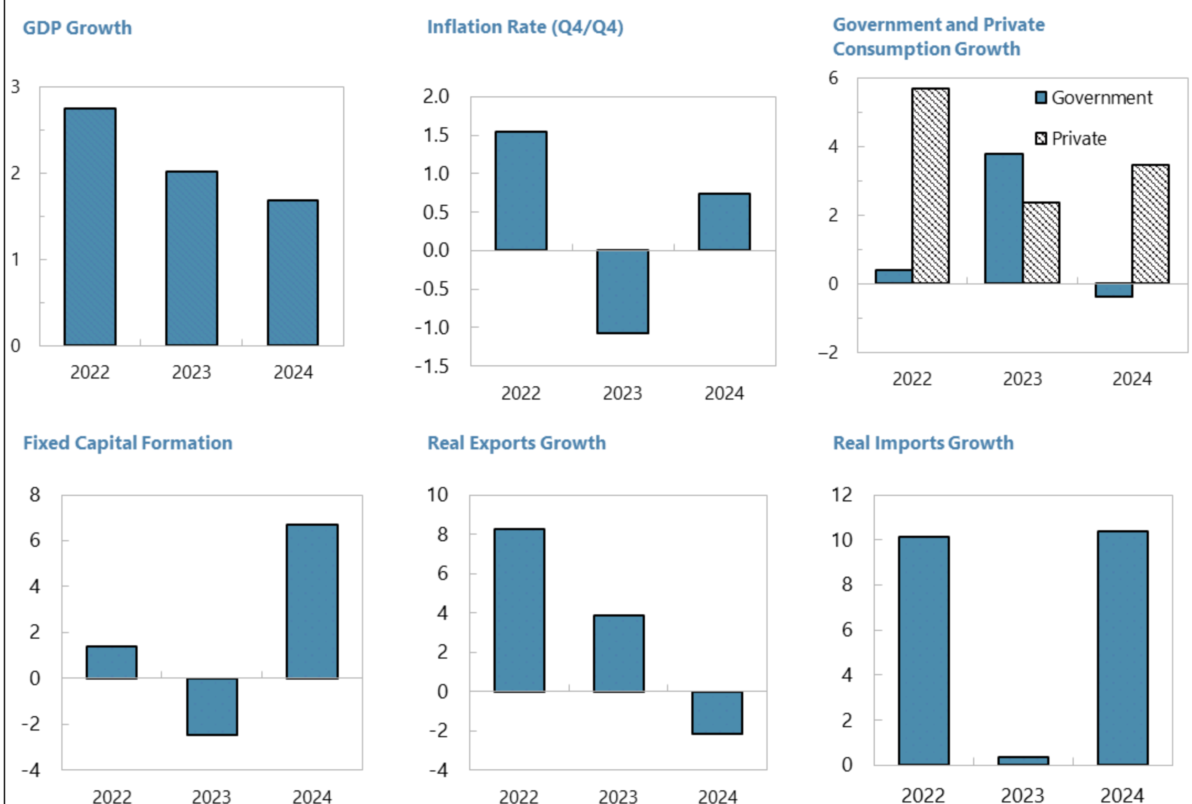
	2018	2019	2020	2021	2022	2023	2024
Capital Adequacy							
Regulatory capital to risk-weighted assets	19.5	19.4	19.1	18.4	17.5	17.9	17.1
Regulatory Tier 1 capital to risk-weighted assets	15.6	16.0	16.4	16.0	15.3	15.8	15.4
Common Equity Tier 1 capital to risk-weighted assets	14.5	14.9	15.2	14.8	14.2	14.8	14.3
Tier 1 capital to assets	9.1	9.6	8.7	8.8	8.8	8.9	8.2
Gross asset position in financial derivatives to capital	10.4	11.8	18.7	15.5	17.8	12.1	20.4
Gross liability position in financial derivatives to capital	12.0	14.1	20.5	15.8	16.8	12.0	18.9
Non-performing loans net of provisions to capital	-12.6	-12.4	-16.6	-13.3	-13.7	-11.7	-10.6
Asset Quality							
Non-performing loans to total gross loans	2.6	2.7	1.9	2.1	2.6	2.8	2.7
Provisions to Non-performing loans	221.8	218.0	314.0	247.4	210.7	190.1	183.2
Earnings and Profitability							
Return on assets	2.2	2.0	1.9	2.4	2.1	1.6	1.8
Return on equity	12.6	15.8	11.7	14.9	15.3	13.7	15.3
Non-interest expenses to gross income	51.9	55.5	51.6	52.0	50.1	53.0	51.6
Interest margin to gross income	63.0	62.1	63.4	65.4	65.4	67.3	75.9
Liquidity							
Liquid assets to short-term liabilities	268.1	260.8	308.5	199.7	194.5	240.5	238.4
Liquid assets to total assets	14.2	13.6	16.3	12.7	11.7	13.8	13.4
Liquidity coverage ratio	216.7	221.5	229.0	173.9	169.8	184.6	188.9
Net stable funding ratio	121.7	123.3	124.6	119.6	119.1	120.3	117.6
Net open position in foreign exchange to capital	0.5	0.2	0.6	2.3	3.3	2.0	3.7
Real Estate Markets							
Residential Real Estate Prices	1.5	5.0	8.9	6.1	1.7	4.8	7.1
Commercial Real Estate Prices	-2.6	-2.6	-1.2	0.0	-0.4	-0.6	0.4

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

Annex I. Growth Overperformance: Insights from Forecast Errors, 2022-24[1]

1. **Brazil's economic growth has performed remarkably over the past three years, repeatedly surprising on the upside.** During 2022-24, real GDP growth averaged 3.2 percent, outperforming forecasts by IMF staff at the start of each year by an average of 2.0 percentage points. Upside growth surprises were somewhat smaller than those of other economies in the region and the rest of the world in 2022, but greater during 2023 and 2024. Strong consumption supported by fiscal stimulus drove the expansion from the demand side, with stronger-than-expected growth in both government and private consumption. Fixed capital formation growth surprised on the upside in 2022 and 2024, despite elevated interest rates, as business investment responded to strong product demand. Brazil's real exports outperformed expectations in 2022-23 amid record agricultural and hydrocarbon supply. The surprising strength in aggregate demand was associated with inflation somewhat above expected levels, except in 2023 when the *real* appreciated and food price pressures eased.

Figure 1. Brazil: Performance in 2022-24 Compared with Projections
(Percentage point deviation from January WEO projection of each year)

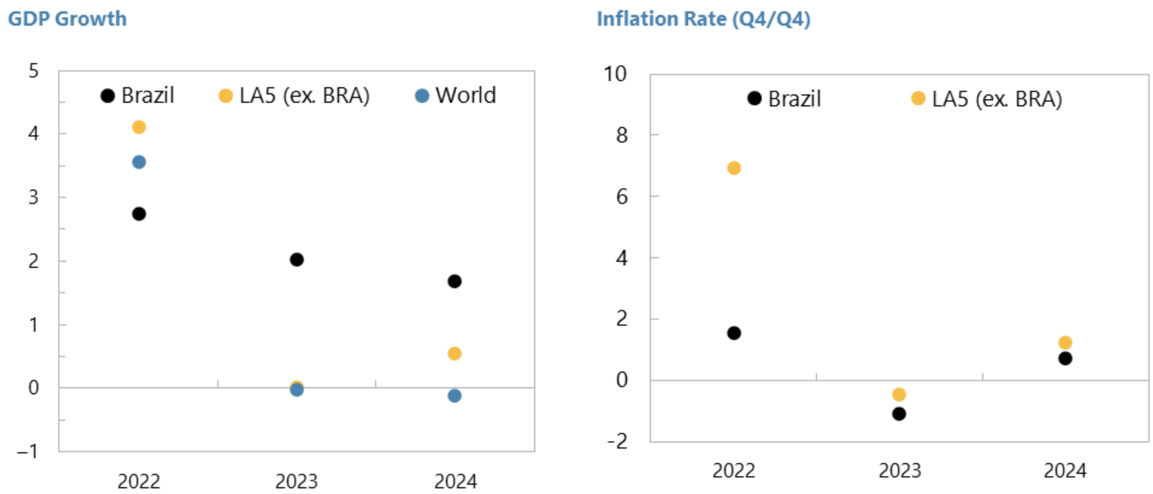


Source: Fund staff calculations.

[1] This Annex was prepared by Daniel Leigh (WHD).

Figure 2. Brazil: Performance in 2022-24 Compared with Projections

(Percentage point deviation from January WEO projection of each year)



Source: Fund staff calculations.

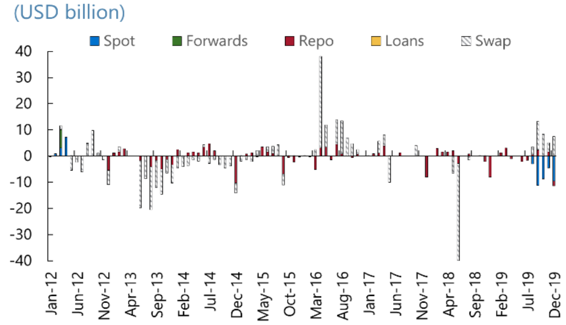
Annex II. FX Intervention in 2024[1]

1. The Brazilian *real* (BRL) depreciated sharply in 2024 before partially recovering in early 2025. The nominal exchange rate depreciation against the US dollar reached around 22 percent by December 2024 at a twelve-month rate, with about half of the movement concentrated in the last three months of the year. The currency's rebound in 2025 reflected domestic monetary policy tightening and a moderation in domestic risk perceptions.

2. The BCB intervened in the FX market in 2024, including through large spot interventions in December. Spot interventions in December amounted to around USD 21.6 billion, equivalent to about 6 percent of foreign reserves. Earlier in the year, smaller amounts of FX market intervention occurred through different instruments, including to address specific spikes in market demand linked to the redemption of a dollar-linked Brazil Treasury bond in April[2] and rebalancing of the MSCI index in August, which resulted in increased investment in US-listed Brazilian stocks. These transactions included: (i) FX swaps of US$1 billion and US$1.5 billion in April and August, respectively; (ii) a spot invention of US$1.5 billion in August; and (iii) repo lines of US$ 15 billion in November and December.

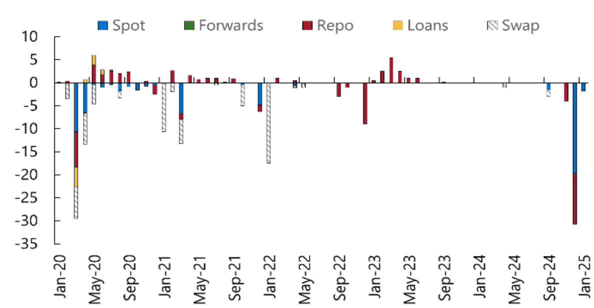
3. In recent years the BCB had intervened through the swap market, rather than the spot market, without a direct effect on FX reserves. For example, during the first wave of the pandemic in March-June 2020, the BCB increased the outstanding stock of FX swaps by US$18 billion and undertook US$19 billion in spot intervention. In early 2021, when the second pandemic wave hit and fiscal risks moved into focus during the budget discussions, the stock of FX swaps rose by a further US$18 billion.

BCB FX Intervention
(USD billion)



Source: BCB.

BCB FX Intervention
(USD billion)



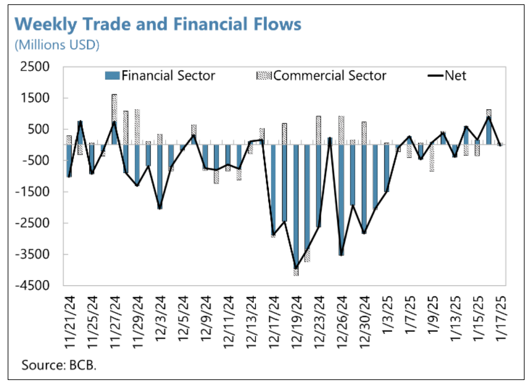
Source: BCB.

4. Unusually high financial outflows in late 2024 and excessive market volatility prompted the BCB to intervene in the spot market to smooth market functioning.

[1] This Annex was prepared by Swarnali Ahmed Hannan (WHD) and Yiqun Wu (SPR).

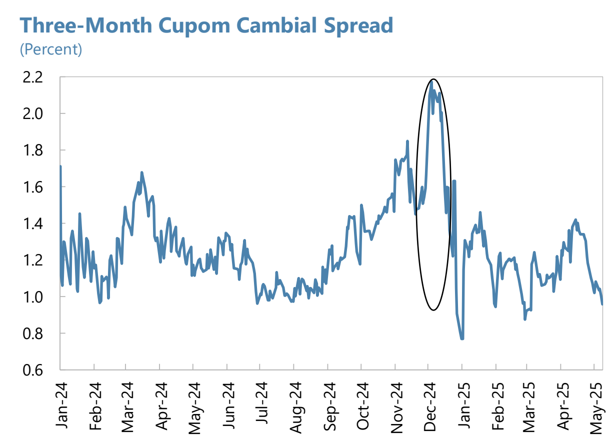
[2] This transaction related to Brazilian government (NTN-A) bonds equivalent to US$3.7 billion, which came due on April 15, 2024. The notes were sold in 1997 and never used again.

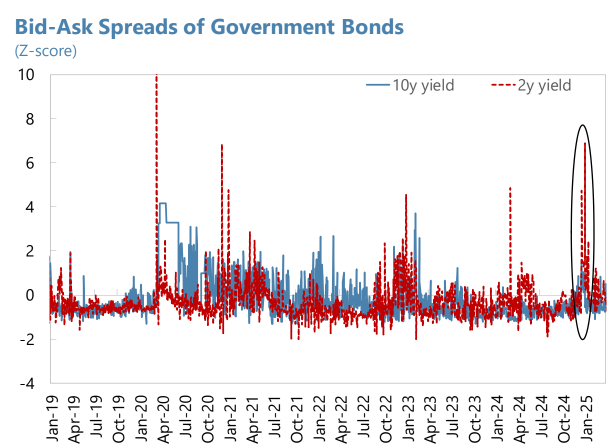
- ***Financial outflows were larger than could be expected based on usual seasonal end-of-year outflows.*** Net financial outflows in December 2024 registered US$29.2 billion, more than double the average of US$12.7 billion during the month of December in the previous three years (2021-23). The high outflows partly reflected dividend payments and stock buybacks.



- ***The larger-than-usual financial outflows caused temporary stress in the spot market in December.*** The onshore dollar interest rate (*cupom cambial*) rose sharply and rapidly, with the three-month *cupom cambial* spread increasing by around 45 and 115 basis points in December compared with its level at the end of November and the end of June, respectively. These spikes reflected concerns among market participants about spot market liquidity shortages. In this context, the BCB intervened in the spot market to smooth FX market functioning and prevent contagion to other asset classes, including fixed income where the bid-ask spreads also sharply rose.

5. FX intervention can address episodes when FX liquidity becomes shallow temporarily as in December 2024. Brazil's FX market is generally liquid and deep, supported by one of the highest daily FX turnovers among Emerging Markets (BIS Triennial Survey) and generally narrow and stable spot BRL/USD bid-ask spreads. However, this market is dominated by transactions in the listed derivatives market rather than the spot market. The spot market can turn shallow temporarily during large shocks as was the case in December. In such cases FX intervention can be appropriate to address market frictions and potential negative spillovers across other assets.





Sources: Bloomberg, Fund staff calculations.

6. Exchange rate flexibility continues to serve Brazil well as an absorber of external shocks. Continuing to allow Brazil's currency to move in the context of shifts in fundamentals remains appropriate. While increasing spreads because of uncertainty related to domestic fiscal policy should be addressed by warranted macroeconomic adjustment, FXI can be appropriate to address market dysfunction and potential negative spillovers across other assets.

Annex III. Estimating Exchange Rate Pass-Through[1]

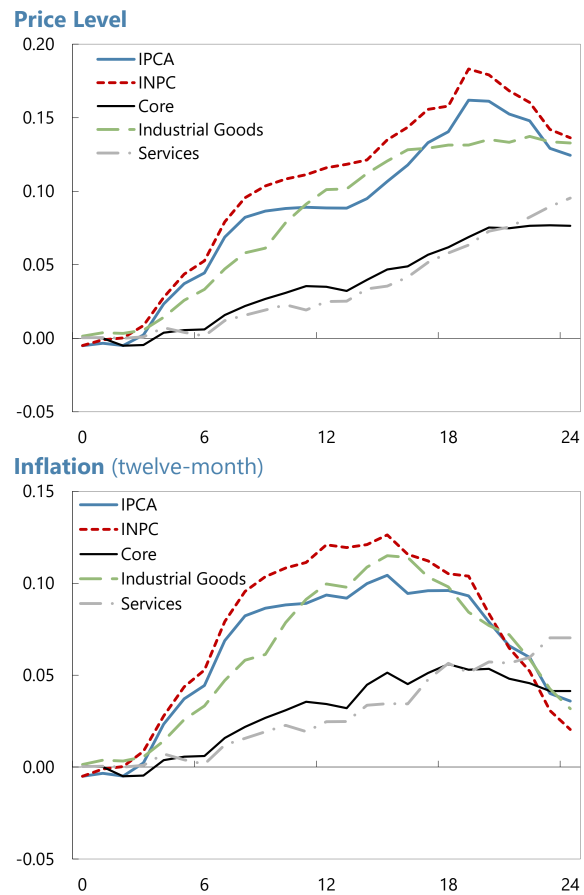
1. This annex assesses the implications of currency movements for inflation in Brazil. The analysis estimates the response of consumer prices to exchange rate fluctuations using local projections following Jordà (2005). The baseline specification, estimated using monthly data for January 2005 –April 2025, is as follows:

$$p_{t+h} - p_{t-1} = \beta_0^h + \beta_1^h \Delta NEER_{t-l} + \beta_2^h \Delta p_t^{Oil} + \Sigma_{l=1}^{12}\left(\beta_l^{ER,h} \Delta NEER_{t-l} + \beta_l^{p,h} \Delta p_{t-l} + \beta_l^{o,h} \Delta p_{t-l}^{Oil}\right) + \epsilon_t,$$

where p_{t+h} is the (log) consumer price index (IPCA) or other price indexes in month $t+h$; Δ is the difference operator; $NEER_t$ is the (log) Nominal Effective Exchange Rate (an increase corresponds to a depreciation); and p_t^{Oil} is the (log) international price of oil price based on the Brent crude oil benchmark.

