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August 2018

2018 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 2018 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 9, 2018 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 9, 2018, following discussions that ended on May 21, 2018, 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 20, 2018.
- An **Informational Annex** prepared by the IMF staff.
- A **Debt Sustainability Analysis** prepared by the staff of the IMF.
- A **Statement by the Executive Director** for Brazil.

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July 11, 2018

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IMF Executive Board Concludes 2018 Article IV Consultation with Brazil

On July 9, 2018, the Executive Board of the International Monetary Fund (IMF) concluded the Article IV consultation[1] with Brazil.

A mild recovery supported by accommodative monetary and fiscal policies is currently underway. But the economy is underperforming relative to its potential, public debt is high and increasing, and, more importantly, medium-term growth prospects remain uninspiring, absent further reforms. Against the backdrop of tightening global financial conditions, placing Brazil on a path of strong, balanced and durable growth requires a committed pursuit of fiscal consolidation, ambitious structural reforms, and a strengthening of the financial sector architecture.

Following the severe recession in 2015−16, real GDP grew by 1 percent in 2017. Growth is projected to be 1.8 and 2.5 percent in 2018 and 2019, respectively, driven by a recovery in domestic consumption and investment. Even if federal expenditure remains constant in real terms at its 2016 level, as mandated by a constitutional rule, public debt is expected to rise further and peak in 2023 at above 90 percent of GDP. Fiscal consolidation is key to maintain confidence in debt sustainability. Brazil is also vulnerable to a tightening of global financial conditions and possible trade disruptions, even though trade diversion effects may attenuate the impact. These risks can be compounded if there is no continuity in the reform agenda.

The fiscal deficit has declined, but public debt is growing and deeper reforms are lagging. Non-financial public-sector debt rose from 78.3 percent of GDP to 84 percent between 2016 and 2017. The primary fiscal deficit declined to 1.7 percent of GDP in 2017, below the authorities' target, reflecting under-execution of spending. The government aims to restore fiscal sustainability by faster fiscal consolidation than implied by the expenditure ceiling, depending on revenue performance. For 2018, they aim to bring the primary deficit down by keeping

[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.

discretionary spending under control, containing wage increases, and optimizing social benefits eligibility, where possible.

Inflation has declined to record lows. During 2017, inflation decreased from 6.3 to 2.9 percent, just below the target range, owing largely to slack in the economy, a notable fall in food prices due to an exceptional harvest, and well-anchored expectations. Inflation is projected to increase towards the 4.25 midpoint of the inflation target in 2019, as the food price shock dissipates and the output gap narrows. Since the beginning of the easing cycle in September 2016, the Central Bank has lowered the policy rate by 775 bps to the record low level of 6.5 percent.

The current account deficit shrank from 4.2 percent of GDP in 2014 to 0.5 in 2017 as imports contracted with the collapse of private investment. As the recovery gains strength, the rebound in investment will offset the effects of fiscal consolidation and lead to a deterioration of the current account to about -2 percent of GDP over the medium term. On average in 2017, the external position was broadly consistent with medium-term fundamentals and desirable policies. Brazil has continued to attract sizeable capital inflows, especially foreign direct investment.

Banks have been broadly resilient. Despite large losses during the 2015−16 recession, the recent FSAP found the banks to be well capitalized, profitable, and liquid, in large part reflecting high interest margins and fees. The economic recovery led to a decline in loan losses, which boosted profits. Capital ratios are above regulatory minima. The FSAP systemic risk analysis suggests that bank solvency and liquidity are broadly resilient to further severe macro-financial shocks.

Executive Board Assessment[2]

Executive Directors concurred that Brazil's economic recovery is under way but remains subject to significant downside risks stemming from uncertainty regarding the continuity of reforms and the ongoing tightening of global financial conditions. Directors encouraged the authorities to continue their efforts to ensure fiscal sustainability and remove structural impediments to strong and durable growth.

Directors underscored that, given the high level of public debt, continued fiscal consolidation is of paramount importance. They regretted that some measures for the 2018 budget could not be passed, but noted positively the authorities' commitment to save any revenue overperformance. Directors agreed that pension reform is imperative to ensure the sustainability of the system and improve equity. Additional expenditure measures could include decisive efforts to contain the public wage bill while protecting public investment and social programs. Reforms to simplify taxes should be considered and the fiscal framework should continue to be strengthened.

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[2] 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.

Directors welcomed the reduction in inflation and the anchoring of inflation expectations. They agreed that the current monetary policy stance is appropriate and should remain accommodative to help close the output gap but should be vigilant to domestic and external sources of inflationary pressures.

Directors underscored that the floating exchange rate regime and the large reserve buffers are important cornerstones of the policy framework and should be preserved. They recommended that intervention in the foreign exchange market be limited to addressing disorderly conditions. Monetary policy should respond to movements in the exchange rate only insofar as there are risks for inflation expectations. In this context, Directors underscored the importance of central bank independence.

Directors concurred that the financial system is broadly resilient. Nonetheless, they agreed with the FSAP recommendation that further action is needed to strengthen the microprudential, macroprudential, and safety net frameworks. Directors underscored the importance of improving the efficiency of the financial system, especially by reducing the high intermediation costs.

Directors welcomed the recent reforms to the labor market and subsidized credit. Nonetheless, they urged the authorities to proceed with additional prioritized structural reforms, which are essential to raise productivity and potential growth. Reforms should focus on reducing state intervention in credit markets, enhancing trade integration, and improving public infrastructure. Directors underscored that the ongoing efforts to combat corruption and money laundering are vital to secure strong and inclusive growth.

Table 1. Brazil: Selected Economic Indicators

I. Social and Demographic Indicators

Area (thousands of sq. km)	8,512	Health	
Agricultural land (percent of land area)	31.2	Physician per 1000 people (2018)	2.1
		Hospital beds per 1000 people (2018)	2.0
Population		Access to safe water (2015)	98.1
Total (million) (est., 2018)	208.8		
Annual rate of growth (percent, 2015)	0.8	Education	
Density (per sq. km.) (2018)	24.5	Adult illiteracy rate (2016)	7.2
Unemployment rate (latest, Apr 2018)	13.1	Net enrollment rates, percent in:	
		Primary education (2016)	99
Population characteristics (2016)		Secondary education (2015)	84
Life expectancy at birth (years)	76		
Infant mortality (per thousand live births)	13	Poverty rate (in percent, 2017) 1/	25.4
Income distribution (2016)		GDP, local currency (2017)	R$6,559 billion
By highest 10 percent of households	40.9	GDP, dollars (2017)	US$2,055 billion
By lowest 20 percent of households	3.6		
Gini coefficient (2016)	52.5	GDP per capita (est., 2017)	US$9,896

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

II. Economic Indicators

			Proj.					
	2016	2017	2018	2019	2020	2021	2022	2023
	(Percentage change)							
National accounts and prices								
GDP at current prices	4.4	4.8	4.9	7.5	7.2	7.1	7.1	7.1
GDP at constant prices	-3.5	1.0	1.8	2.5	2.3	2.2	2.2	2.2
Consumption	-3.4	0.6	1.5	1.9	1.2	1.0	1.4	1.9
Investment	-14.3	2.9	7.7	8.6	8.8	8.3	6.1	3.8
Consumer prices (IPCA, end of period)	6.3	2.9	3.5	4.1	4.0	4.0	4.0	4.0
	(Percent of GDP)							
Gross domestic investment	15.4	15.5	16.2	16.9	17.8	18.7	19.3	19.5
Private sector	13.6	13.8	14.5	15.3	16.3	17.2	17.9	18.2
Public sector	1.8	1.7	1.7	1.6	1.5	1.4	1.4	1.3
Gross national savings	14.1	15.0	14.9	15.4	16.2	16.9	17.4	17.6
Private sector	21.2	21.0	21.6	21.5	22.1	22.5	22.7	22.7
Public sector	-7.1	-6.0	-6.7	-6.1	-5.9	-5.6	-5.4	-5.1
Public sector finances								
Central government primary balance 2/	-2.6	-1.8	-2.3	-1.8	-1.3	-0.6	0.0	0.5
NFPS primary balance	-2.5	-1.7	-2.4	-1.8	-1.1	-0.4	0.2	0.7
NFPS cyclically adjusted primary balance	-1.2	-0.5	-1.4	-1.2	-0.8	-0.3	0.2	0.7
NFPS overall balance (including net policy lending)	-9.0	-7.9	-8.5	-7.8	-7.5	-7.1	-6.8	-6.5
Net public sector debt	46.2	51.6	56.2	59.9	62.9	65.7	67.7	68.9
General Government gross debt, Authorities' definition	70.0	74.0	...	...	...	...	...	...
NFPS gross debt	78.4	84.0	88.2	90.4	92.4	94.2	95.1	95.6
Of which: Foreign currency linked	3.8	3.6	3.5	3.2	3.0	2.8	2.8	2.8
	(Annual percentage change)							
Money and credit								
Base money 3/	8.1	0.5	4.9	7.5	7.2	7.1	7.1	7.1
Broad money 4/	12.4	0.3	7.9	10.9	13.8	14.6	14.5	14.5
Bank loans to the private sector	-2.9	-0.9	2.7	7.3	7.7	8.4	8.0	8.6
	(Billions of U.S. dollars, unless otherwise specified)							
Balance of payments								
Trade balance	45.0	64.0	59.4	55.4	55.6	57.8	60.3	62.6
Exports	184.5	217.2	234.1	242.8	253.5	265.7	277.8	289.5
Imports	139.4	153.2	174.7	187.4	197.9	207.9	217.4	226.9
Current account	-23.5	-9.8	-24.4	-30.5	-35.1	-39.3	-43.8	-46.9
Capital account and financial account	16.7	6.5	24.4	30.5	35.1	39.3	43.8	46.9
Foreign direct investment (net)	65.4	64.1	60.0	55.1	50.7	48.8	48.1	48.7
Terms of trade (percentage change)	3.0	-0.8	-1.3	-0.8	-0.8	-0.4	-0.1	0.0
Merchandise exports (in US$, annual percentage change)	-3.0	17.8	7.8	11.8	8.3	4.8	4.5	4.2
Merchandise imports (in US$, annual percentage change)	-19.1	9.9	14.0	22.3	13.3	5.1	4.6	4.3
Total external debt (in percent of GDP)	37.2	32.5	32.0	30.4	28.9	27.3	25.7	24.2
Memorandum items:								
Current account (in percent of GDP)	-1.3	-0.5	-1.2	-1.4	-1.5	-1.6	-1.7	-1.8
Unemployment rate	11.3	12.8	11.6	10.5	10.1	9.8	9.5	9.5
Gross official reserves	365.0	374.0	374.0	374.0	374.0	374.0	374.0	374.0
REER (annual average in percent; appreciation +)	6.8	9.6	...	...	...	...	...	...

Sources: Central Bank of Brazil; Ministry of Finance; IBGE; IPEA; and Fund staff estimates.

1/ Computed by IBGE using the World Bank threshold for upper-middle income countries of U$5.5/day. This number is not comparable to the estimates provided by IPEA in previous years due to methodological differences.

2/ Includes the federal government, the central bank, and the social security system (INSS). Based on the 2017 draft budget, recent annoucements by the authorities, and staff projections.

3/ Currency issued plus required and free reserves on demand deposits held at the central bank.

4/ Base money plus demand, time and saving deposits.

INTERNATIONAL MONETARY FUND

BRAZIL

STAFF REPORT FOR THE 2018 ARTICLE IV CONSULTATION

June 20, 2018

KEY ISSUES

Recent developments. Following a severe recession in 2015−16, real GDP grew by 1 percent in 2017. Inflation declined below the inflation target range, prompting the Central Bank to cut interest rates to historic lows. Despite fiscal consolidation in 2017, public debt has reached 84 percent of GDP and fiscal reforms have stalled.

Outlook. GDP is projected to grow at 1.8 and 2.5 percent in 2018 and 2019, respectively, driven by a recovery in domestic consumption and investment. The 2018 budget loosens the fiscal stance. Even if federal expenditure remains constant in real terms at its 2016 level, as mandated by a constitutional rule, public debt is expected to rise further and peak in 2023 at above 90 percent of GDP.

Risks. Failure to pursue fiscal consolidation could undermine confidence in debt sustainability, leading to higher government bond yields and a sharp depreciation of the exchange rate. Brazil is also vulnerable to a tightening of global financial conditions and possible trade disruptions, even though trade diversion effects may attenuate the impact. These risks can be compounded by the effect of domestic political uncertainty.

Policy recommendations. The expenditure ceiling provides a basis for fiscal consolidation, but measures to comply with it are yet to be identified. Furthermore, given the adverse debt dynamics, the primary balance should be strengthened at a faster pace than planned to achieve a decline in public debt by 2023. Monetary policy should remain accommodative and offset the contractionary effects from fiscal consolidation, provided inflation expectations remain anchored. Exchange rate flexibility should remain the first line of defense against external shocks. Brazil should undertake ambitious structural reforms, starting with measures to improve the efficiency of financial intermediation and reduce the role of public banks. Improvements to the financial sector architecture will bolster financial stability and help anchor strong and durable growth.

Approved By
Krishna Srinivasan (WHD) and Vitaliy Kramarenko (SPR)

The team comprised A. Spilimbergo (Head), N. Biljanovska, I. Karpowicz (until May), and D. Sandri (all WHD), M. Soto (FAD), R. Berkhout (LEG), I. Krznar and J. Scarlata (all MCM), and K. Moriyama (SPR), assisted by F. Bornhorst (Resident Representative) and D. Cunha (local economist). Discussions took place in Rio de Janeiro, São Paulo, and Brasilia during May 7–21, 2018. The team met with representatives of business and labor, financial sector analysts, think-tanks, academics, and senior government and Central Bank officials. B. Saraiva (OED) participated in most of the meetings. K. Srinivasan (WHD) and A. Tombini (Executive Director) joined the concluding meetings for the Article IV and the FSAP.

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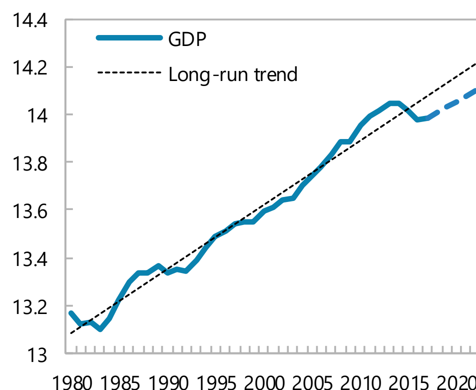
THE RECOVERY IS UNDERWAY, BUT RISKS REMAIN

1. The economic recovery is proceeding at a moderate pace. In 2015–16, Brazil suffered its most severe recession which led to a cumulative real GDP contraction of 8.2 percent. Growth resumed in 2017 with GDP growing at 1 percent. Conditional on favorable external conditions, growth is expected to accelerate to 1.8 and 2.5 percent in 2018 and 2019, respectively, driven by private consumption and investment. In line with the empirical evidence on the effects of severe crises, these projections assume that the 2015–16 recession had a permanent effect on potential GDP, involving a 9 percent drop relative to the long-run trend. The output gap is estimated to be about -3.5 percent and projected to close in 2022.

Real GDP
(Millions of 1995 reais, log scale)



Sources: World Economic Outlook.

2. The social implications of the recent economic contraction remain worrisome. The 2015–16 recession led to a sharp increase in unemployment, from 7 to 13 percent, and in the number of people living in poverty. The unemployment rate has begun to decline, but only moderately and mostly in the informal sector (Box 1). The number of discouraged workers is very high. Jobless rates are significantly higher among the young, women, and Afro-Brazilians. The labor market reform that came into effect in November 2017 has reduced litigation and increased flexibility in employment contracts and wage setting. However, the effects on employment have been weak so far because of legal uncertainty surrounding the interpretation of the law by the courts and the slow pace of economic growth.

3. The fiscal deficit has declined, but public debt is growing and deeper reforms are lagging. The primary fiscal deficit declined to 1.7 percent of GDP in 2017, below the authorities' target, reflecting under-execution of discretionary expenditures. The cyclically adjusted stance was contractionary and net interest payments declined, owing to lower policy rates and bond spreads. Nonetheless, public debt reached 84 percent of GDP in 2017. More importantly, the much-needed pension reform has stalled, leading Fitch and S&P to downgrade Brazil's sovereign debt to BB-.

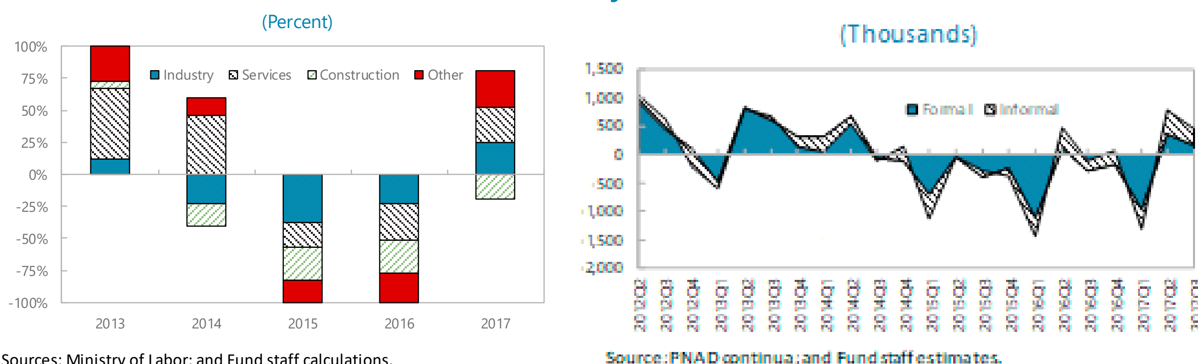
4. Inflation has declined to record lows prompting a large reduction in the policy rate. During 2017, inflation decreased from 6.3 to 2.9 percent, just below the target range, owing largely to slack in the economy and a notable fall in food prices due to an exceptional harvest. Since the beginning of the easing cycle in September 2016, the Central Bank has lowered the policy rate by 775 bps to the record low level of 6.5 percent. Inflation is projected to increase towards the 4.25 midpoint of the inflation target in 2019, as the food price shock dissipates and the output gap narrows.

Box 1. Labor Markets and Informality

Since 2017, most employment growth has been in the informal sector. During the recession all sectors experienced job destruction. However, during the recovery, job creation has been concentrated in the informal sector, while the formal sector has lagged. This is unusual since historically the business cycle has been tightly connected to formal job creation. This suggests that the deep recession left considerable uncertainty and reluctance to hire in the formal sector.

The increase of informality is a concern for various reasons. First, it may jeopardize the reduction in income inequality that was achieved between 2004 and 2014 thanks to a significant decline in informality, from 60 to 45 percent of total employment. Moreover, informal employment weakens the tax base and is associated with lower productivity growth, a perennial problem in Brazil. Finally, informal employment lacks adequate social protection and affects disproportionally the most vulnerable groups in the population, especially women, the young, and poorly-educated workers in northern and northeastern regions.

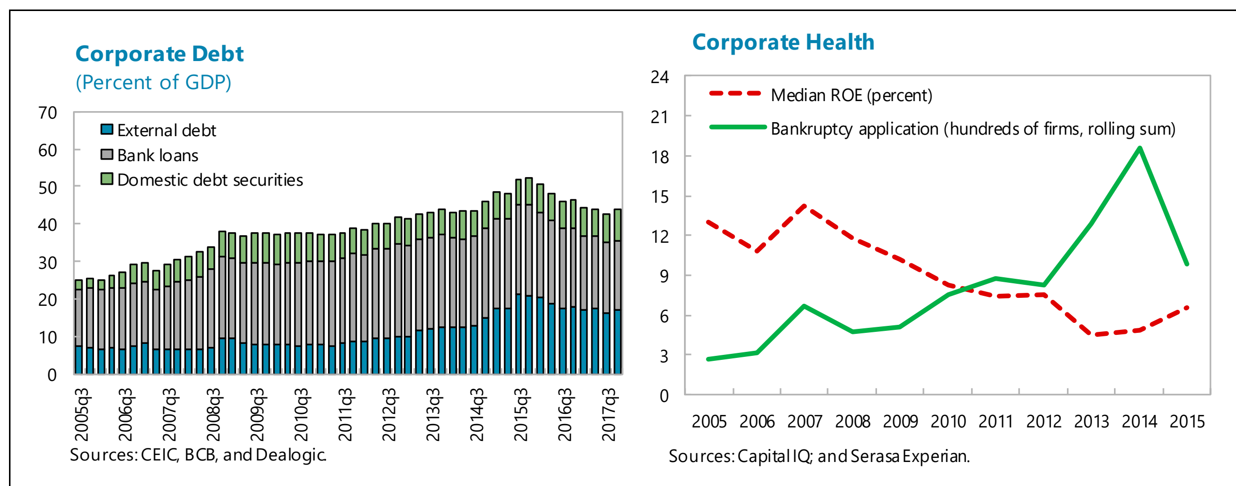
Net Job Creation by Sector and Status



Sources: Ministry of Labor; and Fund staff calculations.

Source: PNAD continua; and Fund staff estimates.

5. Nonfinancial corporates and households' balance sheets have marginally improved. Household debt as a share of disposable income and the debt service-to-income ratio have declined slightly supported by lower lending rates and higher income. Corporate leverage ratio has also declined, but remains high. Nonfinancial corporates' liquidity and profitability have improved, but they are still below pre-recession levels. Corporate bankruptcy applications have edged down.



Sources: CEIC, BCB, and Dealogic.

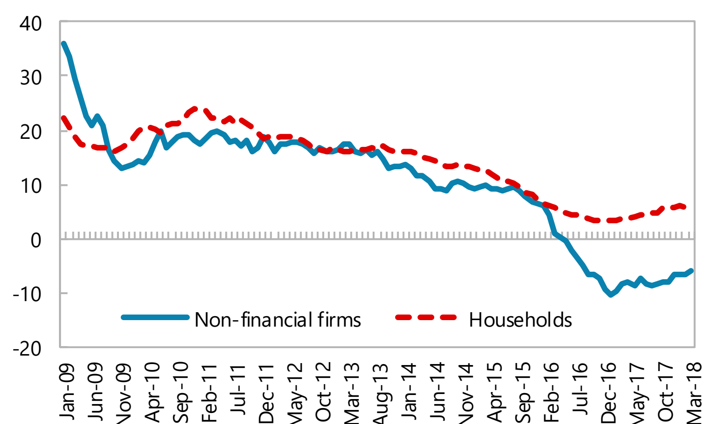
Sources: Capital IQ; and Serasa Experian.

6. Banks weathered the recession well. Despite considerable losses on their loan portfolio, banks remained resilient. High interest margins and fees helped to preserve their profitability and bank capital, while liquidity remained adequate. The economic recovery led to a decline in delinquency ratios which boosted profits. Capital ratios are well above regulatory minima.

7. Credit growth turned slightly positive in recent months, supported by looser financial conditions. Financial conditions eased in 2017. Intermediation spreads have declined slightly and a recent large reduction in reserve requirements has lowered bank funding costs. Non-earmarked credit to households is growing at a moderate pace. Public banks are reducing lending after the big expansion following the financial crisis, partly due to the gradual phasing out of interest rate subsidies and lower funding available to BNDES, but private banks and capital markets are taking up the slack.

Credit to Households and Non-financial Firms

(y-o-y growth; in percent)

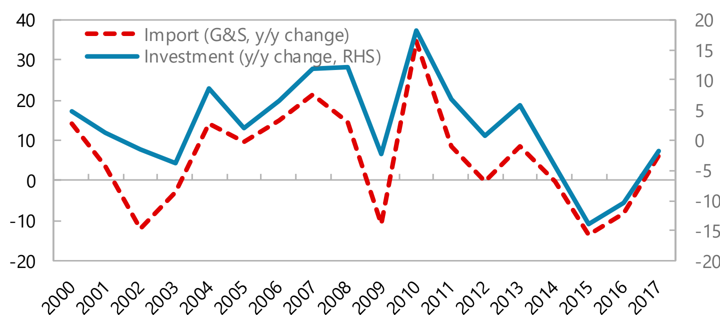


Sources: BCB; and Fund staff calculations.

8. The current account improved as imports contracted. The current account deficit shrank from 4.2 percent of GDP in 2014 to 0.5 in 2017 as imports contracted with the collapse of private investment. As the recovery gains strength, the rebound in investment will offset the effects of fiscal consolidation and lead to a deterioration of the current account to about -2 percent of GDP over the medium term.[1]

Volume of Investment and Imports, 2000 – 17

(y/y change, percent)



Source: WEO.

9. IMF's past policy advice has been implemented selectively (Appendix III). Past policy advice stressed the importance of fiscal consolidation to ensure debt sustainability. Pension reform—key measure underlying consolidation—and other measures to contain the deficit, including addressing budget rigidities and the automatic link between benefit payments and minimum wage, have been postponed. The stance of monetary policy was maintained

[1] Brazil maintains a capital flow management measure (CFM) namely a tax on short-term external loans. In line with the Institutional View on capital flows, this measure was relaxed in 2014 as capital inflow pressures receded and should be periodically reviewed.

accommodative and the exchange rate flexible as recommended in the 2017 staff report. Some key progress was made on structural reforms, including a labor reform, strengthening the AML framework, and measures to increase the efficiency in the energy sector and in the public banks.

10. The outlook is subject to considerable downward risks, some of which are linked to domestic factors. The key domestic risk is that fiscal reforms are delayed. The outcome of the October elections is uncertain, with polls showing a high degree of polarization. The new government may not have the political will or support to pursue fiscal consolidation, especially pension reform. In such circumstances, investors could lose confidence in debt sustainability, leading to an exchange rate depreciation, an increase in sovereign yields, a tightening of financial conditions, and, possibly, to a recession. These effects may manifest ahead of the elections if the political campaign appears to reward candidates that oppose fiscal reforms. Furthermore, the nation-wide trucker strike that took place at the end of May is a risk for the 2018 growth outlook.

11. External risks may arise from tighter global financial conditions and negative trade shocks (Appendix I). Despite Brazil's strong external position and relatively low external rollover needs, a sudden increase in global risk aversion may put pressures on the exchange rate and raise sovereign spreads. The rapid depreciation of some emerging market currencies, including the *real* over the last few weeks, is a reminder that external conditions can change abruptly. Brazil is also vulnerable to retreat from cross-border integration and, in particular, trade and commodity price shocks arising from U.S. trade policy or a slowdown in China, which accounts for almost 20 percent of Brazil's exports. However, the effect could be attenuated by positive trade diversion effects, for example by replacing U.S. exports of soybeans to China. Unfavorable economic developments in Brazil may spill over to other countries in the region through trade and financial channels.

POLICY DISCUSSIONS

Discussions focused on policies to secure a strong and durable recovery, ensure fiscal sustainability, improve the resilience and efficiency of the financial sector, and remove structural impediments to growth. Given the debt dynamics, fiscal consolidation should be strengthened while protecting spending aimed at addressing the social consequences of the crisis. Since inflation is below target and expectations are anchored, monetary policy should remain accommodative to facilitate a durable recovery. The exchange rate should remain flexible to absorb external shocks. Deeper structural reforms are needed to support productivity growth.