2. The analysis suggests that a 10 percent NEER depreciation is followed by an increase in the IPCA level of about 0.9 percent after twelve months and about 1.2 percent after 24 months. Converting these results to twelve-month inflation rates indicates a pass-through that peaks after 15 months at 1 percentage point for headline IPCA inflation.[2]

Responses to 1 Percent NEER Depreciation
(Percent; months on x-axis)



Sources: Bloomberg, Haver, Fund staff calculations.

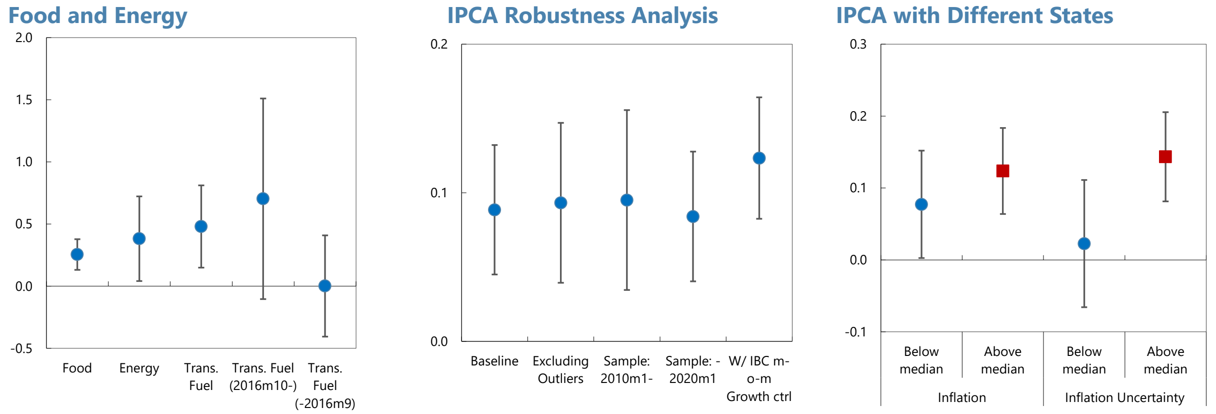
3. Prices faced by lower-income households appear to respond more strongly than the general consumer price index to exchange rate movements. The estimated response of the national consumer price index (INPC), which measures the prices of a consumer basket representative of families with an income between 1 and 5 minimum wages, to a 10 percent depreciation peaks at about 1.8 percent. This result reflects the larger weight of energy and food in these families' consumption baskets, for which pass-through is especially high (see next paragraph). Core inflation (the BCB's average of five underlying inflation measures) and services inflation are found to respond more slowly to exchange rate fluctuations, with the

[1] This Annex was prepared by Chao He (WHD).

[2] These results are broadly in line with those based on the BCB's semi-structural model (see BCB 2024).

responses peaking at about 18 months and 24 months, respectively. This result reflects the lower shares of imported products in these aggregates.

Estimated Responses of Price Level to 1 Percent NEER Depreciation
(Percent; response after twelve months)



Sources: Bloomberg, Haver, Fund staff calculations.
Note: Whiskers indicate 90 percent confidence interval. Food includes food consumed outside of home. Energy includes residential electricity, housing fuels and transportation fuels. Robustness to excluding outliers based on discarding observations with Cook's distance greater than 4/N, where N is the sample size. In the right chart, blue circles (red squares) indicate point estimates associated with an initial condition (shown on the x-axis) being below (above) the sample median. Inflation uncertainty indicates the standard deviation of the one-year ahead forecast of analysts polled by Consensus Economics.

4. **Exchange rate pass-through to food prices and energy prices following a 10 percent NEER depreciation is estimated to be particularly strong, at 2.5 percent and 4.0 percent, respectively, after twelve months.** This stronger pass-through reflects the substantial role of imported inputs in retail food and energy products, including fertilizer and pesticides for food and refined petroleum products for energy. Pass-through for transportation fuel is much stronger after 2016, reflecting the 2016 shift from state-controlled pricing by *Petrobras* to a price parity system.

5. **The estimates hold up to a number of robustness tests.** Excluding outliers or the first five or last five years of the sample yields similar point estimates. Controlling additionally for the monthly growth rate of the IBC-Br economic activity index increases the point estimate.

6. **Additional analysis indicates that exchange rate pass-through is stronger when the initial level of inflation or of inflation uncertainty is above the sample median—conditions that have applied in recent months.** To estimate state-dependent pass-through, the analysis follows the approach of Carrière-Swallow et al (2023) and estimates the following specification:

$$\begin{aligned} p_{t+h} - p_{t-1} = {} & \beta_0^h + \beta_1^h D_t + \beta_1^{0,h} \Delta NEER_t (1 - D_t) + \beta_1^{1,h} \Delta NEER_t D_t + \beta_2^h \Delta p_t^{Oil} \\ & + \Sigma_{l=1}^{12} \left(\beta_l^{ER0,h} \Delta NEER_{t-l} (1 - D_{t-l}) + \beta_l^{ER1,h} \Delta NEER_{t-l} D_{t-l} + \beta_l^{p,h} \Delta p_{t-l} + \beta_l^{o,h} \Delta p_{t-l}^{Oil} \right) \\ & + \epsilon_t, \end{aligned}$$

where D_t is a dummy variable indicating whether an initial condition (state) holds. The results suggest that when current inflation or the standard deviation of one-year-ahead inflation forecasts (across analysts polled by Consensus Economics) are above median, exchange rate pass-through is higher than when those indicators are below the sample median. This result could reflect that prices become less sticky in such environments, with price-setters more responsive to exchange rate movements.

Annex IV. External Sector Assessment[1]

Overall Assessment: *On a preliminary basis, the external position in 2024 was broadly in line with the level implied by medium-term fundamentals and desirable policies*. The CA deficit widened to 2.8 percent of GDP in 2024 and is expected to converge to 1.9 percent of GDP over the medium term as oil exports increase and net public savings improve. Risks to Brazil's external position over the medium term relate to an intensification of geoeconomic fragmentation, heightened global uncertainty, and insufficient progress on domestic reforms.

Potential Policy Responses: Policies that would help keep the CA in line with its norm include efforts to raise national savings, which would provide room for a sustainable expansion in investment. A sustained and more ambitious fiscal effort would contribute to increasing net public savings. Structural reforms that improve efficiency and reduce firms' cost of capital would help strengthen competitiveness. Industrial policies should (i) remain narrowly targeted to specific objectives where externalities or market failures prevent effective market solutions, (ii) avoid increasing barriers to trade and investment, and (iii) not favor domestic producers over imports.

Foreign Asset and Liability Position and Trajectory

Background. Brazil's NIIP rose to –34.6 percent of GDP in 2024, from –50.3 percent of GDP in 2023 and an average of – 38 percent of the GDP during 2018–22. The NIIP increase in 2024 consisted of a 2.2 percentage points of GDP rise in gross foreign assets from 2023 and a 13.5 percentage points of GDP decline in gross foreign liabilities, supported by portfolio rebalancing (including in equity and investment fund shares) and the positive valuation effects from currency depreciation. FDI continued to account for more than half of all liabilities. At the end of 2024, external debt decreased to 33.1 percent of GDP and 212 percent of exports, from about 33.4 percent of GDP and 213 percent of exports in 2023.

Assessment. The NIIP has been negative since the series was first published in 2001. Over the medium term, gross external financing needs are moderate at about 10 percent of GDP annually. The NIIP is projected to stabilize around –45 percent of GDP over the medium term, in line with projected CA deficits being offset by robust nominal GDP growth.

2024 (% GDP)	NIIP: –34.6	Gross Assets: 47.2	Res Assets: 15.2	Gross Liab.: 81.8	Debt Liab.: 33.1

Current Account

Background. During 2018–22, the CA deficit averaged 2.5 percent of GDP before dropping to 1.3 percent in 2023. The CA deficit widened to 2.8 percent of GDP in 2024, the result of a narrower trade balance surplus (3.0 percent of GDP), as imports rose with stronger economic activity; and a higher service balance deficit (2.5 percent of GDP). From a saving-investment perspective, the widened CA deficit in 2024 reflected the public sector's reduced saving-investment deficit being partially offset by a private sector saving-investment surplus that was smaller compared with 2023. The CA deficit is expected to converge to 1.9 percent of GDP over the medium term, supported by higher oil exports and improved net public savings.

Assessment. In 2024, the cyclically adjusted CA balance was –2.9 percent of GDP, and EBA estimates suggest a cyclically adjusted CA norm of –1.9 percent of GDP. IMF staff estimates the CA gap to be in the range of –1.5 to –0.5 percent of GDP, with a midpoint of –1.0 percent. EBA-identified policy gaps are estimated at –1.5 percent of GDP, reflecting positive credit growth, FX reserves changes, and more expansionary fiscal policy stances in Brazil relative to trading partners.

2024 (% GDP)	CA: –2.8	Cycl. Adj. CA: –2.9	EBA Norm: –1.9	EBA Gap: –1.0	Staff Adj.: 0.0	Staff Gap: –1.0

Real Exchange Rate

Background. The REER depreciated by 4.2 percent in 2024 compared to the 2023 average, after appreciating 4.9 percent in 2023. The nominal exchange rate depreciation against the US dollar reached around 20 percent by December 2024 at a 12-month rate. As of March 2025, the REER had depreciated by 4.3 percent from the 2024 average.

Assessment. The IMF staff's CA gap estimate implies a REER gap of 7.6 percent in 2024 (applying an estimated elasticity of 0.13). The REER index model suggests a REER gap of –31.2

[1] This Annex was prepared by Yiqun Wu (SPR).

	percent and level model suggests –15.5 percent. Consistent with the CA gap, the staff assessed REER gap is in the range of 3.8 to 11.4 percent, with a midpoint of 7.6 percent. The sizable REER depreciation since the start of 2024, yet to be fully reflected in the CA because of its lagged effect, is contributing to narrowing the assessed REER gap.
Capital and Financial Accounts: Flows and Policy Measures	**Background.** Brazil continues to attract sizable capital flows. Net FDI flows continued to finance the CA deficit, averaging 2.8 percent of GDP during 2015–22 and remaining a sizable 2.2 percent of GDP in 2024. Portfolio investment registered net inflows of 0.1 percent of GDP. **Assessment.** The composition of capital flows is expected to have a favorable risk profile over the medium term, with positive net FDI inflows outweighing negative portfolio outflows and debt liabilities increasingly denominated by FDI liabilities. Uncertainties related to tighter global financial conditions and insufficient progress on reforms pose downside risks to capital flows.
FX Intervention and Reserves Level	**Background.** Brazil has a floating exchange rate. During 2020-22 and 2024, the authorities intervened in the FX markets (including spot, repo, and FX swap markets) to ensure smooth market functioning and reduce excessive volatility. International reserves declined by $ 25 billion to $330 billion at the end of 2024. **Assessment.** The flexible exchange rate has been an important shock absorber. Reserves remain adequate, including based on the IMF's reserve adequacy metric (126 percent at the end of 2024) and serve as insurance against external shocks. FX interventions were two-sided in recent years. In general, FX intervention could be used to address episodes of higher risk premia when FX liquidity becomes shallow, without substituting for warranted adjustment of macroeconomic policies.

Annex V. Risk Assessment Matrix[1]

Risks	Likelihood	Impact	Policy Response
		Domestic Risks	
Downside Risks			
Slower-than-envisaged fiscal consolidation. Fiscal measures envisaged in the baseline scenario do not materialize or yield less than the expected fiscal consolidation.	**High**	**Medium.** While supporting growth in the near term, slower-than-envisaged fiscal consolidation raises pressures on public debt, risk premiums, and borrowing costs, which subsequently weaken investment and growth. Currency depreciation occurs amid lower investor sentiment. Medium-term inflation expectations remain unanchored.	Efforts to strengthen the fiscal position, supported by an enhanced fiscal framework, a further broadening of the tax base, and reforms that tackle spending rigidities should accelerate, while protecting the most vulnerable through targeted support. Monetary policy should remain guided by incoming data and the evolution of inflation expectations.
Natural disasters. Extreme weather events lead to casualties, infrastructure damage, food insecurity, supply disruptions, dampened growth, and financial instability.	**Medium**	**Medium.** The electricity sector, with its significant contribution from hydropower, experiences swings in production and cost increases. Mudslides and flooding destroy buildings and livelihoods.	The government can provide targeted support to mitigate the impact of natural disasters on the most vulnerable and establish funds for reconstruction. Policies should aim to diversify energy sources by further broadening solar and wind energy; adjust grids and storage capacity for electricity; invest in safer infrastructure; and protect biomes to conserve precipitation patterns. Strengthened early warning systems could help to mitigate risks from mud slides and flooding.

[1] This Annex was prepared by Bunyada Laoprapassorn (WHD).

Risks	Likelihood	Impact	Policy Response
Upside Risks			
Faster-than-expected implementation of structural reform agenda, including the Ecological Transformation Plan.	Medium	**High.** Higher-than-expected medium-term growth with increased labor force participation, productivity, and investment.	Additional steps aimed at enhancing human capital, including adult education and vocational training programs, would complement such reforms and sustain labor market gains in an inclusive manner. Facilitating workers' participation in social security programs and promoting private savings would provide buffers for vulnerable workers.
Global Risks			
Downside Risks			
Trade policy and investment shocks. Higher trade barriers or sanctions reduce external trade, disrupt FDI and supply chains, and trigger U.S. dollar appreciation, tighter financial conditions, and higher inflation.	High	**Medium.** 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, and lower global demand and commodity prices.	Monetary policy should remain data-dependent and adjust the pace and length of the hiking cycle to the incoming data and the evolution of inflation expectations. Targeted fiscal support could be provided to vulnerable households, with a pre-defined plan for returning to the pre-shock fiscal path. An enhanced fiscal framework with a binding medium-term anchor would support policy credibility during that process. Structural reforms to boost growth and facilitate adjustment to shocks, including upgrading skills, should be intensified.
Commodity price volatility. Supply and demand volatility (due to conflicts, trade restrictions, OPEC+ decisions, AE energy policies, or green transition) increases commodity price volatility, external and fiscal pressures, social discontent, and economic instability.	Medium	**Low.** Low and volatile oil prices could retard investment and reduce growth. At the same time, high and volatile oil prices could increase inflation pressures in an unpredictable manner.	Higher oil prices should be allowed to pass through to consumers, accompanied by targeted support for the poor as needed. Monetary policy should remain data-dependent and adjust the pace and length of the hiking cycle to the incoming data and the evolution of inflation expectations to contain second-round inflationary effects of high commodity prices.

Risks	Likelihood	Impact	Policy Response
Deepening geoeconomic fragmentation. Persistent conflicts, inward-oriented policies, protectionism, weaker international cooperation, labor mobility curbs, and fracturing technological and payments systems lead to higher input costs, hinder green transition, and lower trade and potential growth.	High	Medium. Lower economic productivity and higher input costs could weaken economic activity in trading partners. However, Brazil's trade-to-GDP ratio is relatively low, which would contain negative growth effects.	The government should accelerate structural reforms and policies related to upgrading skills and education to ensure that the economy can adjust swiftly to shifts in trade and FDI patterns and lower global economic growth.
Tighter financial conditions and systemic instability. Higher-for-longer interest rates and term premia amid looser financial regulation, rising investments in cryptocurrencies, and higher trade barriers trigger asset repricing, market dislocations, weak bank and NBFI distress, and further U.S. dollar appreciation, which widens global imbalances, worsens debt affordability, and increases capital outflow from EMDEs.	Medium	Medium. Systemically important banks are adequately capitalized and liquid with securities' portfolios mostly marked-to-market and interest-rate risk hedged appropriately. The authorities' stress tests suggest the banking system would be resilient to a variety of risks, including a significant deterioration in credit quality.	The authorities are appropriately taking steps to pass resolution legislation as recommended in the 2018 FSAP to ensure that any problem banks are addressed efficiently and swiftly.
Cyberthreats. Cyberattacks on physical or digital infrastructure and service providers (including digital currency and crypto assets) or misuse of AI technologies trigger financial and economic instability.	High	High. Cyberattacks could disrupt economic activity and damage the financial sector given the high degree of digitalization in Brazil. The resulting loss of confidence could hinder progress on digitalization.	Continue to extensively monitor risks and regularly perform cybersecurity tests. Further build resilience by strengthening cybersecurity frameworks and ensuring robust cybersecurity laws.

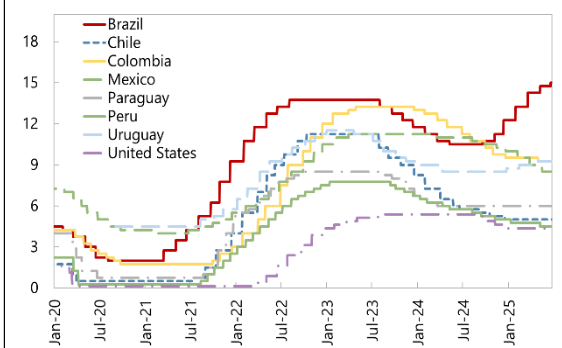
Risks	Likelihood	Impact	Policy Response
Upside Risks			
Global growth acceleration. Easing of conflicts, positive supply-side surprises (e.g., oil production shocks), productivity gains from AI, or structural reforms raise global demand and trade.	**Low**	**Medium.** Increased global economic activity boosts consumer and investment confidence, in particular if the acceleration happens in Brazil's main trading partners. However, Brazil's trade-to-GDP ratio is relatively low, which would contain positive growth effects.	Monetary policy should remain data-dependent and adjust the pace and length of the hiking cycle to the incoming data and the evolution of inflation expectations. Fiscal policy should act in tandem with monetary policy to stabilize aggregate demand and strengthen fiscal credibility.

Annex VI. Monetary Policy Reaction Function Estimates[1]

1. **The BCB was the first major central bank to raise rates during the pandemic and initiated a new tightening cycle in September 2024.** To shed light on the drivers of BCB policy rate decisions, staff estimates a standard policy reaction function:

$$i_t = \alpha + \beta \text{Inflation gap}_t + \gamma \text{Output gap}_t + \theta D_t + \eta i_{t-1}$$

Monetary Policy Rates
(Nominal; percent)



Sources: National authorities, Haver.

where i_t is the nominal policy rate in month t; *Inflation gap*$_t$ is the gap between different inflation indicators considered in the analysis and the inflation target; *Output gap*$_t$ is the output gap estimate of the BCB; D_t is a dummy variable that captures the peak of the COVID-19 crisis (March 2020-February 2021); and i_{t-1} is the lagged interest rate, which captures the empirical fact that central banks generally smooth interest rate moves to avoid moving the short-term rate too fast. The baseline sample encompasses monthly data from June 2016—before which a number of studies indicate the presence of monetary policy structural breaks—to April 2025.[2] The analysis considers four measures of inflation: headline IPCA inflation; core inflation (the BCB's average of five underlying inflation measures); and expectations of inflation in twelve and eighteen months, respectively, based on the *Focus* survey of professional forecasters.