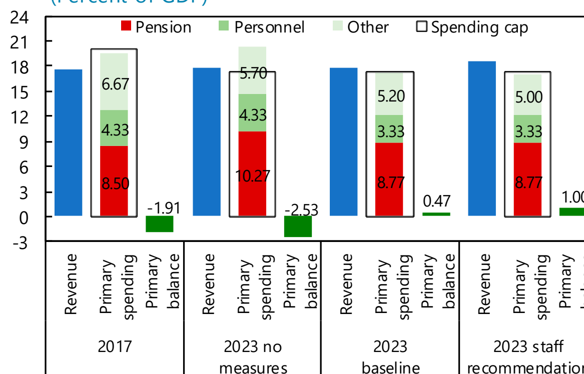
A. Accelerating Fiscal Consolidation

12. In staff's baseline, the fiscal outlook carries risks. Even if federal government expenditure is reduced by about 0.5 percent of GDP per year starting in 2019, as mandated by the constitutional expenditure ceiling, gross public debt will increase to peak above 90 percent of GDP in 2023. Such high levels of debt pose serious risks to the economy, especially in the context of a tightening of

global financial conditions. Against this backdrop, a widening of the primary deficit, as implied by the 2018 budget, should be avoided.

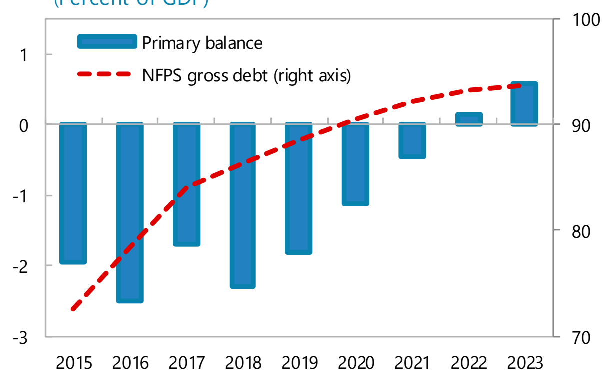
13. The authorities should reduce the primary deficit faster than in the baseline scenario. Staff recommends continuing with fiscal consolidation in 2018, including by advancing the various measures originally contemplated in the draft budget but rejected by congress (Box 2). The adjustment should aim at start reducing public debt as share of GDP by 2023. The federal government primary surplus should reach 1 percent of GDP in 2023 (0.5 percent of GDP higher than in the baseline) and at least 2.5 percent of GDP in 2026. Achieving that surplus requires a cumulative fiscal adjustment of about 4.5 percent of GDP (the primary deficit was 1.8 percent of GDP in 2017) but only half of the adjustment is structural. The consolidation could be achieved by containing expenditure in line with the constitutional ceiling together with some revenue measures. Containing expenditure requires:

Federal Government Fiscal Accounts
(Percent of GDP)



Sources: Fund staff calculations.

Primary Fiscal Balance and Gross Public Debt
(Percent of GDP)



Sources: World Economic Outlook.

- a comprehensive pension reform to stabilize pension spending in percent of GDP should aim at increasing retirement ages, delinking the minimum pension from the minimum wage, and moderating the generosity of pensions, particularly for government employees,

- reducing personnel spending by about 1 percent of GDP (containing wages and hiring, and better aligning compensation with the private sector) (Box 3),

- identifying additional expenditure measures and efficiency gains of about 0.5–1 percent of GDP (including better targeting of social benefits such as *abono salarial*),

- and protecting effective social programs, including *Bolsa Familia*, and public investment.

On the revenue side, consideration should be given to:

- remove distortionary tax exemptions which cost about 4 percent of GDP annually,

- simplify the tax system (moving toward a single broad-based VAT with full refund for VAT on intermediate goods),

Box 2. Fiscal Measures

Most of the proposed measures in the 2018 draft budget law stalled in Congress. The government originally proposed measures equivalent to about 0.5 percent of GDP in 2018 to continue fiscal consolidation. However, most measures were not taken onboard by congress in the approved 2018 budget, accounting for the fiscal expansion projected for 2018.

- *Eletrobras privatization (12.2 billion in extraordinary revenue; included in budget but at risk*). The 2018 budget includes proceeds from hydroelectric contracts as extraordinary revenue. However, opposition to privatization is mounting, including through legal challenges. Recognizing these risks, the government has included contingency in the budget which blocks discretionary expenditure if these proceeds do not materialize.

- *Discretionary cuts (included in budget)*. The 2018 budget includes further reductions to discretionary expenditure, including in *Minha Casa Minha Vida* (1.2 billion), and the allocation for *emergencias de defesa civil* (1.2 billion).

- *Tax increase for closed-end funds (fiscal savings 6 billion; included in budget, but diluted)*. The government proposed to tax closed-end investment funds annually, instead of waiting until redemption or liquidation. Congress has restricted this measure only to new funds and annual receipts are now expected to be negligible in the short term.

- *Delay wage increases for the civil service (fiscal savings of 4.4 billion; not included in budget)*. The government proposed to delay previously agreed wage increases from 2018 and 2019 by one year (to take place on 2019 and 2020 respectively). However, the final approval of the budget took place in February, after the 2018 salary adjustment was granted. This measure has therefore no impact on 2018.

- *Increase pension contributions for civil servants (fiscal savings of 2.5 billion; not included in budget)*. Increases the contribution rate for the civil servant pension regime (RPPS) from 11 to 14 percent of wages, for workers with wages above the maximum RPPS pension. This decision was challenged in court, under the argument that it imposes a disproportional effort on public employees.

- *End of payroll tax exemptions (fiscal savings of 5.8 billion; not included in budget)*. Since 2011, employers across many industries can substitute the employer portion of payroll taxes (20 percent of covered wages) with a tax on revenues (typically 2.5 percent). To avoid distortions in social security financing, the treasury covers the difference between the two. A draft law curtailing these exemptions has not been approved by congress.

- *Pension reform (fiscal savings of 1.9 billion, not included in budget*). The original pension proposal aimed to deliver savings starting in 2018. However, the pension bill has stalled in congress, and attempts to limit reforms to introducing a minimum retirement age did not succeed.

- harmonize the fragmented federal and state tax regimes, and

- in the medium-term, review the personal and corporate income tax system toward simplification, including by reducing incentives for individuals to incorporate as businesses for tax purposes.

14. The fiscal framework should be strengthened. To facilitate fiscal adjustment, raise the credibility of fiscal policies, and improve fiscal policy planning the authorities should also move forward on several fronts:

Box 3. Rightsizing the Government Wage Bill

The wage bill is high relative to peers. At 13 percent of GDP, compensation of employees is substantially above the levels observed in advanced economies (10 percent of GDP), emerging economies (9 percent of GDP), and Latin America (8 percent of GDP). The wage bill is procyclical, and its considerable size limits other productive government spending, including investment. Nearly 75 percent of the wage bill corresponds to state and municipal governments. This reflects the division of responsibilities: about 55 percent of employees in state and local governments are in health, education, and security, compared to 35 percent in the federal government.

Compensation of Employees, 2016
(Percent of GDP)

Source: Fund staff calculations

The level of pay is the main factor explaining the relatively high wage bill. Government employment is in line with those observed in other emerging markets and developing countries (below 9 percent of working-age population). In contrast, government workers command substantially high pay premium relative to those in the private sector when compared with other countries. The public wage markup is up to 50 percent, especially for individuals with low levels of education. Since most government employees are covered by a special pension regime (more generous than for the private sector), the markup would be even higher from the perspective of their lifetime pay. Furthermore, most government workers are in the top two quintiles of the earnings distribution (80 percent of federal workers and 55 percent of subnational workers).

Containing the wage bill is essential to ensure fiscal sustainability. Meeting the expenditure ceiling requires a break in the wage bill from historical trends: on average, the federal wage bill increased by about 4 percent per year in real terms in 2000-16. In subnational governments, personnel expenditure increased by 1 percentage point of GDP in the past six years. Containing subnational wage bills is needed to maintain personnel expenditure below the 60 percent of net revenue (mandated by the Fiscal Responsibility Law).

To achieve fiscal savings in the near term, real wages would have to fall and the employment to population ratio would have to come down. This requires substantial adjustments to remuneration and hiring practices. For example, achieving total savings of 0.5 percentage points of GDP would require freezing remuneration in nominal terms (i.e., no negotiated wage increase, but maintaining seniority increases) and halting new hiring for the next five years.

In the medium term, it is critical to address inefficient idiosyncrasies in the compensation structure. The multitude of careers and wage grids introduce disparities in earnings for similar positions across different entities. Automatic seniority increases of up to 3 percent per year are inconsistent with a low-inflation environment. Workers in clerical and administrative often earn higher wages than entry level professionals with greater job responsibility, largely reflecting differences in tenure.

Efforts to enhance subnational remuneration transparency should continue. In the federal government, timely and detailed payroll data is publicly available from the Transparency Portal. Expanding such initiative to all subnational governments remains a priority.

- *Addressing major budget rigidities*, including revenue earmarking, high mandatory expenditure (over 80 percent of federal spending cannot be modified without legal changes), and the indexation of key spending items.

- *Limiting minimum wage increases to cost of living adjustments.* Minimum wage growth above productivity has lowered income inequality but it is now undermining job creation and lowering

potential growth. The minimum wage formula is up for review in 2019. Future minimum wage increases—which affect the growth of pensions and other benefits—should be limited to cost of living adjustments, with due consideration of the trade-off between employment creation and income inequality.

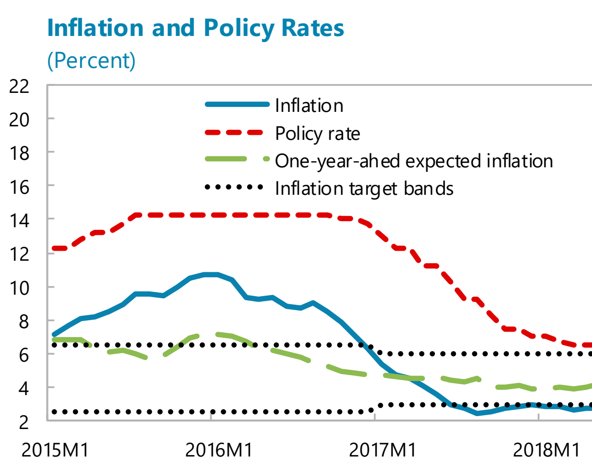
- *Strengthening revenue administration*, including revamping the administrative and judicial tax appeal system, granting powers to the revenue administration to recover arrears, and allowing for installment payments.
- *Reviewing the fiscal rules* while maintaining an ambitious consolidation path. The current fiscal framework includes a number of rules that complicate fiscal policy (Appendix V). The fiscal framework should be revamped to introduce simple, flexible, and enforceable rules consistent with debt sustainability.
- *Introducing a medium-term budget framework*, including publishing a medium-term fiscal policy statement, and improving reporting standards for all levels of government.

15. Subnational finances need to be bolstered. Three states (Minas Gerais, Rio de Janeiro, and Rio Grande do Sul) have debt above 200 percent of current revenues, the limit established by the Fiscal Responsibility Law. Of these, Rio de Janeiro is following a fiscal recovery program with the federal government. To contribute to the fiscal adjustment, the most important priority for subnational governments is to reduce personnel costs and reform pensions (which together account for about 57 percent of current state expenditure).

B. Maintaining an Accommodative Monetary Stance

16. The current accommodative monetary stance is appropriate given low inflation and anchored expectations. With the Selic rate at the historically low level of 6.5 percent, the ex-ante real rate has declined to 2.3 percent, below the estimated range of the natural rate (4–6 percent).[2] The current accommodative monetary policy stance is appropriate given that inflation is hovering slightly below the target range and the output gap is large. Inflation expectations are anchored around the 4.25 percent target for 2019. Looking ahead, monetary policy should stand ready to offset the contractionary effects of fiscal consolidation, especially if fiscal tightening is accelerated in line with staff's advice. If, on the

Inflation and Policy Rates
(Percent)



Sources: World Economic Outlook; and Central Bank of Brazil.

[2] The neutral rate estimates are uncertain, including due to the difficulty in assessing the potential effect of the recently introduced long-term interest rate used by public banks for subsidized lending.

other hand, the fiscal stance turns expansionary in 2019, monetary policy should tighten to offset possible inflationary effects.

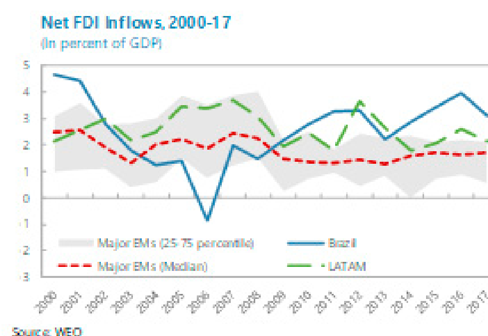
17. The flexible exchange rate regime is an important cornerstone of the policy framework. The exchange rate depreciation during the 2015–16 crisis supported a swift reduction of the current account deficit. Monetary policy should respond to exchange rate fluctuations only to offset possible second-round effects on inflation, while intervention in the foreign exchange market should be limited to episodes of excessive market volatility. International reserves at the current level provide an important buffer against large external shocks.