2. **The estimation results suggest that the BCB policy rate has responded strongly to current inflation and even more strongly to expectations of future inflation (Table 1) in line with standard inflation-targeting principles.** The estimated response of the policy rate to the four measures of the inflation gap considered is highly statistically and economically significant. The long-run response of the policy rate to the inflation gap—derived as $\beta/(1-\eta)$—is well above one in all cases, satisfying a necessary condition (Taylor Principle) for inflation stabilization. The policy response is significantly stronger for expectations of future inflation than for measures of current inflation, consistent with a forward-looking inflation-targeting approach.[3] In addition, while the response to the output gap is positive and statistically significant in the specification with current headline inflation, it is either insignificant or imprecisely estimated in the specifications with inflation

[1] This Annex was prepared by Swarnali Ahmed Hannan and Daniel Leigh (both WHD).

[2] June 2016 marks the start of the term of BCB Governor Goldfajn. Carvalho and Muinhos (2022) find that the monetary policy response to inflation in Brazil was generally strong during 2004-2009 but fell markedly in the early 2010s, before increasing again and remaining broadly stable from mid-2016 onward.

[3] Relatedly, Jácome and others (2025) find, for a large sample of countries, that central banks respond more strongly to deviations of inflation expectations from target than to deviations of current inflation from target, in line with Svensson's (1997) notion that inflation targeting implies *inflation-forecast* targeting. Jácome and others also find that central banks in countries with a history of high inflation are especially responsive to deviations of inflation expectations from target.

expectations, suggesting that this response primarily reflects the explanatory power of output for future inflation. Additional analysis suggests that these results are robust to including additional control variables, including the US policy rate, the exchange rate, and oil prices. The results are also robust to instrumental variable (IV) estimation using four lags of the inflation gap as the instrumental variable for the inflation gap; the coefficients for twelve- and eighteen-month-ahead inflation expectations are then somewhat stronger than those reported in Table 1. The finding that the policy rate has responded particularly strongly to expectations of inflation over an eighteen-month horizon is consistent with the six-quarter-ahead "current relevant monetary policy horizon" highlighted in BCB publications (for example, in Minutes of the Monetary Policy Committee (Copom).[4]

Table 1. Brazil: Estimated Policy Reaction Function

VARIABLES	Headline	Core	12-month ahead	18-month ahead
Inflation gap	0.11***	0.15***	0.39***	0.69***
	(0.01)	(0.03)	(0.05)	(0.09)
Output gap	0.08***	0.08*	-0.01	-0.06*
	(0.03)	(0.05)	(0.03)	(0.04)
Policy rate (t-1)	0.95***	0.91***	0.92***	0.90***
	(0.01)	(0.02)	(0.01)	(0.01)
Pandemic dummy	-0.06	-0.20	-0.39***	-0.51***
	(0.12)	(0.17)	(0.12)	(0.13)
Constant	0.42***	0.84***	0.54***	0.56***
	(0.09)	(0.15)	(0.12)	(0.13)
Observations	107	107	107	107
Adjusted R-squared	0.992	0.991	0.992	0.992

Newey-West standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

3. To assess the extent to which policy rate increases since 2021 have reflected a response to expectations of future inflation, staff conducts dynamic simulations based on the policy reaction estimates. The analysis compares the actual rise in the policy rate since January 2021 with the simulated increase that could be expected based on the specification with an eighteen-month horizon for the inflation gap. The simulated policy rate in period t is a function of the inflation gap and—reflecting the smoothing parameter η—the simulated policy rate in period $t-1$. The results indicate that the increase in the policy rate since 2021 is closely explained by the rise in expected inflation, as reported in the text chart entitled "Change in Policy Rate" in the text section on "Completing Disinflation." These results confirm that BCB policy rate decisions since 2021 have pro-actively responded to the inflation outlook.

[4] Estimation results based on data for January 2005-May 2016 indicate lower (though still statistically significant) estimated response coefficients compared with those for the sample starting in June 2016. The estimated coefficients are smaller by about half for twelve- and eighteen-month-ahead inflation expectations. This result is in line with the findings of earlier research that, before mid-2016, there were periods during which the policy rate response to inflation was relatively modest (see, for example, Carvalho and Muinhos 2022).

Annex VII. Debt Sustainability Analysis[1]

Figure 1. Brazil: Risk of Sovereign Stress

Horizon	Mechanical signal	Final assessment	Comments
Overall	...	**Moderate**	The overall risk of sovereign stress is moderate, reflecting moderate levels of vulnerability in the medium-, and long-term horizons.
Near term 1/	...	...	...
Medium term	**High**	**Moderate**	Despite the high levels of debt, medium-term risks are assessed as moderate under staff's baseline, on the basis of the overwhelmingly domestic investor base, large liquid assets held by the Treasury and the substantial Central Bank holdings of federal securities that mitigate refinancing risks. These mitigating factors allow for smoothing the impact of any temporary shock.
Fanchart	**High**	...	
GFN	**Moderate**	...	
Stress test	Comm. Prices Nat. Diast.	...	
Long term	...	**Moderate**	Over the long-term, risks are assessed as moderate. Rollover risks are mitigated by the country's capabilities to implement proactive debt management. Increases in aging-related expenditures on health and social security are expected to be addressed through reforms that tackle the sizeable deficits of the social security regimes.
Sustainability assessment 2/			
Debt stabilization in the baseline			Yes

DSA Summary Assessment

Commentary: Overall risk of stress is moderate. Under the baseline scenario, debt is projected to continue increasing in the medium-term, before stabilizing around 99 percent of GDP in 2030, contingent on gradual fiscal adjustment. Medium-term liquidity risks as analyzed by the GFN module are moderate given significant cash buffers (14 percent of GDP) and a large share of the general government gross debt (almost 25 percent of the total) held by the central bank that poses neglible refinancing risks. These mitigating factors could also allow to smooth the impact of any temporary shock. Debt projections are highly sensitive to changes in interest rates given the high share of short-term and variable coupon debt. Over the longer run, Brazil should continue with reforms to tackle risks arising from population aging which will deepen the current deficits of social security regimes. As judicial claims pose an important medium-term risk to debt sustainability, the authorities' ongoing efforts to reduce the stock of claims and the VAT reform recently approved would be key to mitigate this risk.

Source: IMF staff estimates.
Note: The risk of sovereign stress is a broader concept than debt sustainability. Unsustainable debt can only be resolved through exceptional measures (such as debt restructuring). In contrast, a sovereign can face stress without its debt necessarily being unsustainable, and there can be various measures—that do not involve a debt restructuring—to remedy such a situation, such as fiscal adjustment and new financing.
1/ The near-term assessment is not applicable in cases where there is a disbursing IMF arrangement. In surveillance-only cases or in cases with precautionary IMF arrangements, the near-term assessment is performed but not published.
2/ A debt sustainability assessment is optional for surveillance-only cases.

[1] This Annex was prepared by Jean Francois Clevy (WHD).

Figure 2. Brazil: Debt Coverage and Disclosures

						Comments
1. Debt coverage in the DSA: 1/	CG	GG	NFPS	CPS	Other	
1a. If central government, are non-central government entities insignificant?					n.a.	
2. Subsectors included in the chosen coverage in (1) above:						

					Subsectors captured in the baseline	Inclusion	Comments
CPS	NFPS	GG: expected	CG	1	Budgetary central government	Yes	
				2	Extra budgetary funds (EBFs)	No	Not applicable
				3	Social security funds (SSFs)	Yes	
				4	State governments	Yes	
				5	Local governments	Yes	
				6	Public nonfinancial corporations	No	
				7	Central bank	No	
				8	Other public financial corporations	No	

3. Instrument coverage:	Currency & deposits	Loans	Debt securities	Oth acct. payable 2/	IPSGSs 3/
4. Accounting principles:	Basis of recording		Valuation of debt stock		
	Non-cash basis 4/	Cash basis	Nominal value 5/	Face value 6/	Market value 7/
5. Debt consolidation across sectors:		Consolidated		Non-consolidated	

Color code: chosen coverage; Missing from recommended coverage; Not applicable

Reporting on Intra-Government Debt Holdings

					Issuer \ Holder	Budget. central govt	Extra-budget. funds (EBFs)	Social security funds (SSFs)	State govt.	Local govt.	Nonfin. pub. corp.	Central bank	Oth. pub. fin corp	Total
CPS	NFPS	GG: expected	CG	1	Budget. central govt									0
				2	Extra-budget. funds									0
				3	Social security funds									0
				4	State govt.									0
				5	Local govt.									0
				6	Nonfin pub. corp.									0
				7	Central bank									0
				8	Oth. pub. fin. corp									0
					Total	0	0	0	0	0	0	0	0	0

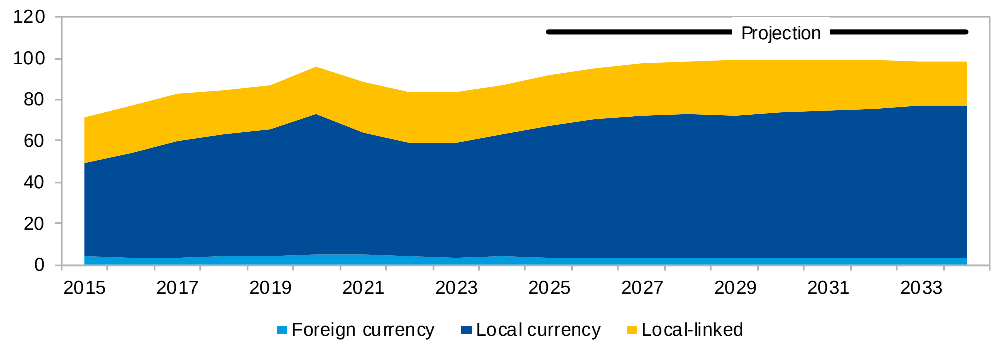
Commentary: Gross debt covers the General Government (GG) following the GFSM 2014 manual. GG gross debt includes all Treasury securities on the BCB balance sheet. The authorities' definition of GG gross debt includes the stock of Treasury securities used for monetary policy purposes by the BCB (those pledged as security in reverse repo operations) but excludes the rest of the government securities held by the BCB.

Source: IMF.

1/ CG=Central government; GG=General government; NFPS=Nonfinancial public sector; PS=Public sector.
2/ Stock of arrears could be used as a proxy in the absence of accrual data on other accounts payable.
3/ Insurance, Pension, and Standardized Guarantee Schemes, typically including government employee pension liabilities.
4/ Includes accrual recording, commitment basis, due for payment, etc.
5/ Nominal value at any moment in time is the amount the debtor owes to the creditor. It reflects the value of the instrument at creation and subsequent economic flows (such as transactions, exchange rate, and other valuation changes other than market price changes, and other volume changes).
6/ The face value of a debt instrument is the undiscounted amount of principal to be paid at (or before) maturity.
7/ Market value of debt instruments is the value as if they were acquired in market transactions on the balance sheet reporting date (reference date). Only traded debt securities have observed market values.

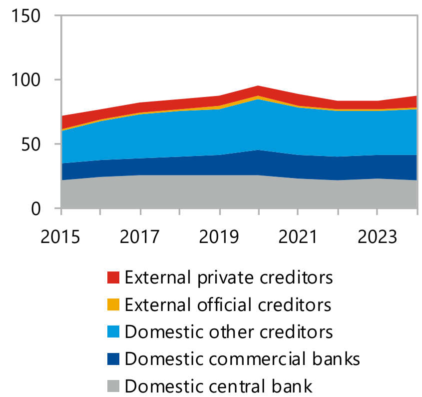
Figure 3. Brazil: Public Debt Structure Indicators

Debt by Currency (Percent of GDP)



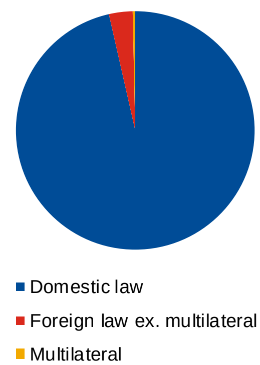
Note: The perimeter shown is general government.

Public Debt by Holder (Percent of GDP)



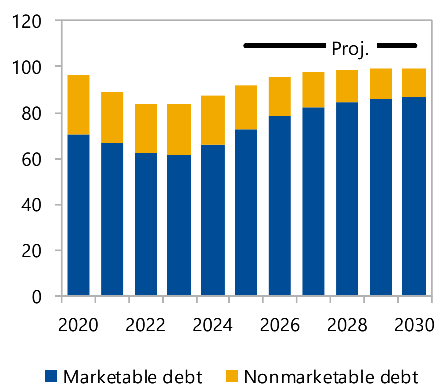
Note: The perimeter shown is general government.

Public Debt by Governing Law, 2024 (Percent)



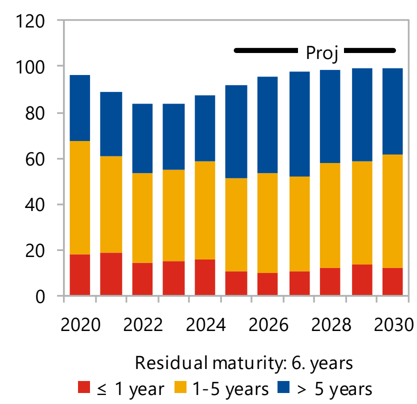
Note: The perimeter shown is central government.

Debt by Instruments (Percent of GDP)



Note: The perimeter shown is general government.

Public Debt by Maturity (Percent of GDP)



Note: The perimeter shown is general government.

Commentary: Debt composition is favorable with small amounts of FX and foreign law debt, limited reliance on foreigners for local currency debt, and a large stock securities held by the BCB that pose neglible refinancing risks. Debt projections are highly sensitive to changes in interest rates given the high share of short-term and variable coupon debt.

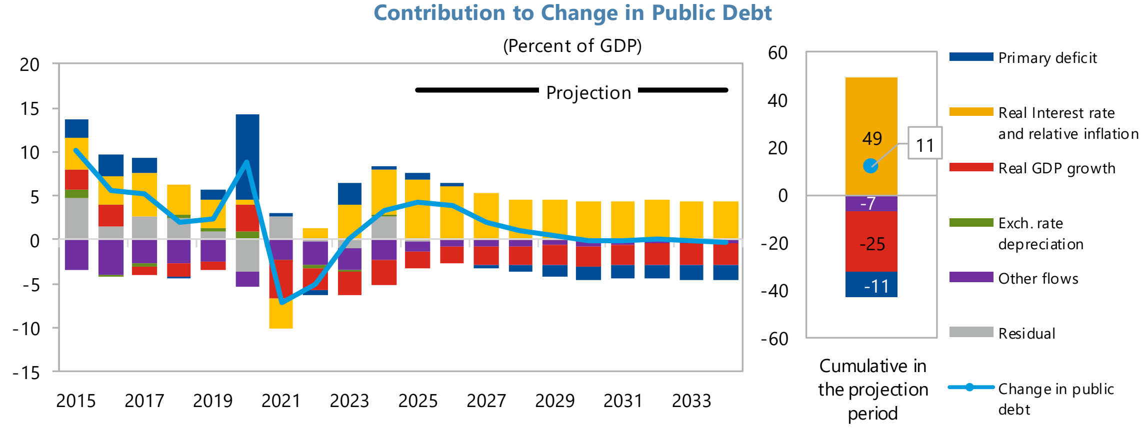
Source: IMF staff estimates and projections.

Figure 4. Brazil: Baseline Scenario

(Percent of GDP unless indicated otherwise)

	Actual	Medium-term projection						Extended projection			
	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Public debt	87.3	91.6	95.5	97.6	98.6	99.0	98.9	98.9	98.9	98.8	98.6
Change in public debt	3.3	4.3	3.9	2.1	1.0	0.4	-0.1	-0.1	0.0	-0.1	-0.2
Contribution of identified flows	0.7	4.5	4.0	2.0	0.9	0.4	-0.1	-0.1	0.0	-0.1	-0.2
Primary deficit	0.4	0.6	0.4	-0.3	-0.8	-1.2	-1.4	-1.5	-1.6	-1.7	-1.7
Noninterest revenues	37	38	38	38	38	38	38	38	38	38	38
Noninterest expenditures	37	38	38	38	37	37	37	37	37	37	37
Automatic debt dynamics	2.6	5.0	4.3	3.1	2.4	2.2	2.0	1.9	2.1	2.0	1.9
Real interest rate and relative inflation	5.1	6.9	6.1	5.2	4.6	4.5	4.4	4.3	4.5	4.4	4.4
Real interest rate	5.1	6.9	6.1	5.2	4.6	4.4	4.4	4.3	4.4	4.4	4.3
Relative inflation	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Real growth rate	-2.8	-2.0	-1.9	-2.1	-2.2	-2.3	-2.4	-2.4	-2.4	-2.4	-2.4
Real exchange rate	0.2	…	…	…	…	…	…	…	…	…	…
Other identified flows 1/	-2.3	-1.1	-0.7	-0.8	-0.7	-0.6	-0.7	-0.5	-0.4	-0.4	-0.4
Contingent liabilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(minus) Interest Revenues	-2.3	-2.3	-2.1	-1.9	-1.7	-1.7	-1.7	-1.6	-1.6	-1.5	-1.5
Other transactions	0.0	1.1	1.4	1.1	1.1	1.1	1.0	1.1	1.1	1.10	1.10
Contribution of residual	2.6	-0.2	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gross financing needs	16.4	14.2	15.3	15.5	16.5	17.7	19.2	17.1	12.5	20.7	16.7
of which: debt service	18.3	15.9	17.0	17.7	19.1	20.6	22.3	20.2	15.7	23.9	19.9
Local currency	18.1	12.3	12.6	14.6	15.3	17.9	16.7	15.2	10.7	18.3	14.8
Foreign currency	0.2	0.8	0.5	0.5	0.5	0.4	0.5	0.3	0.3	0.3	0.3
Memo:											
Real GDP growth (percent)	3.4	2.3	2.1	2.2	2.3	2.4	2.5	2.5	2.5	2.5	2.5
Inflation (GDP deflator; percent)	3.8	3.8	3.6	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Nominal GDP growth (percent)	7.3	6.2	5.8	5.8	5.9	6.0	6.1	6.1	6.1	6.0	6.1
Effective interest rate (percent)	10.3	12.2	10.6	9.2	8.5	8.3	8.2	8.1	8.2	8.1	8.2

Contribution to Change in Public Debt



Staff commentary: Public debt will rise over the medium term largely due to unfavorable r-g dynamics. Under staff's baseline, a fiscal consolidation of around 2 percent of GDP is expected to stabilize debt at around 99 percent of GDP in 2030.