C. Preserving External Balance

18. Brazil's external position is broadly consistent with medium-term fundamentals and desirable policies. At slightly less than 35 percent of GDP, net foreign liabilities are moderate and the level of foreign reserves, at US$374 billion or about 160 percent of the ARA metric, remains high (Appendix II). External rollover needs for private and public debt are low, at about 8 percent of GDP per year. Furthermore, Brazil benefits from a large and steady flow of foreign direct investment, which more than finances the current account deficit (Box 4). Public debt is predominantly denominated in local currency, and FX debt in the private sector is mostly hedged. In 2017, the external position was broadly consistent with medium-term fundamentals and desirable policies according to the External Balance Assessment (EBA) and real effective exchange rate (REER) methodologies.

Box 4. FDI Inflows to Brazil

Over the past decade, Brazil has attracted substantially larger net FDI inflows than other EMs. Net inflows are driven by strong inward FDI and are large even if excluding debt instruments, mainly intercompany loans. FDI inflows are mostly directed to the service sector. This suggests that foreigner investors are primary interested in Brazil's large domestic market rather than on its export industry.



The presence of China in FDI to Brazil has increased considerably. A recent BCB (2018)[1] report analyzes the source of FDI inflows based on the residency of the ultimate investor that has effective control of the project, rather than using the residency of direct investors. The study shows a sizeable increase in the share of China from around one to 10 percent of equity FDI inflows during 2015-17.[2]

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[1] Banco Central do Brasil, 2018, "Relatório de Investimento Direto no País."

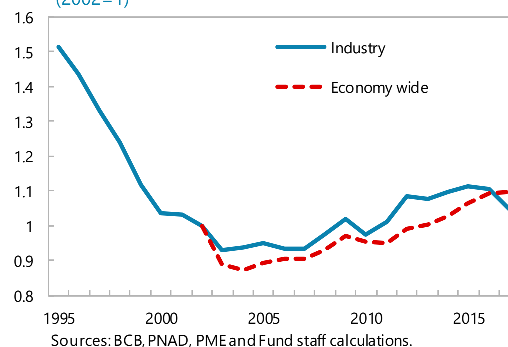
[2] A recent study by the Ministry of Planning, Development and Management also reported sizeable FDI projects related to Chinese firms (Bimonthly Newsletter on Chinese Investment in Brazil - nº 4).

19. Looking ahead, competitiveness should be improved. Since 2005 real wages have grown faster than labor productivity, increasing unit labor costs (ULC) and weakening external

competitiveness (Box 5). The ULC-based REER is indeed significantly more appreciated than in the early 2000s. To preserve external balance, it is thus important to limit future wage growth. By allowing more flexible contracts and wage negotiations, the 2017 labor market reform should improve efficiency and limit pressure in the private sector. Furthermore, authorities should contain public wages, which have grown relatively faster than private sector wages, potentially affecting reservation wages for the formal sector.

Box 5. Real Wages, Labor Productivity, and External Competitiveness

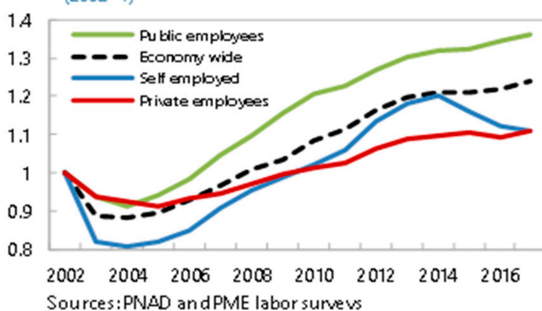
Over the last ten years, real unit labor costs have increased significantly. Since 2004 economy-wide real wages have risen faster than labor productivity, leading to a considerable increase in real unit labor costs. Industry wages, which are available for a longer time sample, show a similar upward trend but also reveal that unit labor costs remain below the levels of the late 1990s.



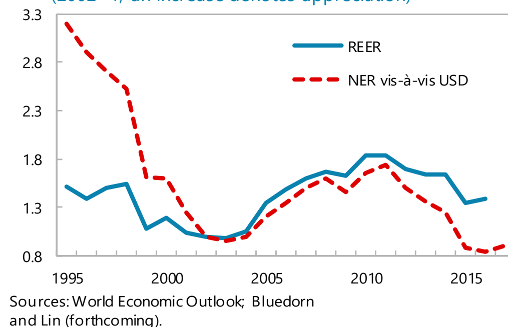
Sources: BCB, PNAD, PME and Fund staff calculations.

Wage growth has been especially strong in the public sector. A decomposition of wages by employment categories reveals that public wages have grown considerably faster than in the private sector. The public wage premium has increased even during the 2015–16 crisis when wage pressures in the private sector tapered off.

The nominal depreciation since 2011 has partly offset the effect of wage growth, reducing the appreciation of the real exchange rate. Between 2004 and 2011, the ULC-based real effective exchange rate increased sharply by about 80 percent, fueled by a nominal exchange rate appreciation and rising labor costs. Subsequently, the nominal depreciation especially at the time of the 2015 crisis, has led to a significant downward correction of the real exchange rate. The ULC-based REER is now about 30 percent above the values prevailing in the early 2000s and in line with the historical average since 1995.



Sources: PNAD and PME labor surveys



Sources: World Economic Outlook; Bluedorn and Lin (forthcoming).

D. Making the Financial System More Efficient

20. Banks are broadly resilient. Despite large losses during the 2015–16 recession, the recent FSAP found the banks to be well capitalized, profitable, and liquid, in large part thanks to high interest margins and fees. The FSAP systemic risk analysis suggests that bank solvency and liquidity

are broadly resilient to further severe macro-financial shocks. Four banks (public and private) would fail the solvency stress test, but with a small capital shortfall.[3] Some banks are also exposed to concentration, exchange rate, and market risk. Pillar 2 capital requirements could help mitigate identified risks in banks, supporting the need to build additional capital buffers for banks that failed the stress test.

21. Despite improvement, corporates remain vulnerable to shocks. Macro-financial shocks could increase debt-at-risk in the corporate sector—while firms use natural and financial hedging against their FX exposures, profitability and interest rate shocks could double the amount of debt at risk, especially in the manufacturing and energy sectors.

22. The recent FSAP has called for further action to strengthen the prudential, safety net, and macroprudential frameworks (Appendix IV). To strengthen the underpinnings of the BCB as the bank supervisor, the BCB's independence and legal protection of staff should be ingrained in law. The regulatory and supervisory approach should be upgraded to better deal with related party exposures and transactions, large exposures, country and transfer risk, and restructured loans. The existing resolution regime is inadequate and a new framework in line with the FSAP recommendations should be introduced promptly. The process for dealing with weak banks and emergency liquidity assistance (ELA) should be tightened to ensure that such assistance is not provided to insolvent banks. The deposit guarantee fund should be brought into the public sector to help prevent conflict of interest, retain the mandate for financial stability in the public sector, and improve the exchange of confidential information. The increasing complexity of the financial system and gaps in systemic risk oversight call for closer coordination among supervisory agencies—the creation of high-level multi-agency committees with mandates for macroprudential policy and crisis management should be a priority.

23. Raising the efficiency of financial intermediation would boost productivity. Intermediation costs in Brazil exceed peer countries, with operating costs, and credit losses being the main determinants. Across Brazilian banks concentration at the credit-product level and vertical integration and the share of earmarked credit also play a role (Box 6). To lower delinquency costs, the authorities should improve collateral enforcement and the judicial system. Proposed laws on corporate bankruptcy, electronic collateral registration and positive credit registry will help reduce banks' costs. A new regulation on Fintech will ease market entry and foster bank competition. A recently signed memorandum of understanding between the BCB and the competition authority, CADE, to collaborate on improving efficiency of the financial markets and legal initiatives on competition matters, will facilitate the authorities' efforts to improve bank competition. Despite these improvements, further actions are needed to facilitate client mobility, for example by improving the transparency and comparability of financial products. Besides phasing out the

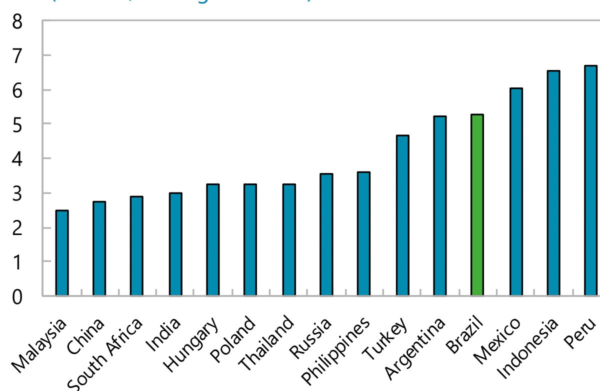
[3] The adverse scenario in the stress test simulates the effect on banks of a double-dip recession in which real GDP declines by a cumulative 9 percent from the 2017 level over two years—similar to the 2015−16 crisis. Materialization of the risks would trigger loss of confidence, capital flight, causing bond yields to spike, depreciation of the real, and a surge in inflation, counteracted by policy rate tightening. Banks would face a large increase in funding costs which would reduce their net interest margins and impair liquidity. The cut-off date for the exercise was 2017Q3- since then some banks have increased their capital ratios.

subsidized interest rate of BNDES in line with the recent TLP reform, the authorities should further limit state intervention in credit markets given that about half of credit is controlled by the state through earmarked loans that are directed to preferred borrowers at subsidized rates. These interventions have created an uneven playing field between private and public banks, increased the cost of free-market financial intermediation, involved high fiscal or parafiscal costs, weakened monetary transmission, and hampered capital market development.

Box 6. Determinants of Financial Intermediation (in)Efficiency

Net interest margins (NIM) are particularly high in Brazil. The NIMs of Brazilian banks are one of the highest among 15 peer emerging market economies. Among the top five banks, the lending-funding spreads of state-owned banks (who have high shares of directed lending) are significantly lower than those from private banks. The credit card market is the market with the highest spreads.

Net Interest Margins
(Percent; average 2008-16)



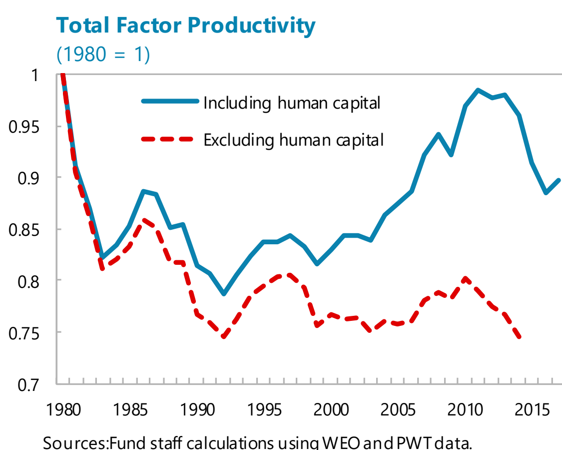
Sources: Fitch Connect and Fund staff calculations.

Operating costs, loan losses, and bank concentration at the product level play an important role in explaining high NIMs in Brazil. An accounting decomposition of NIMs suggests that operating costs are the main factor behind Brazil's high NIMs, followed by loan loss provisions. In addition to these two factors, the FSAP finds that market structure—in particular, concentration at the product level—is strongly correlated with net interest spreads. The banking sector is concentrated and vertically integrated, as the 5 largest banks account for 82 percent of credit. Caixa focuses on housing (75 percent of the market share) and low-income population and does not represent strong competition to the private banks in other product segments; Banco do Brazil focuses on agriculture (60 percent of the market share) mostly in areas not served by private banks. Other significant factors behind high NIMs are bank size—typically larger banks have wider spreads--and the volume of earmarked-credit provision—among private banks, the higher the share of earmarked credit in their lending portfolio the higher interest rates in free-market loans, which suggests that banks cross-subsidize their activities in regulated credit segments by raising rates in non-regulated sectors.

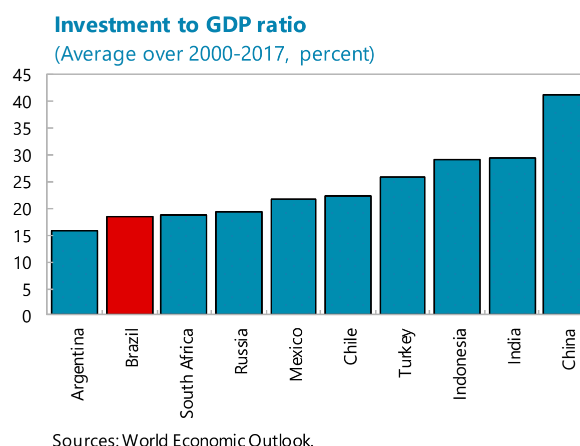
Earmarked credit has introduced inefficiencies outside the credit market. In the aftermath of the global financial crisis, earmarked credit was expanded as a countercyclical measure, reducing interest expenditure for firms. However, there is little or no evidence for positive effects of earmarked credit on investment and productivity. Moreover, earmarked credit has hampered capital market development and created an uneven playing field between public and private banks and impeded monetary policy transmission. The BCB's analysis shows that the impact of the monetary policy rate tightening on loans is lower for firms that receive earmarked credits: for firms that receive non-earmarked credit a one percent increase in policy rate reduces the growth rate of loans by three percent whereas for firms that have access to earmarked credit by 2 percent (Bonomo and Martins, 2016). In Brazil, inefficient capital allocation has been an important drag on productivity growth (Dutz et al, 2018). Finally, the ability to provide large loans at below market rates creates room for corruption and inefficient allocation of resources.

E. Boosting Potential Growth

24. Brazil has suffered from a prolonged period of stagnant productivity. Since the early 1980s, GDP has grown on average by about 2.6 percent per year, well below other major emerging markets. This relatively weak growth performance is largely explained by a lack of productivity growth compounded by low investment. The current level of TFP is indeed close to the one prevailing in the early 1980s. Raising productivity is especially important at this juncture to offset the ageing demographic trend that will weigh down on potential growth. The recent labor market reform and reduction in credit subsidies (TLP) are important steps in the right direction, but much more is needed.