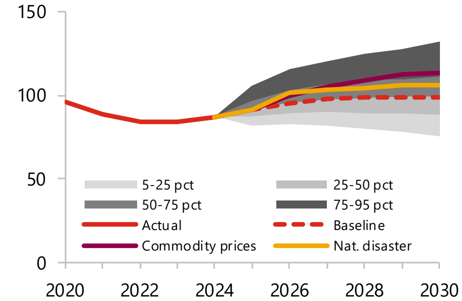
Source: IMF staff estimates and projections.

1/ Negative values in the projections primarily reflect the use of interest rate revenues from the TSA account to finance debt.

Figure 5. Brazil: Medium-Term Risk Assessment

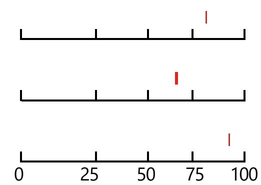
	Value	Contrib 1/	Percentile in peer group 2/

Final Fanchart (Percent of GDP)

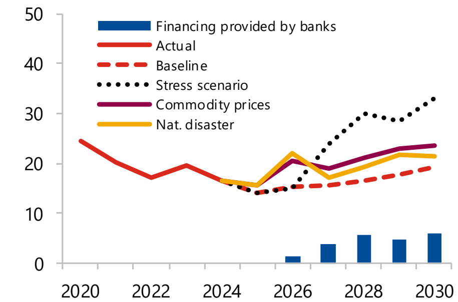


Debt fanchart module

	Value	Contrib 1/
Fanchart width *(percent of GDP)*	56.9	0.8
Probability of debt non-stabilization *(percent)*	63.4	0.5
Terminal debt-to-GDP x institutions index	69.9	1.5
Debt fanchart index (DFI)		2.9
Risk signal: 3/		**High**

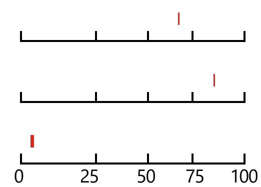


Gross Financing Needs (Percent of GDP)



Gross financing needs (GFN) module

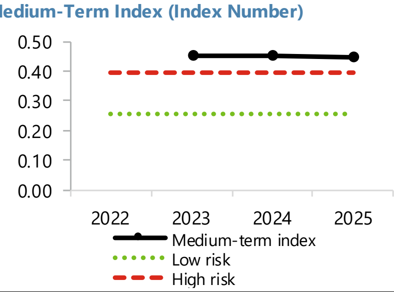
	Value	Contrib 1/
Average baseline GFN *(percent of GDP)*	16.4	5.6
Initial Banks' claims on th gen. govt *(pct bank assets)*	23.3	7.6
Chg. In banks' claims in stress *(pct banks' assets)*	0.9	0.3
GFN financeability index (GFI)		13.5
Risk signal: 4/		**Moderate**



Triggered stress tests (stress tests not activated in gray)

Banking crisis | Commodity prices | Exchange rate | Contingent liab. | Natural disaster

Medium-Term Index (Index Number)



Medium-term risk analysis

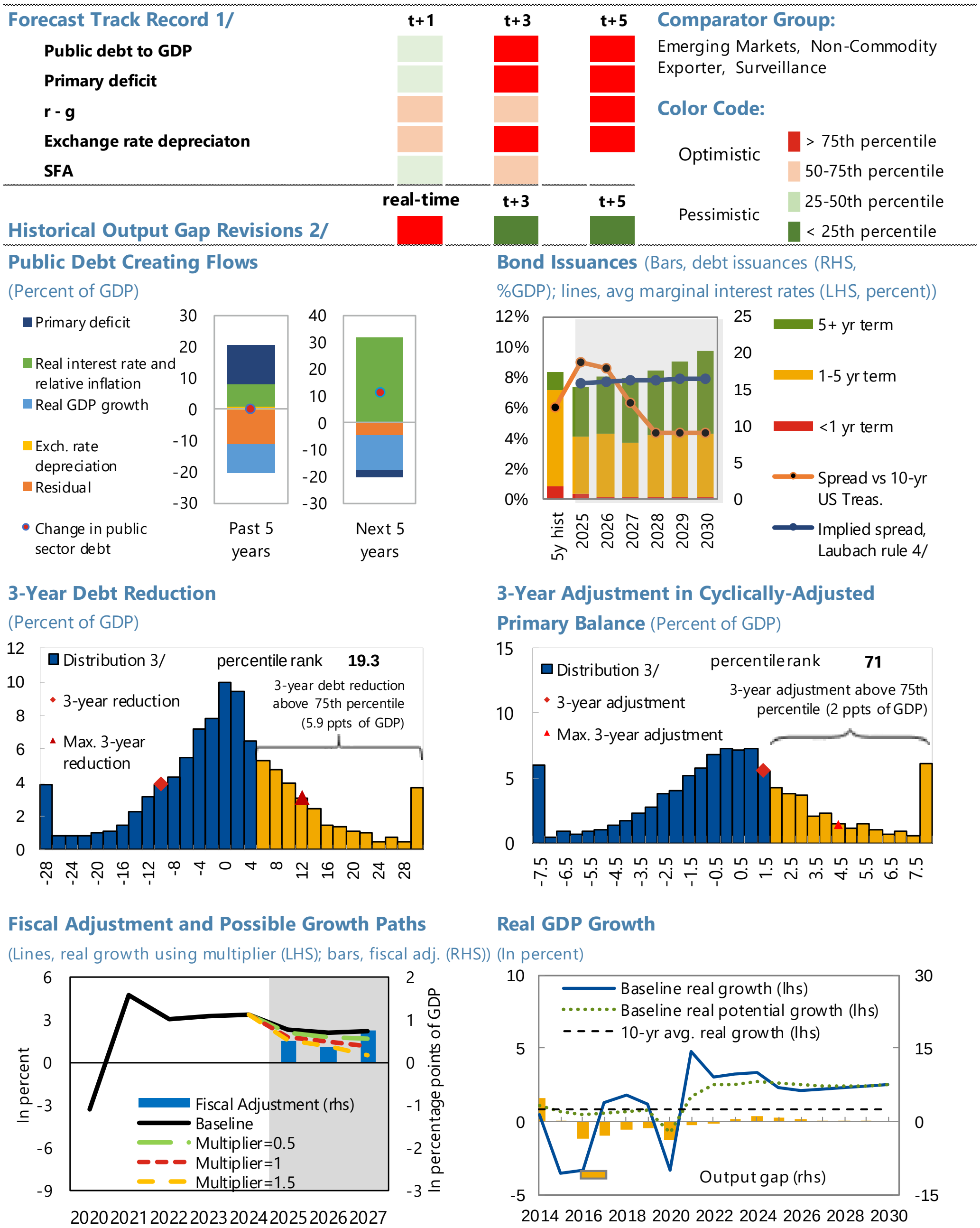
	Value	Value (normalized)	Weight	Contribution
Debt fanchart index	2.9	0.6	0.5	0.3
GFN finaceability index	13.5	0.3	0.5	0.1
Medium-term index		0.4		
Risk signal: 5/		**High**		
Final assessment:		**Moderate**		

Prob. of missed crisis, 2025-2030, if stress not predicted: 54.5 pct.
Prob. of false alarms, 2025-2030, if stress predicted: 6.8 pct.

Commentary: Of the two medium-term tools, the Debt Fanchart Module is pointing to high level of risk, while the GFN financeability module suggests lower, but still moderate, level of risk. The large availability of liquid assets (14 percent of GDP in cash buffers) could help lower the terminal level of debt in the long run while the negligible refinancing risks for central bank held securities (which must be rolled over by law) further mitigate GFN risks.

Source: IMF staff estimates and projections.
1/ See Annex IV of IMF, 2022, Staff Guidance Note on the Sovereign Risk and Debt Sustainability Framework for details on index calculation.
2/ The comparison group is emerging markets, non-commodity exporter, surveillance.
3/ The signal is low risk if the DFI is below 1.13; high risk if the DFI is above 2.08; and otherwise, it is moderate risk.
4/ The signal is low risk if the GFI is below 7.6; high risk if the DFI is above 17.9; and otherwise, it is moderate risk.
5/ The signal is low risk if the GFI is below 0.26; high risk if the DFI is above 0.40; and otherwise, it is moderate risk.

Figure 6. Brazil: Realism of Baseline Assumptions



Commentary: The composition of debt creating flows shows the impact of higher real interest rates compared to the lower rates prevailing during the pandemic. The 3-year adjustment in the cyclically primary balance is within historical norms.

Source : IMF staff estimates and projections.

1/ Projections made in the October and April WEO vintage.

2/ Calculated as the percentile rank of the country's output gap revisions (defined as the difference between real time/period ahead estimates.

3/ Data cover annual obervations from 1990 to 2019 for MAC advanced and emerging economies. Percent of sample on vertical axis.

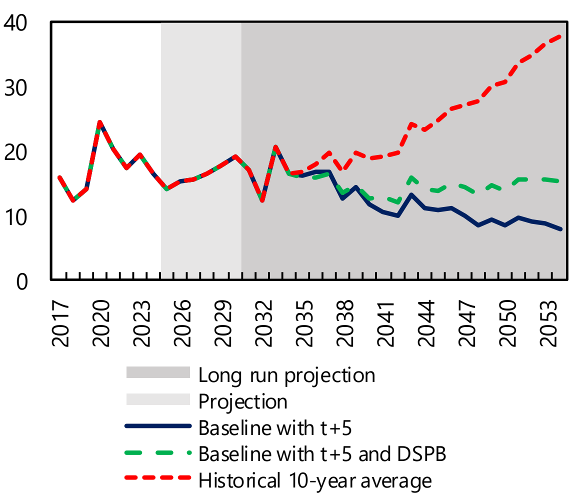
4/ The Laubach (2009) rule is a linear rule assuming bond spreads increase by about 4 bps in response to a 1 ppt increase in the projected debt-to-GDP ratio.

Figure 7. Brazil: Triggered Modules

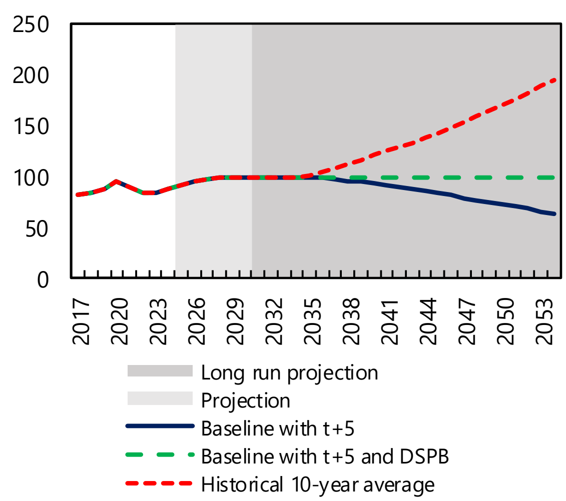
Brazil: Long-Term Risk Assessment: Large Amortization

Projection	Variable	Risk Indication
Medium-term extrapolation	GFN-to-GDP ratio	
	Amortization-to-GDP ratio	
	Amortization	
Medium-term extrapolation with debt stabilizing primary balance	GFN-to-GDP ratio	
	Amortization-to-GDP ratio	
	Amortization	
Historical average assumptions	GFN-to-GDP ratio	
	Amortization-to-GDP ratio	
	Amortization	
Overall Risk Indication		

GFN-to-GDP Ratio



Total Public Debt-to-GDP Ratio



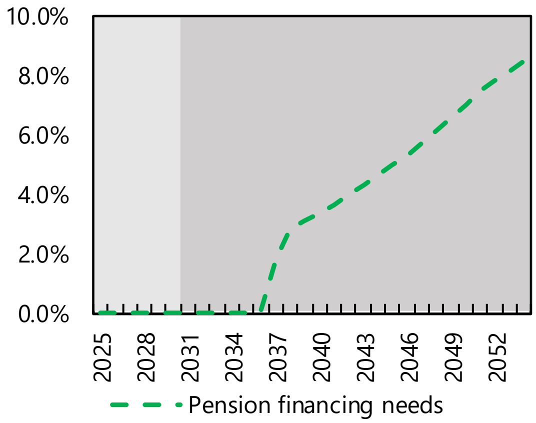
Commentary: Over the long-term, Brazil's rollover risk is moderate. In the event of abnormally large amortization, staff factored in the country's capabilities to engage in proactive debt management. Refinancing risks are mitigated by the overwhelmingly domestic investor base, large liquid assets held by the treasury and the substantial Central Bank holdings of federal securities that pose negligible refinancing risks. The historical scenario simulation might not be representative as it reflects historically elevated deficit, including the impact of the COVID-19 pandemic.

Source: IMF staff estimates and projections.

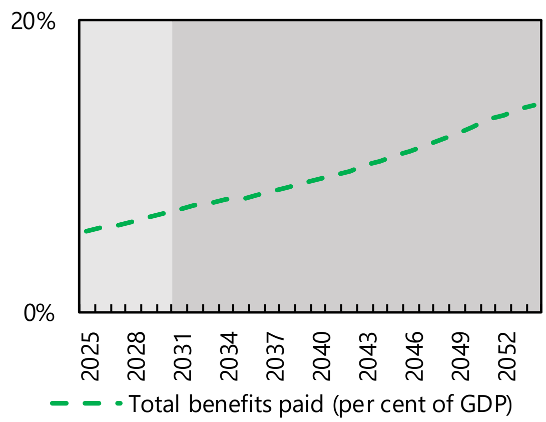
Figure 8. Brazil: Demographics: Pensions

Permanent adjustment needed in the pension system to keep pension assets positive for:	30 years	50 years	Until 2100
(pp of GDP per year)	3.1%	6.5%	9.5%

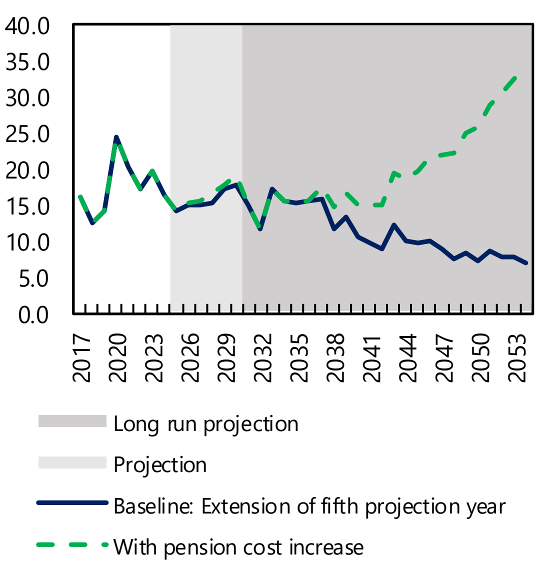
Pension Financing Needs



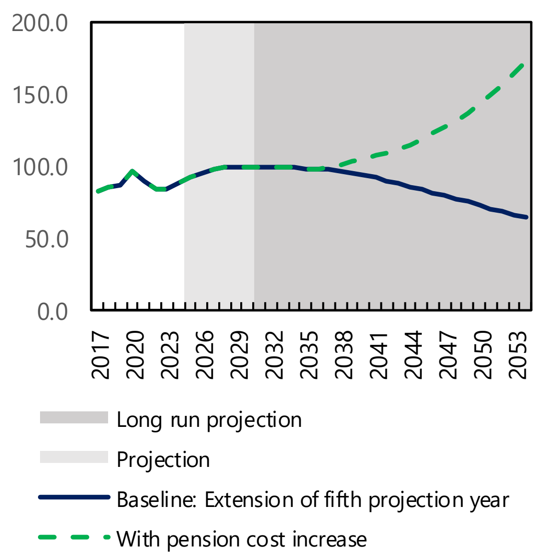
Total Benefits Paid



GFN-to-GDP Ratio

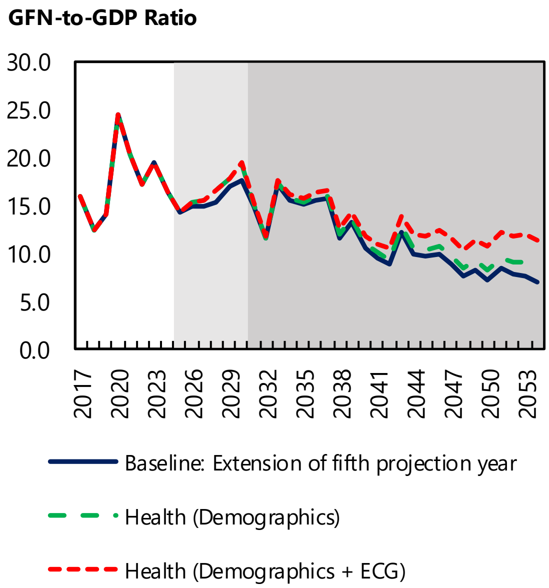


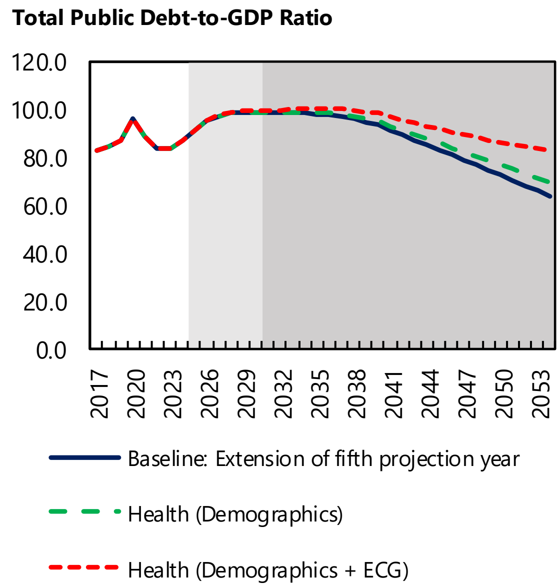
Total Public Debt-to-GDP Ratio



Commentary: Over the longer run, Brazil should continue with reforms to tackle risks arising from population aging, which will widen the deficits of the social security regimes.

Figure 9. Brazil: Demographics: Health



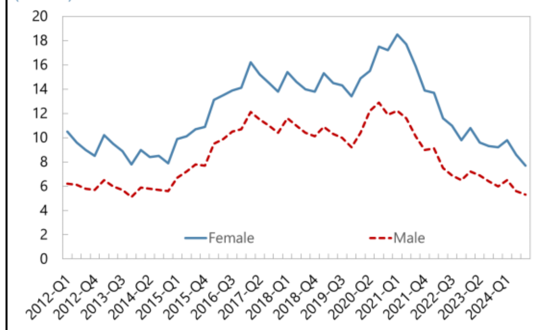


Commentary: Over the longer run, Brazil should continue with reforms to tackle risks arising from population aging which will pressure healthcare spending.

Annex VIII. Labor Force Participation, Bolsa Família, and Wage Disparities[1]

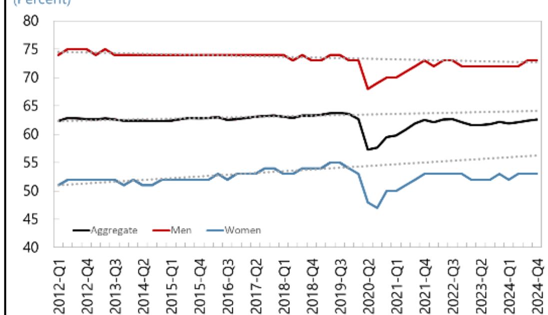
1. **Brazil's unemployment rate is at historically low levels but the labor force participation rate (LFPR) has not recovered to its pre-pandemic level and movement toward narrowing the gender gap has stalled.** Unemployment rates have fallen markedly for both male and female workers. LFPRs have rebounded from their pandemic lows but not back to pre-pandemic levels. The female LFPR has broadly declined since 2022, reversing some of its pre-pandemic increase, which had narrowed the male-female participation gap. With the expected drag to growth from an aging population, increasing labor force participation (LFP) represents an opportunity for supporting economic growth. Understanding the drivers of persistent gender gaps can inform the design of productivity-enhancing structural reforms.

Unemployment Rates
(Percent)



Sources: IBGE; IMF staff estimates.

Labor Force Participation Rates
(Percent)



Sources: IBGE; IMF staff estimates.
Notes: Doted lines show pre-pandemic trend.

2. **The gender gap in LFP is, as in other countries, driven largely by attending to household responsibilities.[2]** Responses from Brazil's National Household Sample Survey (PNADC) suggests that the need to take care of household chores, children, and other relatives accounts for the bulk of the difference between male and female LFPR (the orange area in the figure). This factor plays a larger role among low-income households, accounting for almost three-quarters of the gender gap among households with per person labor income of up to half the minimum wage, while accounting for almost half of the

Gender Gap in LFPR: By Household Labor Income Level (per capita)
(percentage points of each gender's working age population)

Sources: PNADC; IMF staff estimates

[1] This Annex was prepared by Bunyada Laoprapassorn (WHD).

[2] Data from ILOSTAT suggests that the Brazil's gender gap in LFP in in 2023 was about 20 percentage points, similar to the LA5 (ex. BRA) average of about 22 percentage points, but notable higher than the lowest gap of about 15 percentage points among the LA5 countries. For a cross-country perspective, see Background Paper 1 of the October 2024 IMF Regional Economic Outlook, Western Hemisphere.

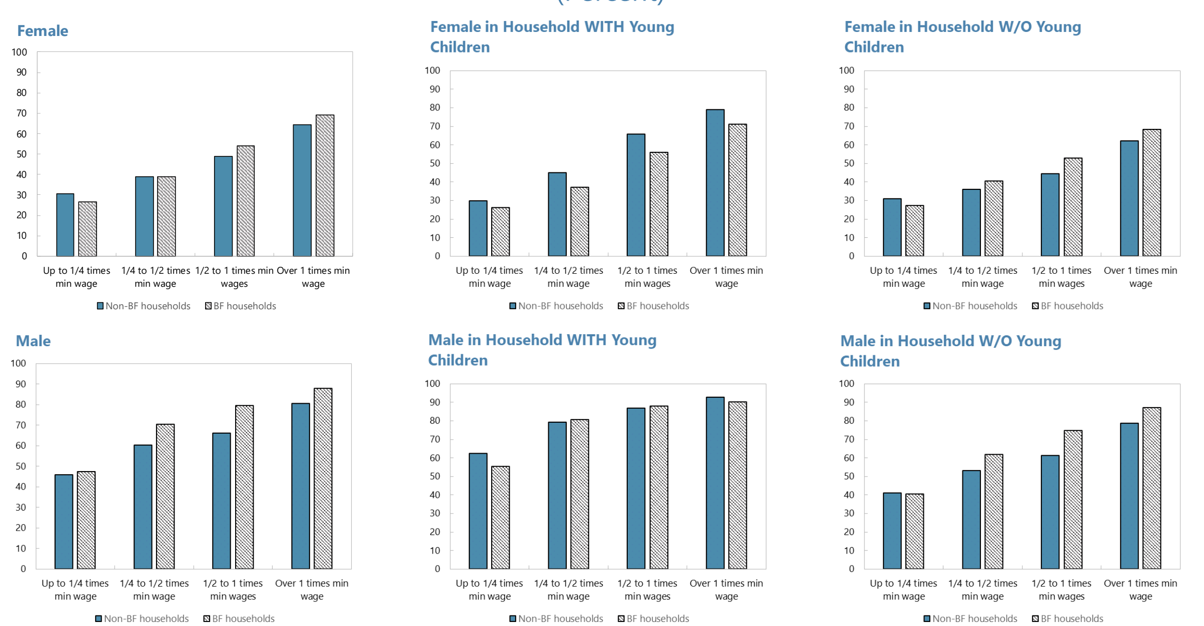
gender gap among households with per person labor income of over three times the minimum wage.

The Role of Transfer Payments

3. There is an ongoing debate about whether cash transfer payments associated with *Bolsa Família*—Brazil's flagship conditional cash transfer program—have affected LFP. A priori, the impact of cash transfers on LFP could be positive or negative. Through the income effect, transfers could motivate households to reallocate time away from paid work to leisure or unpaid work at home, reducing labor supply. But transfers could also help credit-constraint households overcome the upfront costs to work, such as outsourcing childcare and household duties, thus increasing LFP. Accordingly, existing empirical studies generally find mixed evidence of labor supply effects. Studies point to either modest negative effects of *Bolsa Família* on labor supply or positive effects for certain demographic groups or along some dimensions, such as reallocation of work from formal to informal.[3] At the same time, past studies generally use data that predates the pandemic—before the substantial expansion in social benefits that occurred after 2019. The average transfer from the *Bolsa Família* program increased from R$191 in December 2019 to R$681 in December 2023. More recently, Ferreira da Silva and Pires (2024) find a negative association between the recent expansion of the *Bolsa Família* program and the decline in LFPRs between 2022 and 2023. It is worth noting that the overall assessment of *Bolsa Família* in terms of economic wellbeing would also need to encompass dimensions beyond LFP, including medium-term impacts on human capital and other outcomes that go well beyond the scope of this annex.

LFPR by Group and by per Capita Income (Including Transfers), 2023

(Percent)



Sources: PNADC; IMF staff estimates.

[3] See, for example, De Brauw et al. (2015), Vidigal (2023), and Leite Mariante (2024).

4. An informal examination of the data indicates little connection between *Bolsa Família* benefits and lower LFP—except in the case of female LFP in households with young children. Data from the annual supplement of the PNADC for 2023 indicates, on average, that LFPRs are broadly similar or *higher* among *Bolsa Família*-recipient households relative to non-recipients (grey versus blue bars in the figure). However, when the sample is disaggregated based on whether the households include young children (up to 6 years old), female LFP is found to be lower in *Bolsa Família*-recipient households with young children.

5. To shed more light on the drivers of LFP and on the relationship between LFP and *Bolsa Família* payments, staff estimates a logit regression model that controls for a range of demographic and socio-economic characteristics. The specification estimated is as follows:

$$
\begin{aligned}
LFP_{it} = \ & \alpha \ + [\delta_1 I(children_{it}) + \delta_2 I(youth_{it}) + \delta_3 I(partner_{it})] + \ \gamma BF_{it} \\
& + BF_{it} \times [\beta_1 I(children_{it}) + \beta_2 I(youth_{it}) + \beta_3 I(partner_{it})] + \delta' X_{it} + \ \mu_i + t + \varepsilon_{it}
\end{aligned}
$$

where LFP_{it} denotes a dummy indicating whether individual i is in the labor force; $I(children_{it})$ equals 1 if the individual lives in a household with young children (up to 6 years old); $I(youth_{it})$ equals 1 if there are youths (age 7-18) in the household; $I(partner_{it})$ indicates whether the individual has a partner; X_{it} is a vector of control variables representing presence of the elderly (age 60 or over) in the household, race, age group, education level, per person household labor income group; and μ_i and t denote state-urban/rural and time (quarter) fixed effects. BF_{it} denotes a dummy indicating whether individual i is in a household receiving *Bolsa Família* benefits. As before, the data are for 2023 and come from the PNADC database.[4]

6. The estimation results (Table 1) indicate that factors associated with lower LFP among women include having young children or a partner in the household. The negative coefficients in the first column of Table 1 indicate these findings. At the same time, the presence of older children (aged 7-18 years) in the household is found to facilitate female LFP (positive coefficient estimate), consistent with the notion that older children require less intense supervision. For men, the presence of young children and (to a lesser extent) older children is associated with *greater* labor force participation, as is the presence of a partner (Table 1, column 3). The negative association between the presence of young children in the household and female LFP suggest the importance of improving access to quality and affordable childcare in facilitating LFP.

7. The results also suggest that the role of these factors in driving female LFP becomes stronger in households receiving *Bolsa Família* transfers. The results in column 2 of Table 1 suggest that the negative association between LFP and having young children or a partner in the household is stronger for women in *Bolsa Família*-recipient households. For men, the receipt of *Bolsa Família* transfers to the household is found to moderate the positive association between LFP and having young children. At the same time, the association between having a partner and male

[4] Only individuals of age 14-59 were included in the regressions in this exercise since the regressions control for the presence of the elderly (age 60 or over) in the household.

LFP is estimated to be more positive in households with *Bolsa Família* transfers, mirroring the negative effect for women. The positive association between LFP and having older children is found to be stronger for both men and women in *Bolsa Família*-recipient households. Finally, the estimation results in Table 1 suggest, overall, that *Bolsa Família* benefits are associated on average—holding all other variables at their observed values (average marginal effect)—with lower LFP for women and a neutral impact on LFP for men.

Table 1. Brazil: Logit Regression Estimates: Labor Force Participation

	Labor Force Participation			
	Female		Male	
		x BF		x BF
Young children	-0.248***	-0.201***	0.550***	-0.157***
	(0.027)	(0.030)	(0.028)	(0.040)
Youths	0.118***	0.074***	0.110***	0.188***
	(0.019)	(0.019)	(0.029)	(0.056)
Partner	-0.388***	-0.196***	0.194***	0.200***
	(0.032)	(0.029)	(0.026)	(0.050)
Additional controls:				
BF dummy	Y		Y	
Elderly in household dummy	Y		Y	
Race	Y		Y	
Education level	Y		Y	
Age group	Y		Y	
Head of household	Y		Y	
Urban	Y		Y	
Household labor income group	Y		Y	
State-urban/rural fixed effects	Y		Y	
Time fixed effects	Y		Y	
Average marginal effect of BF	-0.060***		0.001	
	(0.005)		(0.004)	

Standard errors in parentheses. Standard errors are clustered at state-urban/rural level.

* p<0.10 ** p<0.05 *** p<0.01

Sources: PNADC; IMF staff estimates.

8. **Additional analysis suggests that the expansion of social transfers since the pandemic affected negatively the relationship between *Bolsa Família* and LFP.** As already mentioned, the size of the cash transfers was significantly larger in 2023 than before the pandemic. The analysis now considers how the relation between LFP and *Bolsa Família* changed after the size of payments increased using a difference-in-difference approach. The difference in LFP between *Bolsa Família* beneficiaries and non-beneficiaries in 2023 is compared with the same difference before the pandemic (using data for 2018-2019).[5] The results (Table 2) show negative coefficient estimates for the interaction between the year 2023 and receipt of *Bolsa Família* benefits. When considered together with the earlier results for 2023 in Table 1—these results suggest that the average

[5] Specifically, the analysis adopts the specification $LFP_{iyq} = \alpha + \beta\, y2023_{iyq} \times BF_{iyq} + \theta BF_{iyq} + y2023_{iyq} + \delta'^{X_{iyq}} + \mu_i + y + q + \varepsilon_{it}$, where LFP_{iyq} indicates the labor force participation of individual i in year y quarter q and $y2023_{iyq}$ is an indicator variable for year 2023. The coefficient of interest is β. Given that the regressions control for presence of elderly in the households, only individuals aged 14-59 are included in the regressions in this exercise.

(marginal) relationship between *Bolsa Família* and LFP was more negative for women (and, for men, less positive) in 2023 than during the 2018-2019 period. Here, it is worth recalling that an overall assessment of *Bolsa Família* in terms of economic wellbeing would need to include considerations that go beyond the response of LFP in a specific period and also cover medium-term effects on human capital and other outcomes.

Table 2. Brazil: Logit Regression Estimates: *Bolsa Família* and LFP in 2023 vs. 2018-2019

	Labor Force Participation	
	Female	Male
y2023 x BF	-0.400***	-0.299***
	(0.024)	(0.033)
Additional controls:		
Bolsa Familia, young children, older children, partner, elderly in household, head of household, and urban	Y	Y
Race	Y	Y
Education level	Y	Y
Age group	Y	Y
Household labor income group	Y	Y
State-urban/rural fixed effects	Y	Y
Year fixed effects	Y	Y
Quarter fixed effects	Y	Y

Standard errors in parentheses. Standard errors are clustered at state-urban/rural level.

* p<0.10 ** p<0.05 *** p<0.01

Sources: PNADC; IMF staff estimates.

The Role of Wage Disparities

9. **Finally, the analysis assesses the size of gender wage disparities, which may also have contributed to the observed gender LFP gap in Brazil.** The analysis is based on the PNADC quarterly dataset, covering the 2012Q1 to 2024Q2 period. It finds evidence of gender wage disparities after controlling for observable characteristics, including the worker's education level, their industry, job position, age, and race.[6] As Table 3 reports, relative to male workers, the hourly wage of female workers is about R$3 per lower (column 3), and the monthly wage (column 2) is lower by almost R$700 (about 22 percent lower). Such a wage gap could plausibly be associated

[6] The estimated regression is $y_{it} = \alpha + [\beta_1 I(female_i) + \beta' X_{it}] + \rho_{it} + \mu_i + t + \varepsilon_{it}$ where y_{it} is the wage that individual i receives in quarter t, $I(female_i)$ is a variable that indicates if the individual is female, X_{it} is a vector of control variables for the highest education level attained, the age group, and race, and ρ_{it}, μ_i, and t denote job, state, and time fixed effects. Unless stated otherwise, Wage denotes real monthly earnings that an individual received for their main job, as reported by the individual in the PNADC.

with a lower incentive to participate in the labor market—other things equal. Effective implementation of the 2023 Pay Equity Law could help promote female LFP. The analysis also finds that the gender wage gap is pro-cyclical. As the aggregate unemployment rate falls by one percentage point, wages rise by 0.6 percent more for men than for women, indicating that the gender wage gap widens during an economic boom.

Table 3. Brazil: Regression Estimates: Wages

	(1)	(2)	(3)	(4)	
	Wage	Wage	Wage/Hour	ln(Wage)	
				Level	x Urate
Female	-768.280***	-687.951***	-2.965***	-0.305***	0.006***
	(33.580)	(33.002)	(0.144)	(0.015)	(0.001)
Education level	Y	Y	Y	Y	
Age group	Y	Y	Y	Y	
Race	Y	Y	Y	Y	
Quarter-Year FE	Y	Y	Y	N	
Unemployment rate	N	N	N	Y	
Position FE	Y	N	N	N	
Industry-Position FE	N	Y	Y	Y	
State FE	Y	Y	Y	Y	

Standard errors in parentheses. Standard errors are clustered at state-urban/rural level.
* p<0.10 ** p<0.05 *** p<0.01

Sources: PNADC; IMF staff estimates.

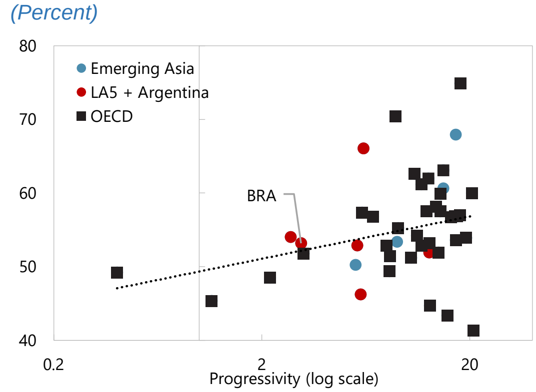
Annex IX. Fiscal and Social Policy Options for Raising Female Labor Force Participation[1]

1. Women in Brazil—as in most other economies worldwide—are less engaged in paid employment and are paid less than men. This pattern largely reflects engagement in unpaid care duties and vulnerable informal work, including domestic labor (Coelho et al., 2024). Using results from the TaxFit model, this Annex finds that governments seeking to boost female labor force participation (LFP) to address misallocation of women's talents and abilities and support productivity and inclusion can do so by making the tax system more progressive and strengthening the social safety net through enhanced parental leave and childcare services. Smoothing cliffs in benefits payments when taking up work can further raise female LFP.

2. The IMF's TaxFit model is a microsimulation model that computes the taxes and benefits applicable to households. These include income taxes, social security contributions, social assistance, care, family, and in-work-benefits, where eligibility for benefits is determined by gross earnings and family characteristics, such as the number and age of children and the labor market status of adults. TaxFit provides insights into the burden and generosity of tax and benefits systems across a number of Emerging Market and Developing Economies (EMDEs).[2] When paired with microdata, the model can estimate the fiscal costs of policy reforms and can incorporate behavioral responses by drawing on estimates of the elasticity of labor supply to net income taken from academic literature.

3. Results suggest that a more progressive tax system can strengthen women's incentives to participate in the labor force. Women tend to earn less than men and are more likely to be employed in the informal sector. Therefore, a more progressive tax system that reduces the net marginal tax rate at the lower end of the distribution would incentivize women to take up work, to work more hours, and to shift to formal employment.[3] The recent proposal to increase the PIT exemption threshold while raising tax on high-income individuals could improve progressivity, though the effect is expected on the higher end of the distribution. Further options include a reduction in the standard payroll tax while compensating it with a more progressive personal income schedule, eliminating regressive PIT

Female Labor Force Participation
(Percent)



Sources: IMF staff calculations using the IMF TaxFit and OECD TaxBen Model (2024 or latest year).
Note: Progressivity is measured using the Kakwani index (Kakwani, 1977). Higher values = More progressivity. LA5 = Brazil, Chile, Colombia, Mexico, Peru. Emerging Asia = Indonesia, Phlippines, thailand, Vietnam

[1] This Annex was prepared by Duncan MacDonald and Júlia Cots-Capell (both FAD).