Sources:Fund staff calculations using WEO and PWT data.



Sources: World Economic Outlook.

25. Authorities should accelerate the reform agenda, starting with banking sector reforms. Banking sector reforms that limit state intervention in credit markets would have large positive effects on productivity and broad public support (Box 7). Furthermore, some reforms could be carried out by provisional measures. For example, *Caixa Economica Federal* should refocus on its core mandate of providing mortgage credit and improve risk management and efficiency to boost its capital. Inviting a strategic investor could provide stronger corporate governance and know-how. BNDES should also scale down its lending portfolio by selectively assuming risks to mobilize private finance.

26. Trade liberalization should continue. Since the early 2000s, Brazil experienced several reversals in the path towards a more open and market-based economy. For example, the growing current account deficits following the 1990s trade liberalization halted trade reforms. Furthermore, non-tariff barriers, especially anti-dumping measures, increased considerably after the global financial crisis. Brazil's structural trade indicators now lag significantly other G20 countries and the literature suggests that trade openness can raise productivity significantly over the medium term. The 2015−16 crisis led also to a considerable increase in state-directed credit. The prospect of OECD accession can foster trade integration and avoid further backpaddling on structural reforms.

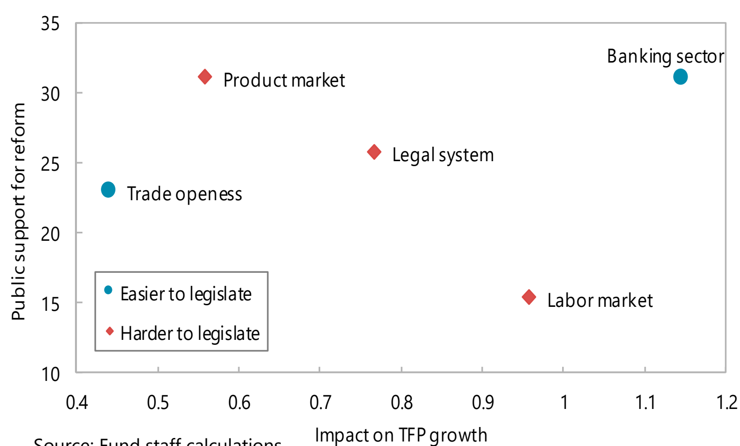
Box 7. Structural Reform Priorities for Brazil

This box identifies some key structural reform priorities for Brazil. Like many emerging markets, Brazil faces a long list of possible structural reforms. To prioritize the reform agenda, we propose to identify those reforms that have both high economic payouts and broad public support.

We assess the economic benefits of reforms following the literature. We estimate the impact of reforms on the one-year-ahead TFP growth using panel regressions over a sample of advanced and emerging countries. By multiplying the estimated coefficients with the structural gaps between Brazil and the average level in advanced economies, we can compute the impacts that various reforms would have on TFP growth in Brazil.

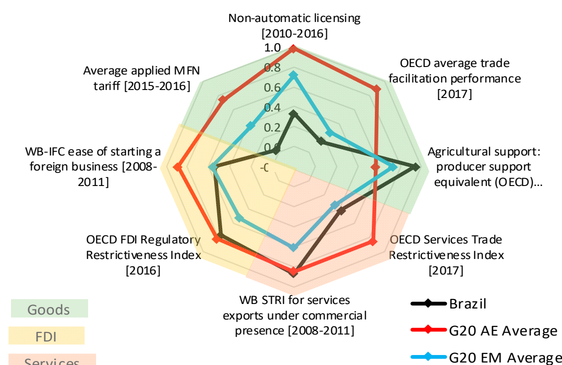
We measure the extent of public support for reforms by analyzing survey data. In 2016, Latin Barometer surveyed people's views about which factors are most important for the development of Brazil. By matching the survey responses to structural reforms, we assess the strength of public support for specific reforms.

Banking sector reforms should be given priority. As illustrated in the chart, they have the strongest economic impact and the highest level of public support. Structural indicators for the banking sector reveal that Brazil fares considerably worse than other countries because of the high level of state intervention in credit markets. Reforms should thus aim to foster a stronger and more efficient private credit market. Bank reforms are also relatively easy to legislate since various measures can be undertaken by the government without congressional approval.

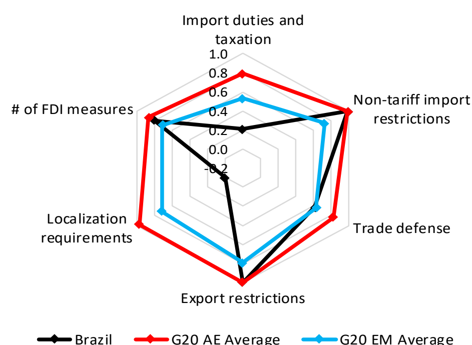


Source: Fund staff calculations

Overall Trade and FDI Regime
[year of data in square brackets]



Trade Restrictive Measures since 2008
(measures in effect as of end-January 2018)



Source: Fund staff estimates.

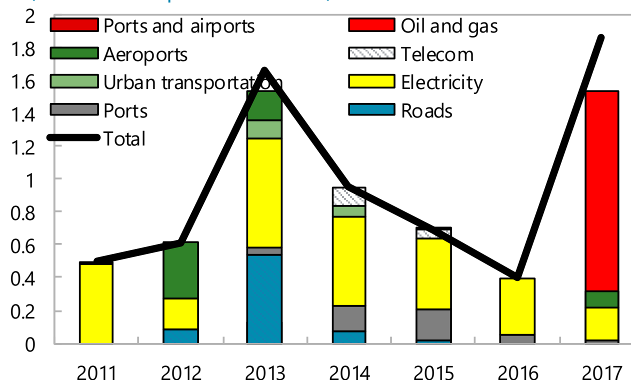
27. Investment in infrastructure should be revived. Brazil's infrastructure gap against peers and competitors, and relative to the country's development level, remains large and will become more binding as the recovery gains momentum. Under the new PPP framework launched at end-2016, several projects have been auctioned, mainly in the areas of oil and gas exploration, power generation and airport concessions. Investment in transport infrastructure would help alleviate bottlenecks, lower transaction costs, and facilitate growth. PPPs must be mindful of fiscal risks.

F. Responding to Shocks

28. The high level of public debt exposes Brazil to confidence shocks. Pronouncements against fiscal consolidation during the political campaign may spook investors. This concern is particularly acute if global risk aversion increases, for example because of faster than expected monetary tightening in the U.S. or financial distress in emerging markets. A downside scenario without fiscal consolidation would involve an exchange rate depreciation, an increase in interest rates, and possibly a recession. As described in the debt sustainability analysis, public debt would increase to almost 120 percent of GDP by 2023.

Annual Investments Through Concessions

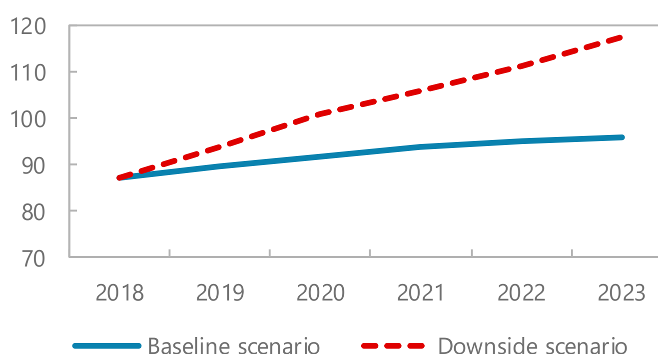
(awarded; in percent of GDP)



Source: Secretaria de Acompanhamento Economico do Ministerio da Fazenda.

Gross Nominal Public Debt

(Percent of GDP)



Source: Staff's estimates.

29. Authorities should respond to confidence shocks by adopting additional fiscal measures. This is essential to show a resolute commitment to debt sustainability. The exchange rate should be allowed to absorb the shocks. However, in case of disorderly market conditions, foreign exchange intervention might be warranted. Furthermore, monetary authorities may have to increase policy rates to offset the second-round effects on inflation arising from the exchange rate depreciation. A resumption of counter-cyclical lending through public banks should be avoided given the distortive effects in the credit market and possible contingent liabilities for public finances.

30. Negative trade shocks may require additional monetary accommodation. Trade restrictions imposed by the U.S. or a sharp economic slowdown in China could hurt Brazilian exports. To offset the contractionary effects on output, monetary authorities should respond by reducing policy rates, provided inflation expectations remain anchored around the target. Fiscal policy should

instead stay on the path of consolidation since the high level of debt does not provide room for fiscal stimulus. To support the export sector, authorities should foster trade integration by negotiating new agreements both at the regional and global level.

G. Strengthening Governance

31. The effective implementation of anti-money laundering and anti-corruption measures remains critically important to help secure strong and inclusive growth. Past legal and policy changes (partially in response to previous FATF assessments), such as the introduction of plea bargains and leniency agreements, supported by some strong and independent law enforcement and judicial authorities, have led to an increasing number of anti-money laundering and corruption cases (Box 8). Authorities should continue pursuing significant corruption and money laundering cases, and work with the legislature to adopt relevant pending reforms to further strengthen the anti-money laundering and anti-corruption framework. This includes strengthening whistleblower mechanisms, provisional measures and confiscation, and in line with recent jurisprudence, continuing to prevent the abuse of appeal provisions and statutes of limitations in legal proceedings.

32. Preventive actions to stem the flow of money laundering and corruption cases on the longer term remain key. Authorities can base new initiatives on existing achievements, to enhance the effectiveness of the system in line with international standards. Notably, the existing Transparency Portal has been updated, and additional data would further increase its usefulness. The tax authorities have started to collect beneficial ownership data, and these data should be also available to other government entities that need this information for anti-money laundering and anti-corruption purposes. Authorities are planning to undertake the national anti-money laundering risk assessment, which should be finalized expeditiously to increase the effectiveness of risk understanding and risk mitigation. Financial supervisors are at various stages of introducing risk-based supervision specific for anti-money laundering. Supervision can be further refined, notably by applying risk matrixes independent of prudential classifications.

33. Other additional measures are also considered. Authorities are in the process of implementing departmental integrity programs and are considering measures to move away from a rule-based to a risk-based approach for preventing corruption, including for procurement. To support this shift, authorities should consider taking measures to protect government employees by law from criminal and civil liability when acting in good faith. Finally, to avoid increasingly negative public statements by the Financial Action Task Force, authorities should continue working with the legislature to expeditiously address existing shortcomings related to terrorist financing.

Box 8. Setting a High Bar Against Corruption

The fight against corruption is ongoing, driven by some strong and independent law enforcement and judicial authorities. In the *lava jato* case under the jurisdiction of the state of Paraná alone, judicial authorities have instigated 1,765 court proceedings, issued 240 arrest warrants, and charged 309 defendants in 74 separate prosecutions with money laundering, corruption, and forms of organized crime (as of May 14, 2018). Although this investigation is gaining a lot of the public attention, other corruption cases have also been pursued which include cases independent of the *lava jato* (in Rio de Janeiro, in Sao Paulo and by the federal police), *lava jato* spin-offs (such as cases involving *Odebrecht* and *JBS*), and numerous standalone corruption cases, such as *Greenfield* (involving pension funds), *Panatenaico* (inflation of public work bids), *Zelotes* (tax appeals board case) and *Câmbio, desliga* (money laundering). While no consolidated data on the total number of corruption cases and related judicial actions are kept for all of Brazil, the list of cases itself is very high.

Despite much international attention attracted by Brazil's investigation efforts, the level of corruption in Brazil may be comparable to other countries in Latin America. As a comparison of recent FATF and GAFILAT detailed assessment reports on the implementation of AML/CFT regimes and the risks facing countries in the region shows, corruption is considered as one of the main proceeds generating offenses for money laundering across the region (i.e., corruption as a predicate offense for money laundering). Within the region, corruption cases have spilled-over across borders, with many involving senior politicians and business people (such as the Odebrecht case). The relative high number of money laundering and related corruption investigations and prosecutions in Brazil may be an indication of competence, independence and impartiality of the authorities in addressing corruption, and not necessarily an indicator that corruption is more widespread in Brazil than elsewhere in the region.

Changing societal norms that enable corruption requires continuing and intensifying current efforts for years to come. *Lava jato* alone will not have a lasting positive impact on Brazil's corruption risks unless the fight against corruption is intensified and further expanded. Authorities will need to continue to enable strong and independent law enforcement and judicial authorities that can investigate and prosecute corruption cases at all levels of society. At the same time, to reduce corruption risks in the long term, repression alone will be insufficient to support lasting changes, and other reforms will be necessary. A lesson learned from earlier corruption drives is that authorities must continue to improve the effectiveness of the criminal justice system, and implement preventive actions to reduce money laundering and corruption risks on the longer term. Measures such as those elaborated in this staff report would go a long way in containing the risk of corruption, by preventing corruption and by ensuring that all those who are found guilty of corruption are also punished.

AUTHORITIES' VIEWS

34. The authorities envisage a sustained economic recovery. They concur that the weak economic data during the first months of 2018 suggest that growth will be moderate this year. However, the authorities believe that the 2015–16 crisis did not have as large permanent effects on potential output as assumed by the staff. Moreover, recent and ongoing structural reforms initiatives (labor market, education, immigration, competition in the oil and gas sector, among others) should boost productivity and potential growth. The authorities believe that the risks that inflation undershoots its target this year have fallen as a result of the recent exchange rate depreciation.