[2] A version of the TaxFit model is available at: https://data.imf.org/en/Dashboards/TAXFIT%20Dashboard.

[3] See Diamond and Saez (2011); Heathcote, Storesletten, and Violante (2017); and Gayle and Shephard (2019).

deductions and exemptions, and closing PIT loopholes by lowering the threshold for the SIMPLES regime.

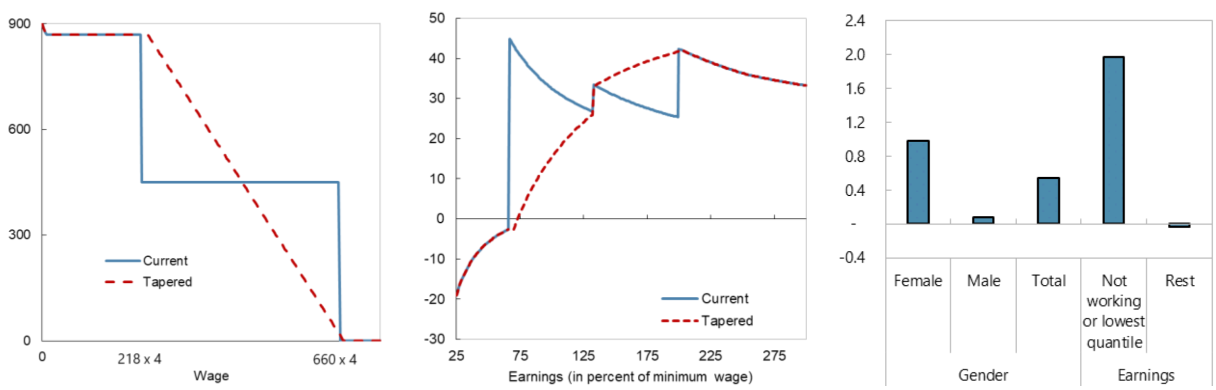
4. Extending paternity leave and childcare provisions could further support female LFP. Paid employment-protected maternity leave is well-established in Brazil and the duration is comparable to that of OECD countries. Nevertheless, Brazil's female LFP has been found to drop by around 37 percent upon giving birth relative to the pre-birth employment level (Kleven and others 2024), while male LFP has been found to be unaffected. Parental and paternity leaves can encourage shared responsibility in caregiving and reduce gendered labor market discrimination (Farré, and Libertad, 2017; Andersen, 2018). Staff estimates based on TaxFit model simulations suggest that the fiscal cost to align the private sector's current 5-day paternity leave with the 20-day public one could be a moderate R$2 billion, or less in the context of *Empresa Cidadã*.[4] In addition, further increasing the awareness, availability, accessibility, and quality of daycare services have proven to facilitate caregivers' return to work, which is more likely to affect women (World Bank, 2024).

Tapering *Bolsa Família* Exit upon Employment

Remaining *Bolsa Família* Benefits after Taking a Job
(R$; non-working-couple-two-kids)

Participation Tax Rate from Taking a Job
(R$; non-working-couple-two-kids)

Impact of Tapering on Formal Labor Force Participation
(Percent)



Sources: IMF staff calculations using the TaxFit model
Note: The left and middle charts show the remaining monthly benefits and participation tax rate for one spouse in a family of four (a married couple, both currently not working, with two young children) considering taking up a job. Participation tax rate is calculated as the sum of the (1) loss of *Bolsa Família* benefit, (2) loss (gain) of *Salário Família* benefits, (3) employee social security tax, and (4) personal income tax, divided by the wage of the job under consideration. The right chart shows the impact on labor market participation from tapering the *Bolsa Família* benefits, aggregating beneficiary households with different characteristics.

5. The *Bolsa Família* benefit is designed to be maintained, halved or terminated as the income of the beneficiary family increases upon employment. The flagship *Bolsa Família* program already has a carefully designed protection rule to encourage taking up work by allowing households to continue receiving half of the benefits for up to one year when their per-person

[4] Simulations assume that the government would finance the cost of the additional 15 days. Estimates derived from the wages of new fathers observed in the 2023 National Household Sample Survey (PNAD).

income rises above the poverty line, provided it is below half of the minimum wage.[5] However, the halving or terminating of benefits still leads to sharp increases in the estimated participation tax rate (PTR)—the effective cost from losing benefits as a share of wage when taking up work—across levels of earnings.[6] These tax schedule spikes can encourage bunching below the kink, discouraging work effort (Chetty, Friedman, and Saez 2013).

6. Further tapering the exit from *Bolsa Família* benefits upon employment would reduce disincentives from paid work. By gradually tapering benefits by R$0.5 for each R$1 of earnings above the amount of allowable earnings under current *Bolsa Família* regulations, workers will no longer face a steep drop in benefits when they take up meaningful work or increase their earnings above certain thresholds. TaxFit model simulations consider the potential earnings of *Bolsa Família* recipients if they were to enter formal work based on their age, gender, education, and the region where they live.[7] Participation tax rates on entering formal work are for both the current policy and the proposed tapering approach, and adjustments are made for behavioral employment responses.[8] The simulations imply that this indicative reform could boost LFP by 0.5 percentage points, predominantly amongst women, while generating R$3 billion in additional revenue through stronger work incentives.

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[5] The duration of these benefits was reduced to one year from two years in May 2025, while the income eligibility threshold was previously set to half of the minimum wage.

[6] The middle panel of the Figure shows the participation tax when one spouse in a family of four (a married couple, both currently not working, with two young children) considering taking up a job. The negative participation tax for very low-income earners reflects availability of *Salário Família* benefits upon employment. The three spikes in the Baseline scenario represent: 1) the initial halving of *Bolsa Família* benefits once household total earnings pass 67 percent of the minimum wage, 2) the discontinuation of the *Salário Família* benefit for dependent children once earnings pass 133 percent of the minimum wage, and 3) the complete discontinuation of *Bolsa Família* benefits once household earnings pass 50 percent of the minimum wage per-person (at 200 percent of the minimum wage).

[7] Simulated earning potentials for out-of-work individuals are predicted using a two-stage Heckman selection model that regresses earnings on indicators of educational attainment, gender, marital status, a proxy for work experience, and indicators of region and the presence of young children. Simulated earnings could be less than the annual minimum wage, which was assumed to reflect part-time working arrangements or sporadic employment throughout the year.

[8] Formal Labor force participation (LFP) estimates were generated by comparing participation tax rates (PTRs) under two scenarios: a baseline and a reform scenario. PTRs were calculated using simulated formal earnings (assumed to be at least minimum wage) for those *Bolsa Família* beneficiaries working informally or not working. We assume that both formal and informal earnings are reported fully and timely to the Unified Registry for Social Programs (CadÚnico) for the qualification of *Bolsa Família* as required by law. The change in work incentives was derived from these scenarios, with earned income elasticities (ranging from 0 to 0.8) applied to estimate the overall LFP change. Elasticities vary by gender and earnings level.

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Annex X. Brazil's Emissions Reduction Goals[1]

A. Brazil's Greenhouse Gas Emissions Profile

1. Brazil ranks among the world's largest GHG emitters by volume, although its emissions *per capita* are below those of many advanced and emerging market economies. According to the latest national GHG inventory published by the Ministry of Science, Technology, and Innovation, the country emitted a total of 2 billion metric tons (Gt) of CO2 equivalent (CO2e) in 2022. Emissions were primarily driven by three sectors: 0.4 Gt from Energy, 0.6 Gt from Agriculture, and 0.8 Gt from Land Use, Land Use Change, and Forestry (LULUCF). Approximately half of energy-related emissions originate in the transportation sector.

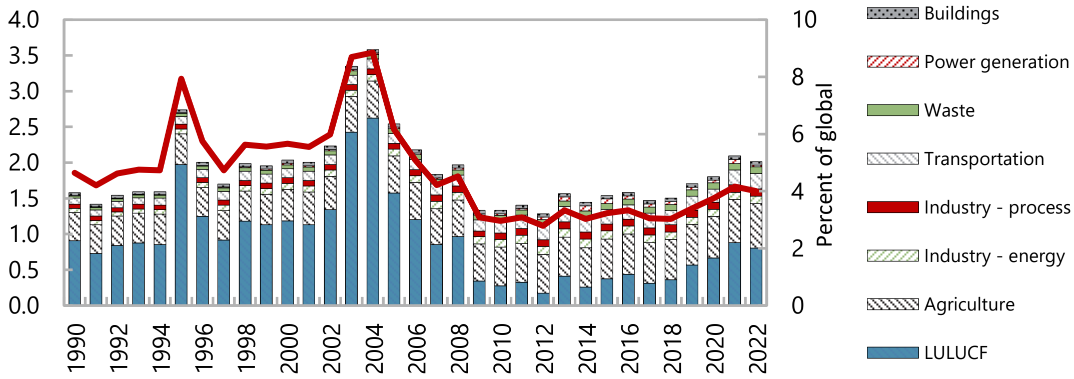
2. The sectoral composition of Brazil's GHG emissions contrasts sharply with that of a typical top 10 global emitter due to its exceptionally clean energy mix. In Brazil, energy-related emissions account for less than one-third of total emissions, reflecting the country's exceptionally clean electricity mix. In 2022, renewable sources (hydropower, solar, and wind) comprised 87.1 percent of the national electricity supply, placing Brazil among the global leaders in clean energy share. The transportation sector has also long benefited from the institutionalization of biofuels. As of 2022, Brazil was the world's second-largest biofuel producer, with biofuels accounting for 22 percent of the transport energy matrix (IEA, 2023).

3. Since the early 2000s, Brazil has achieved substantial reductions in emissions through a series of action plans aimed at curbing illegal deforestation. Between 2004 and 2012, emissions from Land Use, Land Use Change, and Forestry (LULUCF) declined by 2.4 Gt CO2e, with annual deforestation rates falling by approximately 84 percent in the Legal Amazon, 69 percent in the Cerrado, and 75 percent in the Atlantic Forest. This progress was made possible by stricter law enforcement, improved public sector coordination, increased funding for the Brazilian Institute of Environment and Renewable Natural Resources (IBAMA), development of advanced monitoring systems, and expanded use of conservation units. Notably, agricultural production—one of the major drivers of deforestation in the country— has almost tripled in the same timeframe.

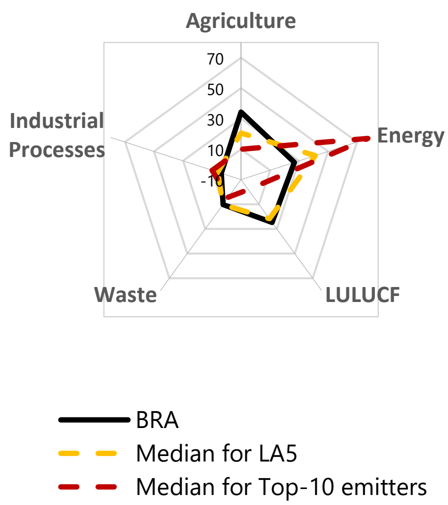
4. However, progress stalled after 2012, leading to a partial rebound in emissions by 2022. Between 2012 and 2022, Brazil's annual GHG emissions increased as a rebound in deforestation added 0.6 Gt CO2e to emissions from LULUCF. While emissions from the expanding agriculture sector also rose, the magnitude was significantly smaller and largely offset by a decline in energy-related emissions. Between 2012 and 2022, agricultural emissions increased by 0.08 Gt CO2e, while energy-related emissions declined by 0.05 Gt CO2e.

[1] Prepared by Zamid Aligishiev (WHD) and Karlygash Zhunussova (FAD), with inputs from Sunalika Singh (FAD) and Damaris Garza (WHD).

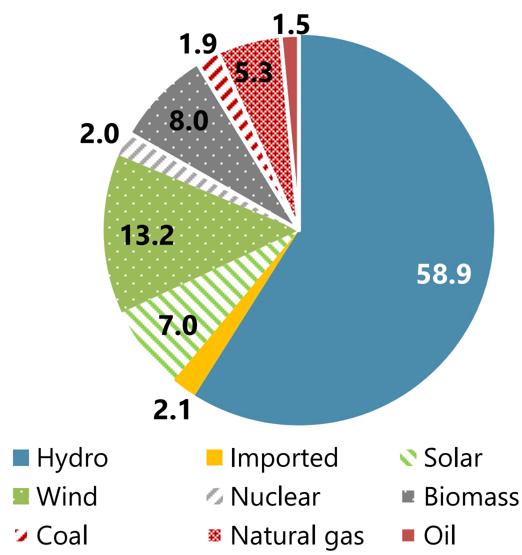
Sectoral GHG Emissions and the Electricity Matrix
(Gt CO2e)



Sectoral Emissions versus Peer Groups
(Percent of total GHG emissions)



Electricity Matrix
(Percent of total supply)



Sources: IMF staff calculations, Ministério da Ciência, Tecnologia e Inovação, Empresa de Pesquisa Energética, IMF Climate Change Indicators Dashboard, World Economic Outlook. Note: CO2 equivalents calculated using the Fifth Assessment Report (AR5) Global Warming Potential (GWP) values.

B. Brazil's Ecological Transformation Plan: Updates and Initiatives

5. **Brazil increased its emissions-reduction pledges with the 2023 and 2024 NDC updates.** The 2023 update of its Nationally Determined Contribution (NDC) reinstated the original absolute emissions target of 1.2 Gt CO2e by 2030 and pledged to eliminate illegal deforestation by 2030. The 2024 update introduced a new target range for 2035, between 0.85 and 1.05 Gt CO2e. These targets correspond to a 53 percent reduction in emissions below 2005 levels by 2030 and a reduction of 59–67 percent by 2035. Brazil's NDC includes the goal of net-zero GHG emissions by 2050.

6. In 2023, the authorities committed to developing a new, comprehensive national plan (*Plano Clima*) to guide the implementation of its NDC targets. *Plano Clima* will incorporate a National Adaptation Strategy and a National Mitigation Strategy supported by detailed thematic and sectoral plans, which are expected to be finalized by COP30 in November 2025.

7. The Ministry of Finance's Ecological Transformation Plan serves as a key lever for implementing Brazil's NDC ambition. The plan aims to foster productivity growth by enhancing Brazil's carbon market, fostering diffusion of decarbonization technologies across sectors, and promoting resilience-building projects, while catalyzing the necessary financing. The authorities have made significant progress on the plan's implementation:

- The Emission Trading System (ETS) was approved by Congress and enacted into law in December 2024 (Law No. 15,042 of 12/11/2024), providing a legal framework for the establishment of a regulated carbon market. The ETS is expected to become operational by 2030 and cover up to 15 percent of the nation's emissions. The system will cover large GHG emitters in all sectors apart from agriculture.
- The second issuance of bonds under the country's Sovereign Sustainable Bond Framework raised $2 billion in June 2024. The bonds were issued with a 7-year maturity and an annual yield of 6.375 percent. The proceeds will be directed toward projects and social initiatives via the Climate Fund. The first issuance took place in November 2023.
- The *Eco Invest Brasil* program launched in February 2024 aims to address key barriers and risks to channeling foreign capital into private sustainable projects (for example, high financing costs, exchange rate volatility, and limited access to long-term FX hedging instruments). The program includes provisions for blended finance, dedicated credit lines for firms exposed to currency mismatch risk, and measures to deepen the long-term FX derivatives market with assistance from the Inter-American Development Bank.
- Brazil's Sustainable Taxonomy, a classification scheme to recognize low-emissions corporations and projects, led by the Ministry of Finance with participation of a wide range of public entities, including the BCB, is expected to be operational by mid-2025. It is expected to play a crucial role in defining qualification criteria for various climate-related financing instruments.

8. Stricter biofuel blending mandates were established to further decarbonize the energy matrix. The *Fuels of the Future* bill, enacted in October 2024 (Law No.14,993 of 10/08/2024), aims to reduce GHG emissions by promoting greater use of biofuels and sustainable aviation fuels. The legislation sets targets for increasing the mandatory share of biodiesel in diesel fuel to 20 percent and ethanol blend in gasoline to 35 percent by 2030, subject to technical feasibility. Additionally, it mandates a 10 percent reduction in emissions from domestic aviation by 2037.[2]

9. Planned investments in renewable electricity could expand Brazil's installed capacity by nearly 15 percent relative to current levels. According to the National Electric Energy Agency (ANEEL), the country aims to add 13.1 GW of wind power, 8.5 GW of solar energy, and 9.2 GW of

[2] Relative to a business-as-usual scenario.

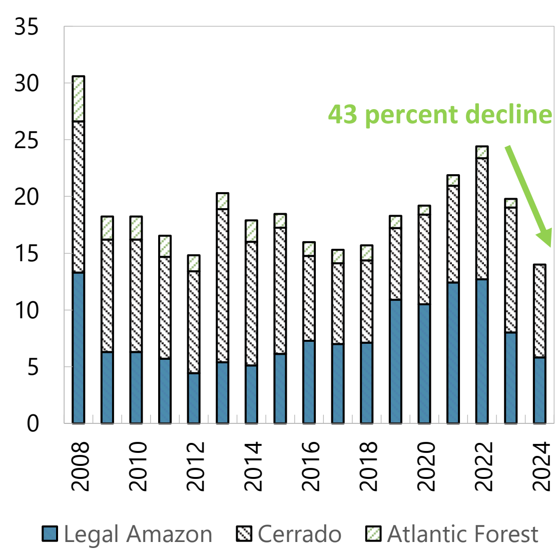
hydropower. These investments will help Brazil maintain its exceptionally clean electricity mix amid rising power demand driven by economic growth and increasing temperatures.

C. Progress in Curbing LULUCF Emissions in 2023 and 2024

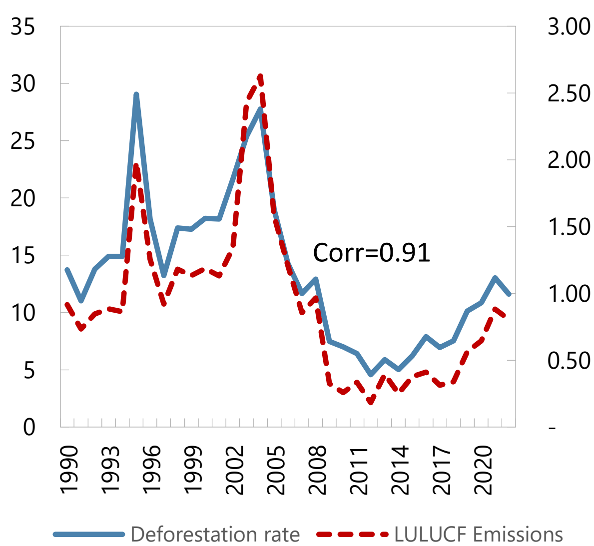
10. Impressive progress has been made in the fight against illegal deforestation in 2023 and 2024. In early 2023, Brazil updated its Action Plan for Deforestation Prevention and Control in the Legal Amazon (PPCDAm), outlining measures to achieve zero illegal deforestation through stronger enforcement of the Forest Code—through fines, embargoes, and other regulatory actions. Over the next two years, deforestation rates declined by 54 percent in the Amazon biome and by 24 percent in the Cerrado biome.