35. The authorities see faster fiscal consolidation than implied by the expenditure ceiling depending on revenue performance. The authorities recognize that a rethinking of the size of the

government, beginning with the pension reform, is critical to meet the expenditure ceiling in the medium term. They reminded that discretionary expenditure under the control of the treasury—about 10 percent of federal expenditure—has been greatly contained. They noted that wage increases reflect previous binding agreements. The authorities have also optimized social benefits eligibility, where possible. But with the elections and the constraints to Congressional calendar this year, substantial savings in mandatory spending items will need to be taken by the next government. Nevertheless, the authorities point that any revenue, in addition to what is currently budgeted, will not be used for new spending because of the expenditure ceiling, and thus will help reduce public debt. They also expect that debt service would remain contained reflecting structurally lower interest rates. The authorities see scope for revenue-neutral tax reform, aiming at simplifying and harmonizing the tax system, starting with PIS/COFINS reforms. They reassured staff that the state of Rio de Janeiro is already implementing corrective measures under the fiscal recovery plan.

36. The authorities agreed on the importance of continuing to strengthen the fiscal framework. They point to progress in enhancing budget transparency and monitoring, including at the subnational government level. They also indicate that steps are being taken toward medium-term budgeting. For example, this was the first year where a more detailed multiannual budget guidance was produced. The authorities consider crucial to ensure that the fiscal rules are consistent and lead to fiscal consolidation. They agree that in the medium term it is critical to address widespread rigidities imposed by earmarking and mandatory outlays, including for the subnational governments. They see the expenditure ceiling as essential for instilling fiscal discipline in the years ahead and revisiting these budget rigidities.

37. The Central Bank maintains prudent monetary and exchange rate policy, consistent with its inflation targeting regime. Monetary policy decisions continue to be based on inflation projections, expectations and the balance of risks. Exchange rate movements do not pose financial stability concerns and affect monetary policy only through their second-round effects on inflation and inflation expectations. The currency will continue to float freely, the central bank has no exchange rate target. In case of disorderly market conditions, the authorities stand ready to intervene by relying on the large level of foreign reserves in the spot market or through swaps. Authorities pointed out that recent reforms to reduce public subsidies in credit markets are enhancing monetary transmission and will help increase the efficiency of the system. They also emphasized that fiscal reforms are essential to maintain low inflation and reduce neutral interest rates in the medium and long term.

38. The authorities argued that proposed legislation on the financial sector will boost its resiliency and address most of the FSAP recommendations. Legislation granting central bank independence and legal protection to its staff, strengthening bank resolution framework, and creating a committee responsible for macroprudential policy and crisis management are under way. The authorities pointed out that the central bank already has an indemnity with respect to general losses, including those which could stem from ELA. The authorities do not plan to transform the FGC (*Fundo Garantidor de Credito*) into a public institution because the FGC, as a private entity, works well to ensure the efficiency and stability of the financial system. The central bank is already working

on new regulation on supervision of related party and large exposures, in line with FSAP recommendations. The authorities have also taken steps to enhance account portability. They disagreed with staff's recommendation regarding supervision of country and transfer risks arguing that the current monitoring tools already in place ensure timely identification of those risks and swift supervisory actions. The central bank also noted that the current supervisory processes ensure close monitoring of restructured loans and the extent of inappropriate forbearance. Moreover, the central bank is already taking steps to improve the Pillar 2 capital requirements' framework to address bank-specific risk profiles which will boost their resilience.

39. The authorities concurred with the need for further structural reforms. Important financial sector reforms were implemented in the recent past, including a reduction of public subsidies with the introduction of the TLP and the gradual scaling down of BNDES. The authorities foresee further refocusing of BNDES, shifting operations towards co-financing and projects to provide market access and facilitate long-term financing. They noted that Caixa is already moving away from non-core activities, and improving governance. Also under BC+ agenda, several steps have been taken to enhance efficiency and to reduce the cost of credit. In this regard, the authorities have taken steps to improve lending guarantees, enhance and disseminate information in the system and foster additional competition. They also emphasized the importance to increase recovery values and lower operational costs. On labor markets, the 2017 reform has reduced litigation very significantly, but employment gains have been slow to materialize given the gradual economic recovery. The authorities have also reiterated their commitment to foster trade integration and reduce distortions in the tax system.

40. The authorities agreed that transparency and anti-corruption measures are an important part of the effort to improve long-term prospects for Brazil. They noted their efforts to pursue significant corruption and money laundering cases and implement reforms to increase the effectiveness of the criminal justice system, and pointed at relevant recent supreme court jurisprudence. They stressed their commitment to continued strengthening of governance and transparency, including through the expeditious undertaking of the national risk assessment. They noted the strong progress in the implementation of the beneficial ownership requirements for both financial institutions and relative to the recording of the formation of corporate vehicles, since 2009, and also underlined improvements in information sharing provisions. The authorities remain committed to continue to work on enhancements so as to improve the effectiveness of these provisions.

STAFF APPRAISAL

Placing Brazil on a path of strong, balanced, and durable growth requires an earnest pursuit of fiscal consolidation, ambitious structural reforms, and a strengthening of the banking sector's underpinnings. This will require strong leadership and resolve.

41. Fiscal consolidation should accelerate. To secure sustainability and rebuild buffers, primary balance should be strengthened at a faster pace than planned to achieve a decline in public

debt by 2023. In this context, a widening of the primary deficit in the 2018 budget relative to the 2017 outturn is unwarranted, especially given the adverse debt dynamics and tightening global financial conditions.

42. Pension reform is imperative. A comprehensive reform should aim at increasing the retirement age, delinking the minimum pension from the minimum wage, and moderating the undue generosity of pensions for some segments of the populations, notably public employees. Such reform will improve equity and subnational government finances.

43. Additional measures are needed to reduce the deficit, while protecting public investment and social expenditures that have been effective. The 2019 revision of the minimum wage adjustment formula provides an opportunity to contain mandatory spending. Moreover, reforms of public sector employment and compensation are needed to make the wage bill sustainable, reduce labor market distortions, and alleviate income inequality. Spending efficiency should be increased to create fiscal space, even as expenditures for social programs that have proven to be effective, including *Bolsa Familia*, and public investment are protected and, if possible, increased. Tax measures aimed at improving efficiency and bolstering revenues should be prioritized.

44. The monetary stance is appropriate. With inflation below target, reflecting the large output gap, and inflation expectations well-anchored, monetary policy should remain accommodative. Enhancing central bank independence would further improve the inflation-targeting framework.

45. The flexible exchange rate regime is an important cornerstone of the policy framework. Intervention in the foreign exchange market should be limited solely to addressing acute market volatility. International reserves at the current level provide an important buffer against external shocks. Monetary policy should respond to movements in the exchange rate only insofar as there are clear risks for inflation expectations. Staff assesses that Brazil's external position in 2017 was broadly consistent with medium-term fundamentals and desirable policies.

46. The underpinnings of the banking sector should be strengthened. Independence of the BCB and legal protection of its staff would strengthen micro-prudential and safety net frameworks. The regulatory and supervisory approach should be upgraded to address gaps identified by the FSAP. Creating multi-agency committees with mandates for macroprudential policy and crisis management should be established and operationalized. A new financial resolution regime in line with the FSAP recommendations should be put in place promptly. The process for providing emergency liquidity assistance should be tightened and the deposit guarantee fund should be brought into the public sector.

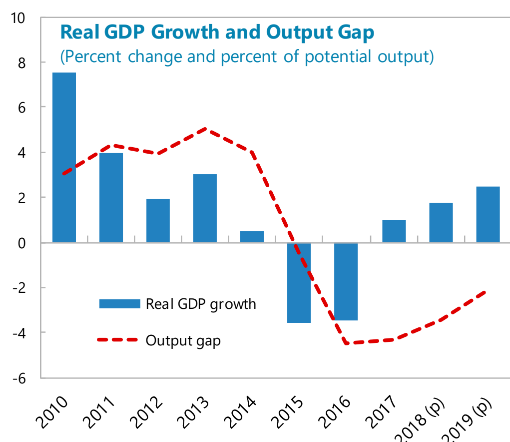
47. Advancing the structural reform agenda requires setting clear priorities. Brazil faces a long list of structural reforms that can boost productivity, but prioritization is key. Staff underscores the importance of measures to improve financial intermediation, enhance trade integration, and tackle corruption.

48. Ongoing efforts to combat corruption are of the highest importance. It is vital for Brazil to strengthen AML supervision and governance, and further implement pending transparency, anti-corruption and AML measures.

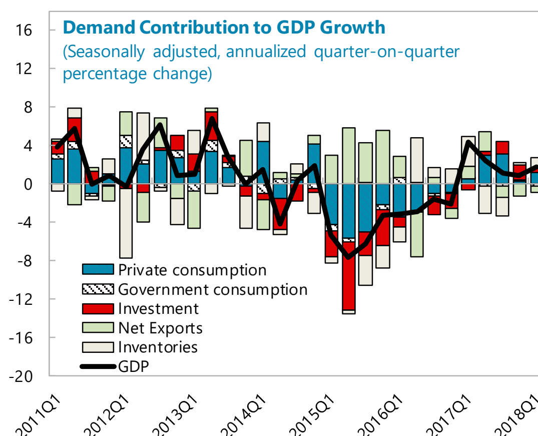
49. It is recommended that the next Article IV consultation takes place on the standard 12-month cycle.

Figure 1. Brazil: Recent Economic Developments

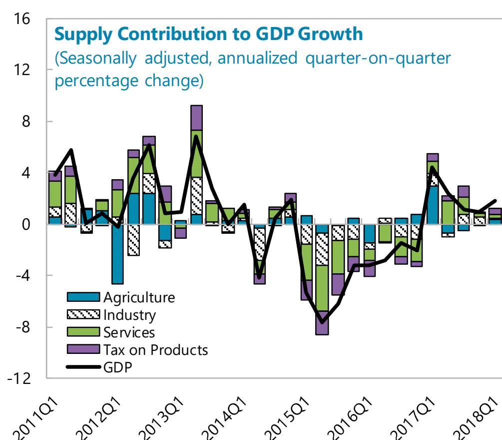
After a sharp recession in 2015-2016, the recovery is strenghtening



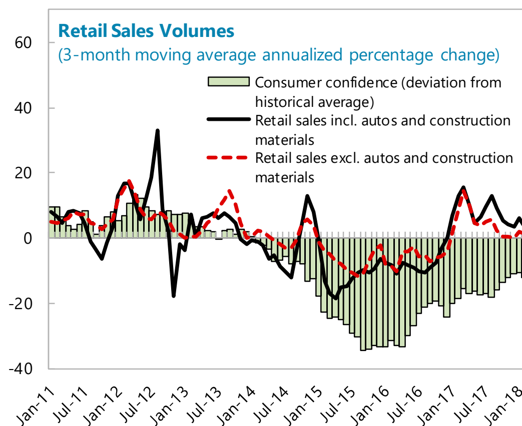
Private consumption and investment are driving the recovery



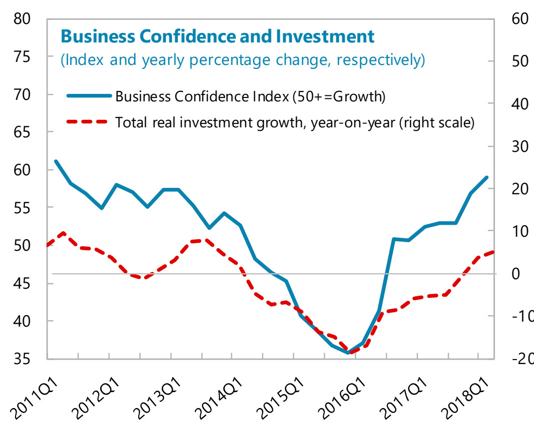
The recovery is broad-based across sectors



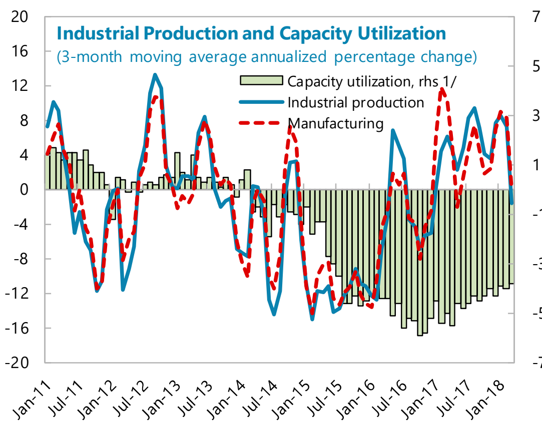
Retail sales are growing and consumers' confidence is gradually strenghtening



Business confidence has improved and investment is growing



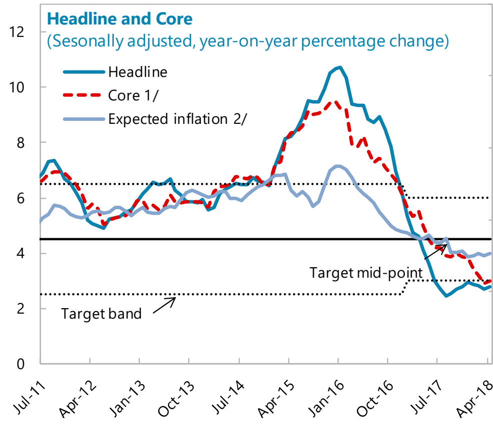
Industrial production is recovering, but capacity utilization remains well below historical averages



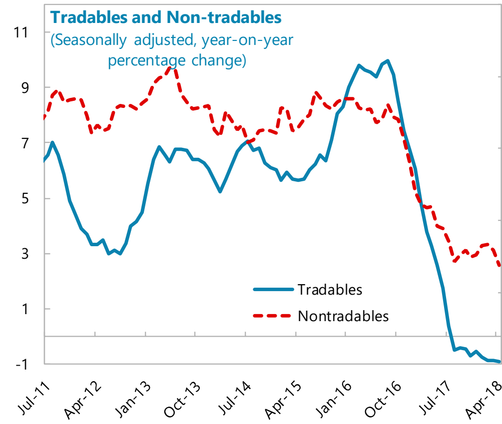
Sources: Haver analytics; IBGE; and Fund staff estimates.
1/ Difference between the current rate and the 10-year average in percentage points.