11. Staff analysis suggests that LULUCF emissions fell by a cumulative 0.43 Gt CO2e in 2023-2024. Official LULUCF emissions data are submitted to the UNFCCC with a two-year lag, so staff estimates the emissions for 2023 and 2024 by taking advantage of the strong correlation between LULUCF emissions and deforestation rates from the National Institute for Space Research (INPE) monitoring system. Based on estimates of a regression model using Brazil's historical LULUCF emissions and deforestation increments by biome, the analysis projects that LULUCF emissions declined by 0.2 Gt CO2e in 2023 and by 0.23 GtCO2e in 2024.

Deforestation by Biome
(Thousand square kilometers)



Deforestation in Legal Amazon and LULUCF Emissions
(Thousand square kilometers and Gt CO2e)



Sources: IMF staff calculations, Ministério da Ciência, Tecnologia e Inovação , Instituto Nacional de Pesquisas Espaciais.
Note: The LHS figure presents deforestation increments, while the RHS figure shows deforestation rates. Increments offer a more precise measure of annual forest loss but are only available for the Legal Amazon starting in 2008.

D. Quantitative Assessment of Emissions Trajectory through 2030

12. Staff's quantitative assessment of emissions trajectories relies on the Climate Policy Assessment Tool (CPAT), a model developed jointly by the IMF and the World Bank. CPAT provides estimates of fuel use and GHG emissions by main emitting sectors—power, industry, transport, buildings, agriculture, and waste—as well as the emissions impact of a diverse range of pricing and non-pricing mitigation policies. Details on the methodology and data sources are provided in Black and others (2023). The baseline GHG trajectory under current policies is complemented by an uncertainty range that captures alternative assumptions for CPAT parametrization.[3]

13. The CPAT scenario assumptions are calibrated to take into account existing mitigation policies in Brazil. For the power and industry sector emissions, upcoming investments in electricity generation from the National Energy Expansion Plan 2034 (13.1 GW in wind, 8.5 GW in solar, 9.2 GW in hydro, 19.3 GW in natural gas) are included, in addition to estimates of the preliminary impact of the upcoming ETS. For transport emissions, the analysis incorporates existing and upcoming biofuel blending mandates (bioethanol 27 percent and biodiesel 15 percent from 2026 and onwards). For forestry emissions, the analysis assumes zero illegal deforestation through enforcement of the forest code and gradual restoration of 12 million hectares of native vegetation by 2030. For emissions from extractive industries, a planned 16 percent increase in oil and gas production between 2021 and 2029 the from *Petrobras* business plan is assumed for 2025-2029.

14. The analysis finds that the reduction in LULUCF emissions under current policies—if fully implemented—play a central role in achieving Brazil's emission-reduction targets. According to Roe et al. (2021), Brazil has the potential to decrease emissions from forestry by approximately 1 Gt CO2e annually on average up to 2050, utilizing options that cost less than $100 per ton reduced. While curbing emissions related to LULUCF will become increasingly expensive as illegal deforestation approaches zero, this strategy remains the most effective path to seizing substantial mitigation gains by 2030—especially keeping in mind Brazil's past success in cutting

[3] For emissions related to energy, industrial processes, and product usage: income and price elasticities are increased by one standard deviation compared to the baseline. GDP growth is raised by 50 percent, and international prices are reduced by 50 percent relative to the baseline in the high-emissions scenario. The assumptions are reversed for the lower end of the emissions range. Additionally, confidence intervals have been included around the regression coefficients concerning reduction intensity due to autonomous technological advancements in oil and natural gas extraction for emissions from extractive industries. *For agricultural and waste emissions:* confidence intervals have been incorporated around the regression coefficients related to intensity reductions attributed to autonomous technological advancements (Parry et al., 2022), maintaining the same assumptions regarding GDP growth and international prices as noted above. For Land Use, Land-Use Change, and Forestry (LULUCF) emissions: confidence intervals are provided around the regression coefficients concerning abatement cost curve parameters, based on the work of Favero and Austin (2024).

emissions from the sector without undermining growth of its principal associated economic activity: agriculture.[4]

15. CPAT simulations indicate that current policies would allow Brazil to close its mitigation gap with respect to the 2030 NDC target. Under current policies, Brazil can reduce total emissions by 0.45 Gt CO2e, primarily through minimizing deforestation and promoting reforestation. The trajectory of energy-related emissions under these policies declines below the BAU scenario in which emissions are assumed to rise over time commensurately with GDP growth.[5] The reduction in emissions compared with the BAU scenario is larger closer to 2030 when the ETS is set to become operational. Achieving zero illegal deforestation would lead to net negative emissions from LULUCF, as planned reforestation surpasses legal deforestation in the country. This approach would enable Brazil to meet its 2030 NDC target.

16. Intensification of droughts, higher fugitive emissions, an uptick in legal deforestation, and higher commodity prices pose risks to the baseline CPAT projection. Increased incidents of droughts may reduce hydropower capacity while power demand keeps rising, potentially leading to greater reliance on fossil fuels and setbacks in the decarbonization of the electricity mix (Chen et al., 2024). Although Brazil's flaring intensity is one of the lowest among major producers, expanding oil extraction in the future could lead to higher emission volumes from the sector. Another risk is that progress toward eliminating illegal deforestation could lead to an increase in legal deforestation, as concessions are granted to accommodate local populations. Rising global beef and soybean prices could also increase deforestation by shifting the trade-offs faced by small, informal farmers (Hanusch, 2023).[6]

17. To safeguard progress in the face of such risks, Brazil can leverage complementary measures. While current policies are estimated to enable the country to achieve desired emission cuts, the planned reduction can be secured through additional steps. In agriculture, scaling up climate-smart practices and introducing feebate schemes—linking financial incentives to emissions intensity—can promote more sustainable production while limiting fiscal costs. In the energy sector, accelerating investments in grid infrastructure, energy storage, and decentralized generation would accommodate the planned expansion of renewables and reduce reliance on fossil fuels. Reforming land tenure, rural tax policies, and subsidies that currently incentivize deforestation could further support efforts in curbing LULUCF-related emissions.

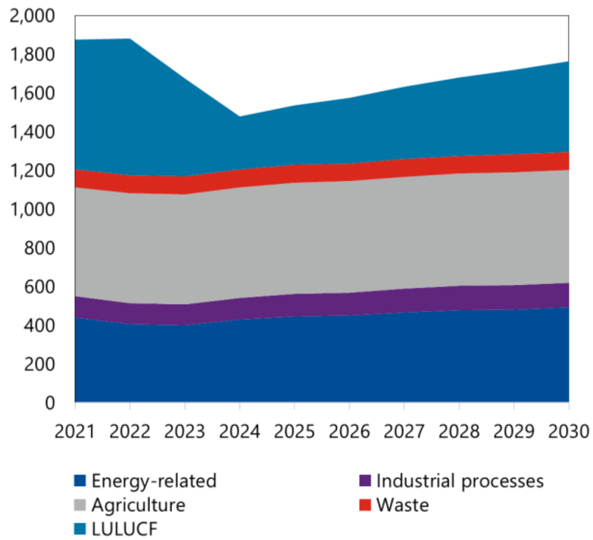
[4] As most current deforestation in Brazil is illegal, eliminating illegal deforestation would achieve most of the emissions reductions from LULUCF (Brito et al., 2019; Koch et al. 2019). World Bank (2023) suggests Brazil can achieve zero illegal deforestation by 2030 without harmful effects on GDP or export revenues. This would however require a comprehensive policy approach with effective enforcement of forest law and incentives for forest conservation, afforestation/reforestation, and higher agricultural productivity.

[5] The business-as-usual (BAU) scenario assumes that GHG emissions rise with GDP and population growth. In the LULUCF sector, BAU also assumes that enforcement of the forest code reverts to levels seen before 2023.

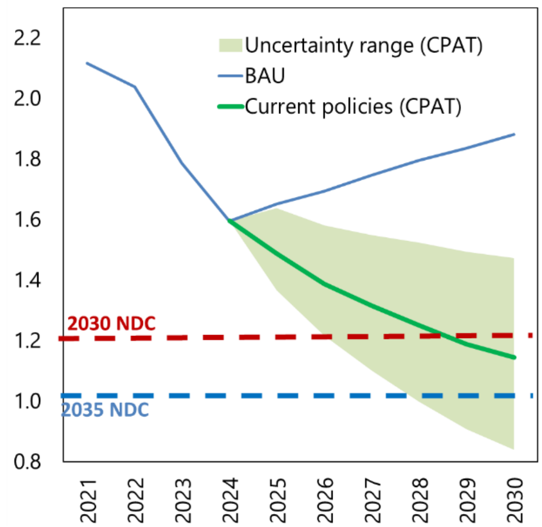
[6] When informal farmers face increasing external demand, the economic incentives for deforestation can intensify as the expected gains from clearing land may surpass perceived costs.

Figure 1. Brazil: CPAT Projections and Gas Flaring

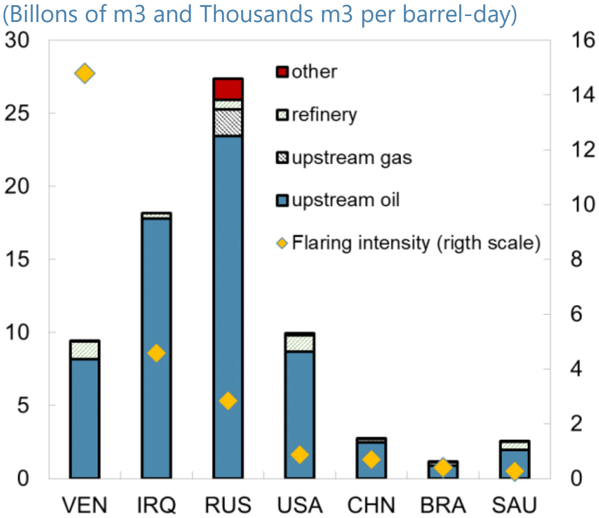
Projected Emissions under BAU
(Million tons of CO2e)



GHG Emissions (incl. LULUCF) vs. Paris Pledge (NDCs)
(Gigatons of CO2 equivalent, including LULUCF)



Gas Flaring Volume and Intensity
(Billons of m3 and Thousands m3 per barrel-day)



Sources: IMF staff calculations using CPAT, Ministério da Ciência, Tecnologia e Inovação, Instituto Nacional de Pesquisas Espaciais, World Bank's Global Gas Flaring Tracker (2021).

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Annex XI. Data Issues[1]

Table 1. Brazil: Data Adequacy Assessment for Surveillance

Data Adequacy Assessment Rating 1/							
A							
Questionnaire Results 2/							
Assessment	National Accounts	Prices	Government Finance Statistics	External Sector Statistics	Monetary and Financial Statistics	Inter-Sectoral Consistency	Median Rating
	A	A	A	A	A	A	A
Detailed Questionnaire Results							
Data Quality Characteristics							
Coverage	A	A	B	A	A		
Granularity 3/	A		A	A	A		
			A		A		
Consistency			B	A		A	
Frequency and Timeliness	A	A	A	A	A		

Note: When the questionnaire does not include a question on a specific dimension of data quality for a sector, the corresponding cell is blank.
1/ The overall data adequacy assessment is based on staff's assessment of the adequacy of the country's data for conducting analysis and formulating policy advice, and takes into consideration country-specific characteristics.
2/ The overall questionnaire assessment and the assessments for individual sectors reported in the heatmap are based on a standardized questionnaire and scoring system (see IMF *Review of the Framework for Data Adequacy Assessment for Surveillance*, January 2024, Appendix I).
3/ The top cell for "Granularity" of Government Finance Statistics shows staff's assessment of the granularity of the reported government operations data, while the bottom cell shows that of public debt statistics. The top cell for "Granularity" of Monetary and Financial Statistics shows staff's assessment of the granularity of the reported Monetary and Financial Statistics data, while the bottom cell shows that of the Financial Soundness indicators.

A	The data provided to the Fund are adequate for surveillance.
B	The data provided to the Fund have some shortcomings but are broadly adequate for surveillance.
C	The data provided to the Fund have some shortcomings that somewhat hamper surveillance.
D	The data provided to the Fund have serious shortcomings that significantly hamper surveillance.

Rationale for staff assessment. Data is generally timely, comprehensive, and accurate for surveillance across all sectors. Nevertheless, shortcomings exist in some areas of fiscal data, and addressing these shortcomings would help facilitate surveillance work. For example, fiscal statistics are not fully consistent according to a recent IMF TA report (IMF, 2025). There are about 1 percent of GDP discrepancies in financing when measured above and the below the line in the fiscal data compiled broadly consistent with GFSM 2014, possibly from the coverage of institutional units, scope of instruments, moments of recording, and valuation (including use of accrual and cash) in the compilation. Materialized *precatórios* are treated as expenditures and not directly reflected in the Treasury's debt statistics, which can complicate assessing Brazil's public debt stock.

Changes since the last Article IV consultation. Not applicable for Brazil.

[1] This Annex was prepared by Bunyada Laoprapassorn (WHD).

Corrective actions and capacity development priorities. The authorities received technical assistance from the IMF on government finance statistics in 2024 and have been working on the implementation of the proposed five-year work plan to strengthen the alignment of Brazil's GFS with the GFSM 2014 framework, with the main focus in 2025 on revising the sectorization of the general government. Continued efforts to improve the data quality and methodological compilation of government finance statistics for better alignment with best international standards and practices (including alignment with GFSM 2014) remain capacity development priority.
Use of data and/or estimates in Article IV consultations in lieu of official statistics available to staff. Staff do not use data and/or estimates lieu of official statistics.
Other data gaps. Not applicable for Brazil.

Table 2. Brazil: Data Standards Initiatives

Brazil adheres to the Special Data Dissemination Standard (SDDS) Plus since November 2019 and publishes the data on its National Summary Data Page. The latest SDDS Plus Annual Observance Report is available on the Dissemination Standards Bulletin Board (https://dsbb.imf.org/).

Table 3. Brazil: Table of Common Indicators Required for Surveillance

As of May 30, 2025

	Data Provision to the Fund				Publication under the Data Standards Initiatives through the National Summary Data Page			
	Date of Latest Observation	Date Received	Frequency of Data[6]	Frequency of Reporting[6]	Expected Frequency[6,7]	Brazil[8]	Expected Timeliness[6,7]	Brazil[8]
Exchange Rates	May 2025	May 2025	D	D	D	...	...	...
International Reserve Assets and Reserve Liabilities of the Monetary Authorities[1]	April 2025	May 2025	M	M	M	...	1W	...
Reserve/Base Money	May 2025	May 2025	D	W	M	M	2W	2W
Broad Money	April 2025	May 2025	M	M	M	M	1M	4W
Central Bank Balance Sheet	April 2025	May 2025	M	M	M	M	2W	2W
Consolidated Balance Sheet of the Banking System	March 2025	April 2025	M	M	M	M	1M	4W
Interest Rates[2]	May 2025	May 2025	M	M	D	...	...	...
Consumer Price Index	April 2025	May 2025	M	M	M	M	1M	NLT 15D
Revenue, Expenditure, Balance and Composition of Financing[3]–General Government[4]	April 2025	May 2025	Q[9]	Q[9]	A/Q	A/Q	2Q/12M	2Q
Revenue, Expenditure, Balance and Composition of Financing[3]–Central Government	April 2025	May 2025	M	M	M	M	1M	1M
Stocks of Central Government and Central Government-Guaranteed Debt[5]	April 2025	May 2025	M	M	Q	M	1Q	1M
External Current Account Balance	April 2025	May 2025	M	M	Q	M	1Q	NLT 4W
Exports and Imports of Goods and Services	April 2025	May 2025	M	M	M	M	8W	NLT 3W
GDP/GNP	Q1 2025	May 2025	Q	Q	Q	Q	1Q	70D
Gross External Debt	Q1 2025	April 2025	Q	Q	Q	Q	1Q	NLT 90D
International Investment Position	Q1 2025	April 2025	Q	Q	Q	Q	1Q	3M

[1] Includes reserve assets pledged or otherwise encumbered, as well as net derivative positions.
[2] Both market-based and officially determined, including discount rates, money market rates, rates on treasury bills, notes and bonds.
[3] Foreign, domestic bank, and domestic nonbank financing.
[4] The general government consists of the central government (budgetary funds, extra budgetary funds, and social security funds) and state and local governments.
[5] Including currency and maturity composition.
[6] Frequency and timeliness: ("D") daily; ("W") weekly or with a lag of no more than one week after the reference date; ("M") monthly or with lag of no more than one month after the reference date; ("Q") quarterly or with lag of no more than one quarter after the reference date; ("A") annual.; ("SA") semiannual; ("I") irregular; ("NA") not available or not applicable; and ("NLT") not later than.
[7] Encouraged frequency of data and timeliness of reporting under the e-GDDS and required frequency of data and timeliness of reporting under the SDDS and SDDS Plus. Any flexibility options or transition plans used under the SDDS or SDDS Plus are not reflected. For those countries that do not participate in the IMF Data Standards Initiatives, the required frequency and timeliness under the SDDS are shown for New Zealand, and the encouraged frequency and timeliness under the e-GDDS are shown for Eritrea, Nauru, South Sudan, and Turkmenistan.
[8] Based on the information from the Summary of Observance for SDDS and SDDS Plus participants, and the Summary of Dissemination Practices for e-GDDS participants, available from the IMF Dissemination Standards Bulletin Board (https://dsbb.imf.org/). For those countries that do not participate in the Data Standards Initiatives, as well as those that do have a National Data Summary Page, the entries are shown as "..."
[9] The fiscal balance and composition of financing are provided monthly, whereas revenue and expenditure data are available on a quarterly basis.