Figure 2. Brazil: Monetary Sector

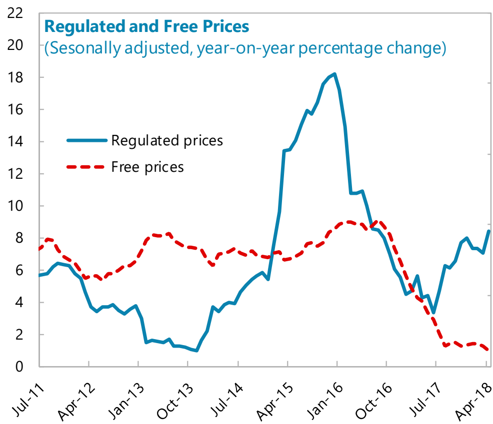
Inflation has declined slightly below the target range, while inflation expectations are well anchored



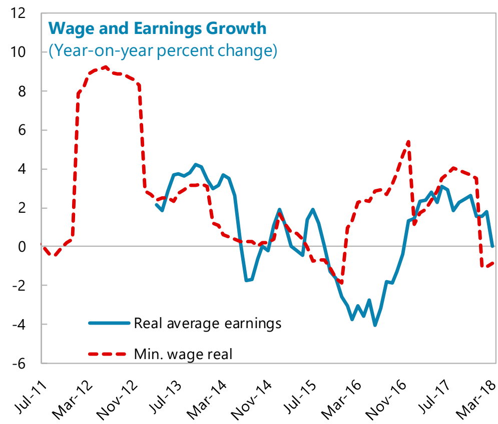
Inflation has declined mostly in the tradable sector because of a sharp drop in food prices



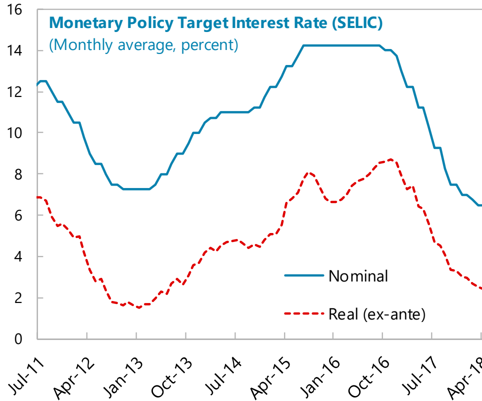
Regulated-price inflation has resumed, while free-price inflation remains subdued



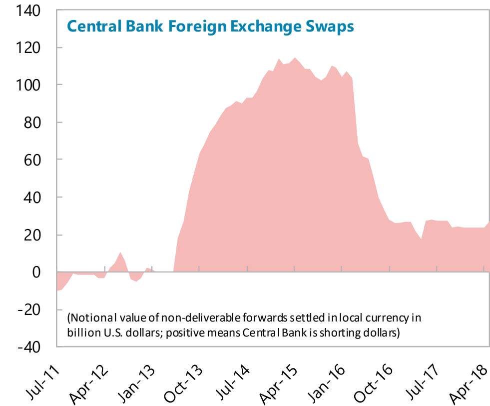
Real wages are growing again



The central bank has cut the policy rate to historic lows



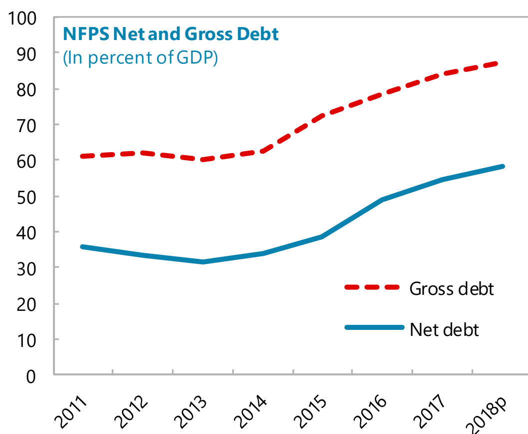
As demand for dollar hedge declined, the central bank has significantly reduced the stock of FX swaps



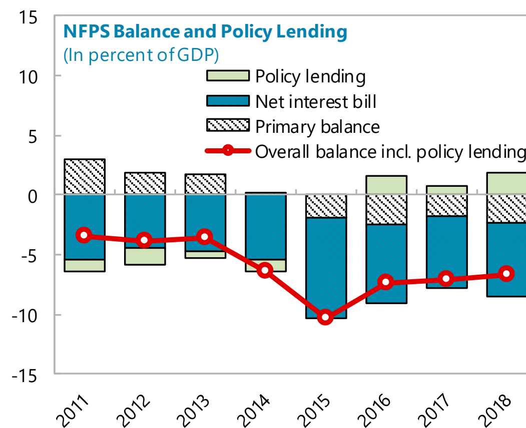
Sources: Haver Analytics, IBGE, and Fund Staff calculations.
1/ Extended Consumer Price Index, Exclusion Core (IPCA-EX1).
2/ 12 month ahead IPCA (Central Bank of Brazil)

Figure 3. Brazil: Fiscal Policy

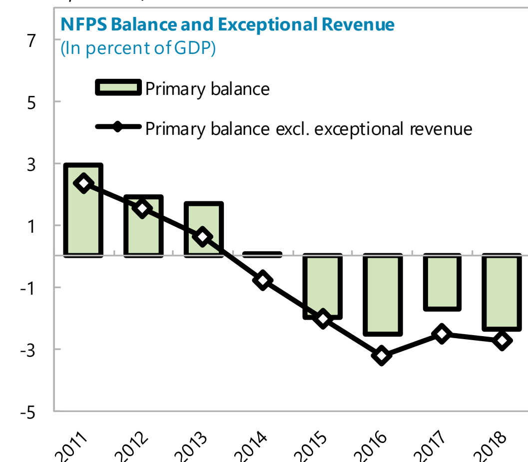
Gross debt has increased to 84 percent of GDP.



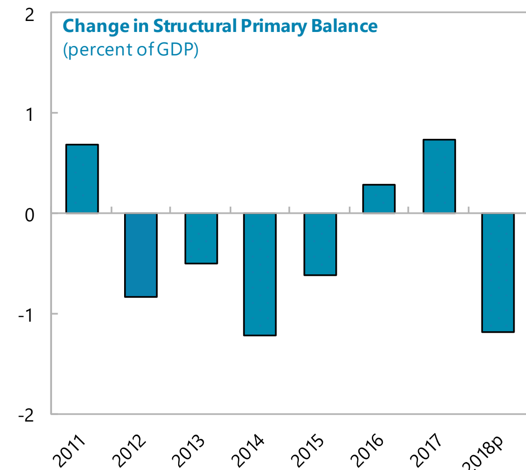
The overall fiscal balance remains negative due to primary deficit and interest bill.



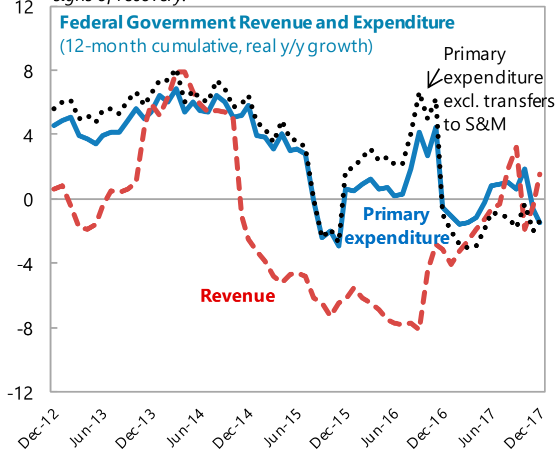
Excluding exceptional revenue, the primary deficit remains around 2.5 percent of GDP



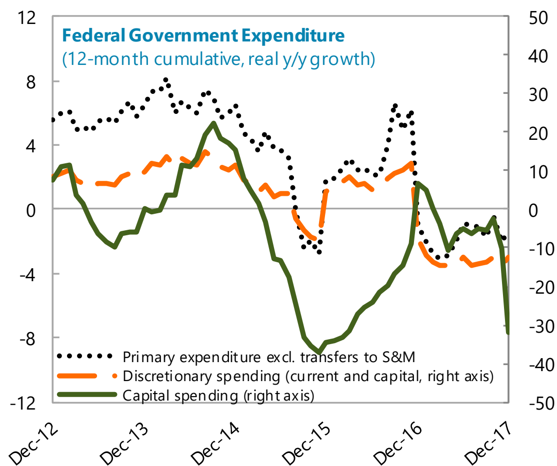
After two years of consolidation, the fiscal stance (excluding policy lending) is projected to loosen in 2018



Primary expenditure remains contained and revenue shows signs of recovery.



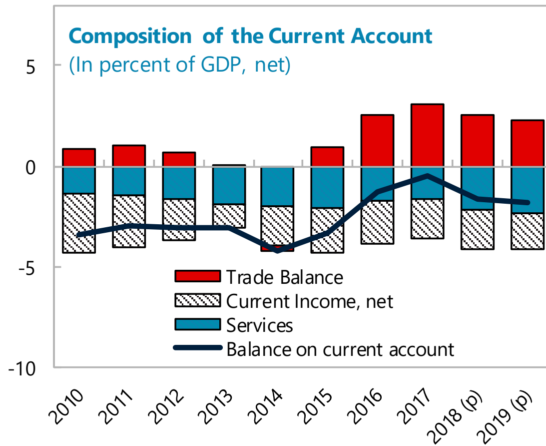
Capital expenditure has been reduced substantially.



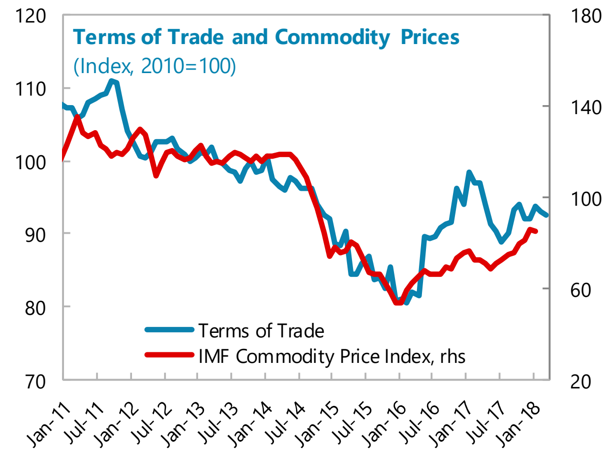
Sources: Central Bank of Brazil, IBGE, Haver Analytics, and Fund staff calculations.

Figure 4. Brazil: External Sector

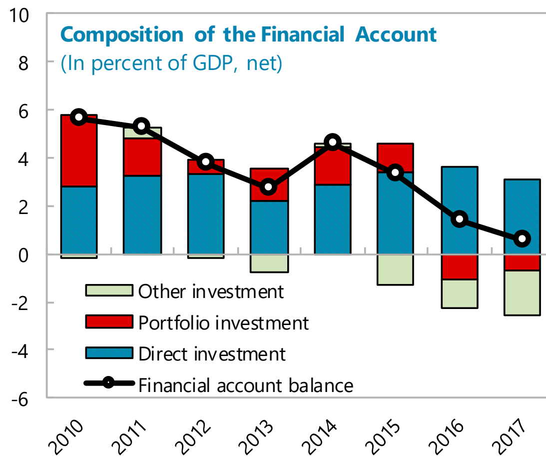
After a significant improvement during the 2015-16 crisis, the current account is expected to gradually deteriorate…



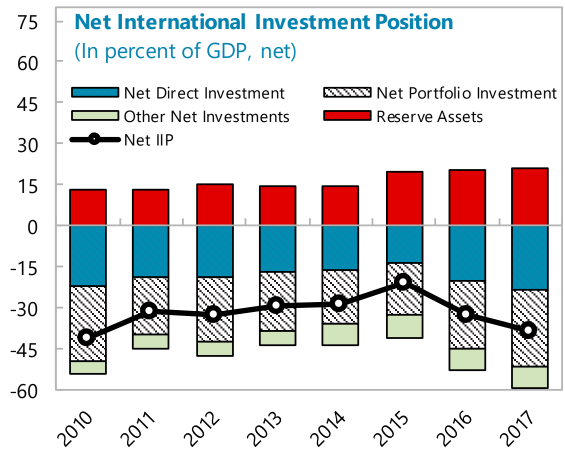
… despite an improvement in the terms of trade



FDI inflows have remained fairly stable



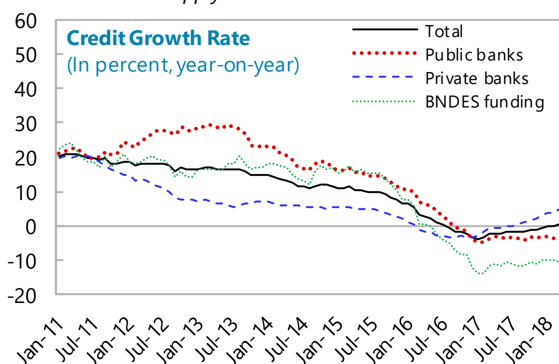
The net international investment position is gradually deteriorating



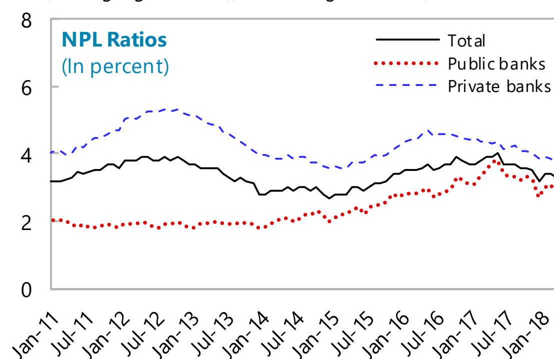
Sources: Central Bank of Brazil; Haver Analytics; and Fund staff calculations.