Annex XII. Past IMF Recommendations and Implementation Status

Past IMF Recommendations	Implementation Status
Fiscal Policy	
Implement a sustained and more ambitious fiscal effort that puts public debt on a firmly downward path and opens space for priority investments.	The 2026 draft Budget Guidelines Law reaffirmed the federal primary fiscal surplus target of 0.25 percent of GDP for 2026 and the indicative target path to a surplus of 1.25 percent of GDP by 2029.
Pursue spending reforms that tackle budget rigidities remains a priority.	The spending package adopted in December 2024 will yield annual savings rising to 0.4 percent of GDP by 2030. The new 2.5 percent cap on the real growth rate of the minimum wage is a step in the right direction. Scrutiny of eligibility to social programs will generate savings in the near-term.
Advance planned revenue-neutral indirect tax reform that streamlines tax regime and reduces the cost of tax compliance.	Enaction of Complementary Law No. 214/2025, which establishes and regulates the dual VAT system. Passage of the remaining bills specifying the governance structure for joint revenue administration, excise tax regulation, and administrative process is ongoing.
Monetary and Exchange Rate Policies 1/	
Ensure flexibility on the pace and length of the easing cycle given continued labor market resilience and inflation expectations above target-consistent levels.	The BCB's pivot to a tightening cycle in September 2024 was appropriate and consistent with bringing inflation and inflation expectations back to the 3 percent target.
Financial Sector Policy	
Address household debt vulnerabilities and protect consumers.	The government's *Desenrola* program has aimed at restructuring existing household debt owed to different creditors through a digital application for indebted households. The authorities introduced a new private payroll loan program aiming to reduce credit costs.
Structural and Climate Policies	
Pursue supply-side reforms to boost potential growth, including tackling spending rigidities to make room for public investment.	Recent advances in competition in Brazil's fintech sector, supported by enabling regulations, has reduced lending rates and improved financial intermediation efficiency, which bodes well for reducing firms' cost of capital.
Mobilize financing for the Ecological Transformation Plan.	The second Eco Invest Brazil auction took place in April 2025, mobilizing funds to finance projects for restoring degraded lands and converting them into sustainable productive systems Additionally, authorities successfully completed the second issuance of sustainability bonds in June 2024 and intend to continue their engagement in this market moving forward.
1/ See Annex XI for an update on implementation of the 2018 FSAP recommendations.	

Annex XIII. Implementation of Key FSAP Recommendations[1]

Recommendations	Time	Authorities' Actions
Micropudential 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	The BCB, CVM, Previc and SUSEP finalized the "Financial Stability Coordination Law". The draft bill is now being discussed with the Ministry of Finance.
Strengthen the crisis management institutional arrangements for inter-agency cooperation and exchange of information, including for contingency planning.	MT	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 BCB's contingency planning has already been implemented.
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	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.

[1] The description of authorities' actions in this table is based on information provided by the Brazilian authorities. ST refers to "short-term" and MT refers to "medium-term".

Recommendations	Time	Authorities' Actions
Increase resources of CVM and SUSEP.	ST	Measures are being taken to strengthen the institutional capacity of CVM and SUSEP. 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.
Systemic Risks		
Use Pillar 2 capital requirements to handle bank-specific risk profiles to boost their resilience as needed and to mitigate risks.	ST	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 identified as having an exposure not adequately considered in Pillar 1 capital requirements – according to BCB's estimates – in one of these two approaches have 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	The following actions have been completed: (i) CMN has 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. (ii) 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 exposure (natural person and legal entity) 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. (iii) 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. Other initiatives under analysis or being drafted include: (i) Regulation on prudential treatment of transactions with related parties. (ii) Requirement of producing concentration risks data on a regular basis. (iii) Structured assessment of country, transfer and indirect risk. (iv) IFRS9 regulation has been implemented since January 2025.

Recommendations	Time	Authorities' Actions
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	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 covers over 90% of Brazil's fund industry, including more than 28,000 Investment Funds. CVM Resolution No. 175, dated December 23, 2022, included Regulatory Annexes covering all existing types of investment funds in Brazil.
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	The granular data sharing depends on legal provisions and on the establishment of partnerships among the supervisors. The creation of the "Financial Stability National Committee" would partially bridge this gap.
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	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	The BCB does not plan to 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. The recommendation of indemnity of the MoF in case of ELA in systemic circumstance will not be implemented since it may increase moral hazard risk and the National Treasury will have to indemnify the BCB in case of BCB balance sheet loss under the current arrangement. 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.

Recommendations	Time	Authorities' Actions
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	The FGC has amended its by-laws to establish communication to the BCB prior to each assistance operation. The BCB has signed a MoU with the FGC to grant access to detailed information on financial institutions that are FGC members. The Administration Committee of the MoU was set as a permanent forum for information sharing and collaboration between the parties to facilitate FGC assessment and avoid the use of lending to maintain weak or insolvent banks in operation. The recommendation to transform the FGC into a fully public-owned institution will not be implemented.
Financial Integrity		
Complete the national AML/CFT risk assessment and introduce a risk-based approach specific to AML/CFT supervision.	ST	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
		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.
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.

Recommendations	Time	Authorities' Actions
		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.

INTERNATIONAL MONETARY FUND

BRAZIL

June 27, 2025

STAFF REPORT FOR THE 2025 ARTICLE IV CONSULTATION—INFORMATIONAL ANNEX

Prepared By

The Western Hemisphere Department
(In consultation with other departments)

CONTENTS

FUND RELATIONS

(As of June 13, 2025)

Membership Status: Joined January 14, 1946; Article VIII

General Resources Account:

	SDR Million	Percent Quota
Quota	11,042.00	100.00
Fund Holdings of Currency (Exchange Rate)	8,155.90	73.86
Reserve Tranche Position	2,895.57	26.22
Lending to the Fund		
New Arrangement to Borrow	0.00	

SDR Department:

	SDR Million	Percent of Allocation
Net Cumulative Allocation	13,470.34	100.00
Holdings	14,394.01	106.86

Outstanding Purchases and Loans: None

Financial Arrangements:

Type	Date of Arrangement	Expiration Date	Amount Approved	Amount Drawn
			(SDR Million)	
Stand-by	09/06/2002	03/31/2005	27,375.12	17,199.64
Of which: SRF	09/06/2002	09/05/2003	7,609.69	7,609.69
Stand-by	09/14/2001	09/05/2002	12,144.40	11,385.37
Of which: SRF	09/14/2001	09/05/2002	9,950.87	9,950.87
Stand-by	12/02/1998	09/14/2001	13,024.80	9,470.75
Of which: SRF	12/02/1998	12/01/1999	9,117.36	6,512.40

Projected Payments to the Fund (SDR million; based on existing use of resources and present holdings of SDRs):

	Forthcoming				
	2025	2026	2027	2028	2029
Principal		0.00	0.00	0.00	0.00
Charges/Interest		0.06	0.06	0.06	0.06
Total		**0.06**	**0.06**	**0.06**	**0.06**

Safeguards Assessments: A safeguards assessment of the Banco Central do Brasil (BCB) was completed in June 2002 and updated in March 2005.

Exchange Rate Arrangement: Since January 18, 1999, Brazil's de facto and de jure foreign exchange regime has been classified as floating. Brazil accepted the obligations of Article VIII, Sections 2(a), 3, and 4, effective November 30, 1999.

Brazil maintains a multiple currency practice (MCP) related to current and capital international transactions, as the effective exchange rate of exchange transactions subject to the IOF-FX exceeds the permissible margin under the Fund's new MCP policy. This MCP arises from the *Imposto sobre Operações Financeiras* (IOF) tax, currently of 3.38 percent applicable to exchange transactions related to (i) those carried out by institutions participating in cross border payment arrangements to fulfill their obligations arising from the customers' transactions related to the purchases of goods/ services abroad and cash withdrawals abroad using payment instruments, (ii) acquisition of traveler's checks and uploading prepaid card to cover travel expenses abroad. In March 2022, Brazil's Executive Branch published Presidential Decree 10.997/2022 that will gradually reduce the IOF-FX rates to zero by 2029 on all exchange transactions which are currently subject to a non-zero rate.

The MCP related to payments and transfers for current international transactions is also an exchange restriction subject to approval under Article VIII, Section 3 of the Articles of Agreement.

Last Article IV Consultation

The last Article IV consultation with Brazil was concluded by the Executive Board on July 11, 2024. The Financial Sector Assessment Program (FSAP) took place in 2002 and was updated in 2012 and 2018.

Capacity Development

The Statistics Department provided remote technical assistance on nonfinancial public sector Government Finance Statistics (GFS) data compilation in November 2020 and on Balance of Payments and International Investment Position issues in February 2021. The Monetary and Capital Markets Department has provided technical assistance on debt management issues in May 2023. STA provided technical assistance on GFS improving sectorization and data quality in August 2024.

RELATIONS WITH OTHER INTERNATIONAL FINANCIAL INSTITUTIONS

World Bank: http://www.worldbank.org/en/country/brazil

Inter-American Development Bank: https://www.iadb.org/en/who-we-are/country-offices/brazil

New Development Bank: https://www.ndb.int/

Statement by André Roncaglia, Executive Director for Ecuador,
Felipe Antunes, Alternate Executive Director,
and Pedro Miranda, Senior Advisor to Executive Director
July 14, 2025

On behalf of our Brazilian authorities, we thank Mr. Leigh and his team, as well as the senior reviewer, Ms. Corbacho, for the frank and constructive engagement under the 2025 Article IV consultation. The authorities appreciated the productive policy dialogue, and their views are broadly convergent with those of staff.

<u>The outlook remains positive, with growth converging to potential and inflation resuming its downward trend</u>

Brazil's economic performance was robust in 2024. Differently from the previous year, growth was driven by services and industry, while agriculture performed less well under the impact of a drought. On the demand side, private consumption and investment drove growth. The labor market was strong, with the addition of 1.7 million formal sector jobs and unemployment at record low levels. Income inequality also reached the lowest level in the historical data series initiated in 2012. However, labor force participation (LFP) remained below the pre-pandemic level due to only a partial recovery in female LFP. Disinflation stalled amid robust activity, foreign exchange (FX) rate depreciation, and higher food prices. Headline inflation ended 2024 at 4.8 percent, slightly above the upper limit of the target range (4.5 percent).

In 2025, economic activity is expected to moderate and inflation to resume its downward trend, in a scenario of predominantly downside risks to growth. In 2025 Q1, more cyclical economic sectors showed continued signs of moderation, with growth being driven by the recovery in agricultural output. Growth is expected to continue to moderate as the fiscal impulse becomes more firmly negative and monetary policy tightening continues to affect credit markets. With the economy cooling and as the relative price shocks of 2024 fade away, inflation should resume its downward trend before year-end. The authorities broadly agree with the drivers in the balance of risks to the growth outlook.

The upward revision of Brazil's long-term growth has resulted in more accurate forecast. As noted in the staff report, during the past three years real GDP growth averaged 3.2 percent, outperforming forecasts by the IMF and most market analysts at the start of each year by a wide margin. More recently, staff revised medium-term growth projections up, from 2.0 percent to 2.5 percent, which brings them in line with the authorities' own projections. Going forward, structural reforms and an ambitious *Ecological Transformation Plan* will continue to boost Brazil's growth potential.

<u>Landmark fiscal reforms will enhance efficiency and equity while ensuring sustainability</u>

The authorities have taken determined action to achieve their fiscal targets in 2024 and 2025, in line with the fiscal framework. The zero-deficit primary balance target of 2024 – excluding extraordinary expenditures related to the flood in Rio Grande do Sul state – was met. The significant increase in revenue reflected both strong economic activity and measures to restore the tax base and eliminate distortions. In November 2024, the authorities unveiled a package of structural measures to control spending in 2025 and later years, in line with the fiscal framework, including a 2.5 percent cap on real growth of the minimum wage. The authorities are committed to meeting the primary balance target for 2025 through automatic spending freezes and additional revenue mobilization measures if needed. This will result in a firmly negative fiscal impulse in 2025, hence supporting disinflation.

The authorities will continue to pursue structural measures to ensure a credible, sustainable path for the primary fiscal balance and public debt. The indicative primary balance targets will stabilize the ratio of public debt-to-GDP by 2029. In order to achieve these targets, the authorities will continue to pursue a growth-friendly fiscal consolidation based on high-quality, structural measures. On the revenue side, the authorities intend to further reduce inefficient and regressive tax expenditures, building on the progress in phasing out tax exemptions for the exhibition sector, payroll taxes, and fuels. Given still-high inequality, removing regressive tax distortions can lead to non-negligible gains in revenue. There is also scope for further savings on the spending side, including through the ongoing efforts to strengthen controls and combat fraud in eligibility for social assistance. The authorities recognize the need for gradual fiscal consolidation in line with the existing fiscal framework but remain firmly committed to shielding the most vulnerable and reducing inequality.

Revenue-neutral tax reforms aim to increase efficiency and equity of the tax system. The implementation of the landmark value-added tax reform approved in 2023 is on track and will lead to substantially lower compliance costs, avoid race-to-the-bottom tax wars between subnational entities, increase transparency, reduce litigation, and eliminate distortions, including by ensuring full crediting of tax paid on intermediate inputs. The personal income tax reform under discussion in Congress will enhance equity by adopting a minimum effective tax rate for high-income individuals, who typically pay lower rates than low- and middle-income households due to widespread exemptions. Both tax reforms are revenue-neutral by design so that the focus is on efficiency and equity considerations while revenues are safeguarded.

<u>Monetary authorities are committed to ensuring the convergence of inflation to the target</u>

With inflation stubbornly above target, the central bank increased the policy rate to significantly restrictive levels. The *Banco Central do Brasil* (BCB) began the tightening cycle in the second half of 2024, in a context of economic activity proving more robust than expected and headline inflation and inflation expectations above target. In its last meeting in June 2025, the BCB increased the policy rate to 15 percent, emphasizing that ensuring the convergence of inflation to target would require significantly restrictive monetary policy for a prolonged period of time. The BCB highlighted that, while its baseline scenario called for the interruption of the tightening cycle, it would remain vigilant, maintain flexibility, and would not hesitate to resume the cycle if appropriate.

The flexible exchange rate continues to play a critical role in helping the economy absorb external shocks. We appreciate staff's analysis of the drivers of the *real's* exchange rate movements in 2024, which indicated that global factors accounted for most of the depreciation of the *real.* In Brazil's floating exchange rate regime, the BCB does not target any level for the exchange rate, intervening only when it deems that FX market conditions are dysfunctional. Consistent with this policy framework, when the FX market came under stress in December 2024 due to unexpected outflows that led to concerns among market participants about liquidity shortages, the BCB intervened in the spot market in order to reduce excessive volatility, prevent contagion to other asset classes and restore market functioning.

<u>Financial sector reforms aim to ensure resilience while enhancing efficiency and innovation</u>

The financial system remains solid, with ample prudential buffers. Capital and liquidity are at comfortable levels, provisions adequately cover expected losses, and stress tests confirm the robustness of the financial system. Recent regulatory changes that will further strengthen resilience include harmonizing prudential regulations applied to financial conglomerates led by a payment institution to the regulations applied to traditional financial conglomerates, aligning credit loss provisions to IFRS9 standards, and strengthening capital requirements for operational risk exposures.

Another important focus of financial sector policy is to sustainably reduce the cost of credit for households and firms. Ongoing and recently enacted reforms aim to strengthen the legal framework for bankruptcy, guarantees, capital markets, and resolution. The *Desenrola* program helped overindebted households resolve their debt overhang and regain access to credit. The recently launched reform of the private-sector payroll-guaranteed credit line aims to improve collateral quality and efficiency in order to provide households with access to lower-cost credit. The design of the reform includes mechanisms to encourage the use of the newly available credit to pay off existing debt. We agree that lending by public banks should continue to focus on addressing market failures, and note staff's assessment that public banks appear well-capitalized, profitable, and liquid, and have been paying dividends to the government.

Financial innovation is key for greater financial sector competition, efficiency, and inclusion. The BCB continues to develop new functionalities for their flagship instant payment system (Pix). Recently launched functionalities include contactless payments and recurring payments, and the BCB expects to issue rules soon for a "buy now, pay later" installment payment system. The development of Brazil's Central Bank Digital Currency (Drex) has continued to advance. The pilot recently moved into a new phase, focused on testing additional use cases while continuing to explore data privacy solutions. Cyber security and data privacy remain prerequisites for public launch.

A range of social, climate, and industrial policies will continue to boost strong, sustainable, balanced, and inclusive growth.

We welcome the deep dive into climate and ecological transformation policies in the staff report and encourage the Fund to perform similar analyses across countries in a consistent and even-handed manner. As the host of COP30, Brazil is proud of its longstanding commitment to sustainable development in its indivisible economic, social, and environmental dimensions. Beyond already having one of the cleanest energy matrixes among G20 economies, Brazil is on track to meet its NDC targets on the back of a remarkable reduction in deforestation. Rather than a cost, the authorities see sustainable development policies as an opportunity to modernize Brazil's productive structures and attract investment. The ambitious *Ecological Transformation Plan* is leveraging Brazil's comparative advantages to create quality jobs, boost environmental sustainability, and promote a fair and inclusive energy transition.

The *Nova Indústria Brasil (NIB)* program is reinvigorating Brazil's industrial policies, in line with social and environmental priorities and consistent with international obligations. The new industrial policy program was launched by the federal government in January 2024, aiming to boost national industrial development by 2033. It includes a shift toward six main "missions" focused on innovation and sustainability within agriculture, health, infrastructure, decarbonization and energy transition, digitalization, and defense. Financing targets by the Brazil's National Development Bank (BNDES) are currently at BRL 300 billion by 2026.

We appreciate staff's high-quality analytical work on macrocritical social issues such as female labor force participation and the impact of the flagship cash transfer program on employment. Staff's advice in this regard is very constructive and well aligned with authorities' priorities and the permanent endeavor to enhance the impact of existing social policies. We agree that reducing informality would further support inclusive growth. Authorities are confident that existing initiatives such as the *Pé-de-Meia* program, which provides financial incentives for low-income students to stay in high school, and the law on equal pay passed in 2023 will further enhance educational attainment and contribute towards narrowing gender pay gaps.

Concluding remarks

The economic policy agenda is set to place the economy on a more sustainable, efficient, and equitable growth trajectory. Macroeconomic policies are consistent with moderating growth in the near term and inflation resuming its downward trend by year-end. The BCB has emphasized its determination to ensure the convergence of inflation to target. Fiscal and tax reforms aim to increase efficiency and equity, while keeping public debt on a sustainable path. The *Ecological Transformation Plan* and other structural reforms and macrocritical social policies have the potential to further boost sustainable and inclusive growth. In a large, diverse democracy, reforms require extensive debate, which may be complicated by tensions in the political economy landscape. Nevertheless, we remain confident that Brazil continues to move in the direction of a more efficient, sustainable, and inclusive economy, to the benefit of the Brazilian people.