Figure 5. Brazil: Financial Sector

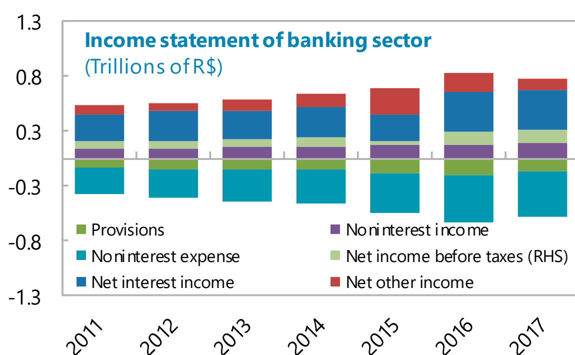
Credit growth decelerated, reflecting both weak loan demand and conservative supply.



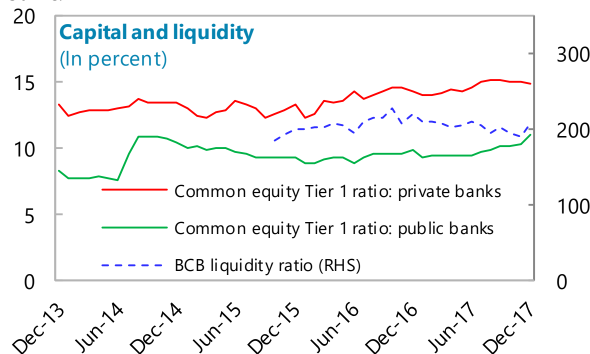
Non-performing loans have been stable in 2017 reflecting high write-offs and renegotiation of loans.



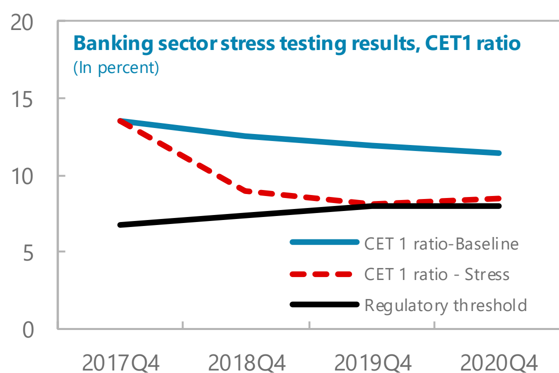
Profits before taxes increased due to lower funding costs allowances for credit losses.



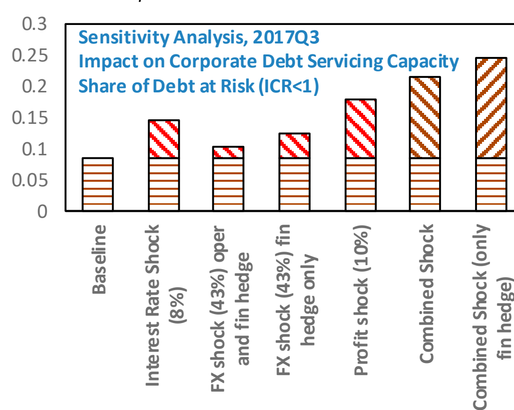
Capital and liquidity remain above the regulatory minima but capital ratio of public banks are below those of private banks.



Banks would be broadly resilient to the stress scenario.



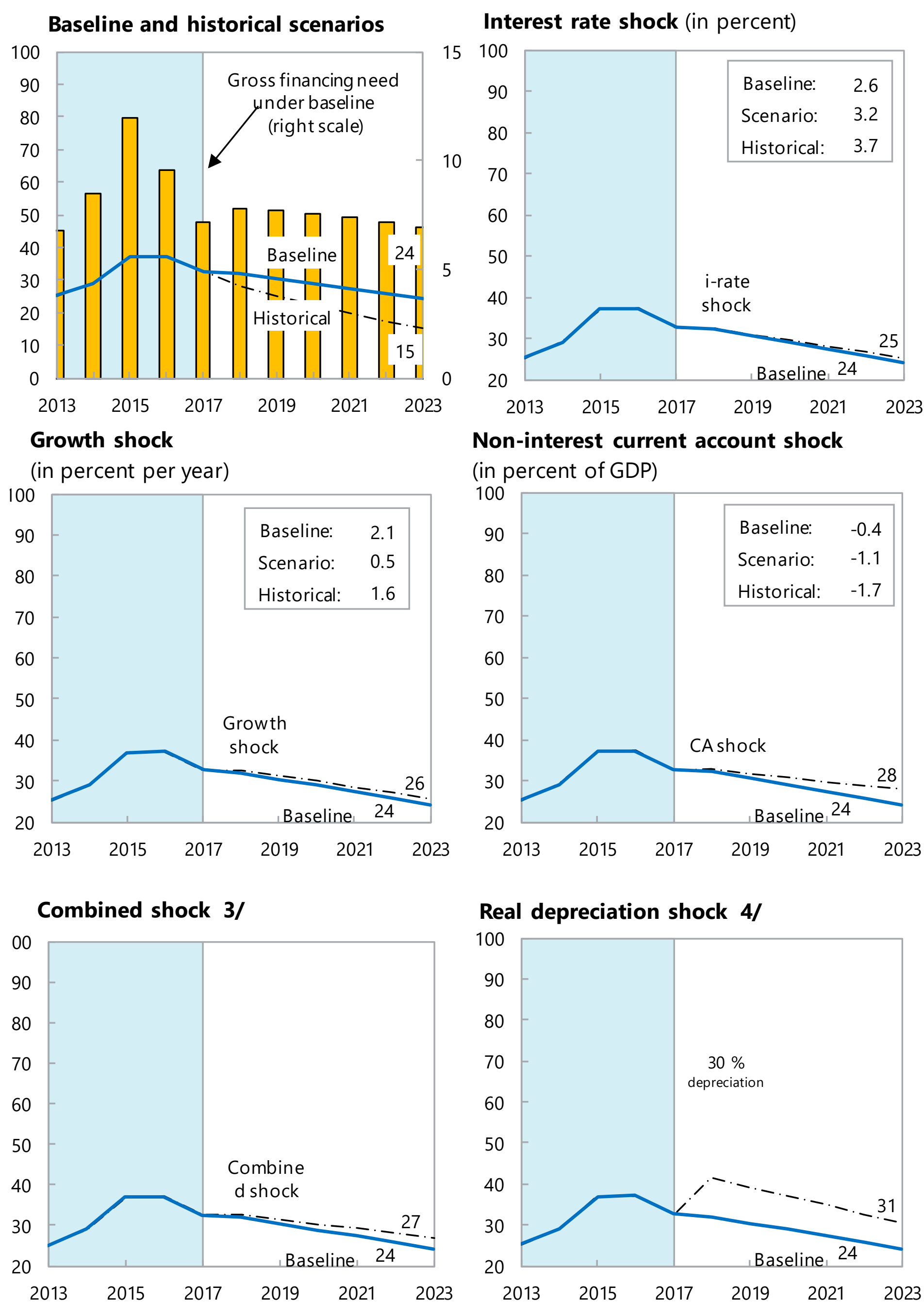
Credit losses would be partly driven by higher losses to the corporate sector



Sources: BCB, Capital IQ, CEIC; and Fund staff calculations.

Figure 6. Brazil: External Debt Sustainability Bound Test, 1/ 2/

(In percent of GDP, unless otherwise indicated)



Sources: International Monetary Fund, Country desk data, and staff estimates.
1/ Shaded areas represent actual data. Individual shocks are permanent one-half standard deviation shocks. Figures in the boxes represent average projections for the respective variables in the baseline and scenario being presented. Ten-year historical average for the variable is also shown.
2/ For historical scenarios, the historical averages are calculated over the ten-year period, and the information is used to project debt dynamics five years ahead.
3/ Permanent 1/4 standard deviation shocks applied to real interest rate, growth rate, and current account balance.
4/ One-time real depreciation of 30 percent occurs in 2018.

Table 1. Brazil: Selected Economic Indicators, 2016–23

I. Social and Demographic Indicators

Area (thousands of sq. km)	8,512	Health	
Agricultural land (percent of land area)	31.2	Physician per 1000 people (2018)	2.1
		Hospital beds per 1000 people (2018)	2.0
Population		Access to safe water (2015)	98.1
Total (million) (est., 2018)	208.8		
Annual rate of growth (percent, 2015)	0.8	Education	
Density (per sq. km.) (2018)	24.5	Adult illiteracy rate (2016)	7.2
Unemployment rate (latest, Apr 2018)	13.1	Net enrollment rates, percent in:	
		Primary education (2016)	99
Population characteristics (2016)		Secondary education (2015)	84
Life expectancy at birth (years)	76		
Infant mortality (per thousand live births)	13	Poverty rate (in percent, 2017) 1/	25.4
Income distribution (2016)		GDP, local currency (2017)	R$6,559 billion
By highest 10 percent of households	40.9	GDP, dollars (2017)	US$2,055 billion
By lowest 20 percent of households	3.6		
Gini coefficient (2016)	52.5	GDP per capita (est., 2017)	US$9,896

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

II. Economic Indicators

	2016	2017	2018	2019	2020	2021	2022	2023
			Proj.					
			(Percentage change)					
National accounts and prices								
GDP at current prices	4.4	4.8	4.9	7.5	7.2	7.1	7.1	7.1
GDP at constant prices	-3.5	1.0	1.8	2.5	2.3	2.2	2.2	2.2
Consumption	-3.4	0.6	1.5	1.9	1.2	1.0	1.4	1.9
Investment	-14.3	2.9	7.7	8.6	8.8	8.3	6.1	3.8
Consumer prices (IPCA, end of period)	6.3	2.9	3.5	4.1	4.0	4.0	4.0	4.0
			(Percent of GDP)					
Gross domestic investment	15.4	15.5	16.2	16.9	17.8	18.7	19.3	19.5
Private sector	13.6	13.8	14.5	15.3	16.3	17.2	17.9	18.2
Public sector	1.8	1.7	1.7	1.6	1.5	1.4	1.4	1.3
Gross national savings	14.1	15.0	14.9	15.4	16.2	16.9	17.4	17.6
Private sector	21.2	21.0	21.6	21.5	22.1	22.5	22.7	22.7
Public sector	-7.1	-6.0	-6.7	-6.1	-5.9	-5.6	-5.4	-5.1
Public sector finances								
Central government primary balance 2/	-2.6	-1.8	-2.3	-1.8	-1.3	-0.6	0.0	0.5
NFPS primary balance	-2.5	-1.7	-2.4	-1.8	-1.1	-0.4	0.2	0.7
NFPS cyclically adjusted primary balance	-1.2	-0.5	-1.4	-1.2	-0.8	-0.3	0.2	0.7
NFPS overall balance (including net policy lending)	-9.0	-7.9	-8.5	-7.8	-7.5	-7.1	-6.8	-6.5
Net public sector debt	46.2	51.6	56.2	59.9	62.9	65.7	67.7	68.9
General Government gross debt, Authorities' definition	70.0	74.0	…	…	…	…	…	…
NFPS gross debt	78.4	84.0	88.2	90.4	92.4	94.2	95.1	95.6
Of which: Foreign currency linked	3.8	3.6	3.5	3.2	3.0	2.8	2.8	2.8
			(Annual percentage change)					
Money and credit								
Base money 3/	8.1	0.5	4.9	7.5	7.2	7.1	7.1	7.1
Broad money 4/	12.4	0.3	7.9	10.9	13.8	14.6	14.5	14.5
Bank loans to the private sector	-2.9	-0.9	2.7	7.3	7.7	8.4	8.0	8.6
			(Billions of U.S. dollars, unless otherwise specified)					
Balance of payments								
Trade balance	45.0	64.0	59.4	55.4	55.6	57.8	60.3	62.6
Exports	184.5	217.2	234.1	242.8	253.5	265.7	277.8	289.5
Imports	139.4	153.2	174.7	187.4	197.9	207.9	217.4	226.9
Current account	-23.5	-9.8	-24.4	-30.5	-35.1	-39.3	-43.8	-46.9
Capital account and financial account	16.7	6.5	24.4	30.5	35.1	39.3	43.8	46.9
Foreign direct investment (net)	65.4	64.1	60.0	55.1	50.7	48.8	48.1	48.7
Terms of trade (percentage change)	3.0	-0.8	-1.3	-0.8	-0.8	-0.4	-0.1	0.0
Merchandise exports (in US$, annual percentage change)	-3.0	17.8	7.8	11.8	8.3	4.8	4.5	4.2
Merchandise imports (in US$, annual percentage change)	-19.1	9.9	14.0	22.3	13.3	5.1	4.6	4.3
Total external debt (in percent of GDP)	37.2	32.5	32.0	30.4	28.9	27.3	25.7	24.2
Memorandum items:								
Current account (in percent of GDP)	-1.3	-0.5	-1.2	-1.4	-1.5	-1.6	-1.7	-1.8
Unemployment rate	11.3	12.8	11.6	10.5	10.1	9.8	9.5	9.5
Gross official reserves	365.0	374.0	374.0	374.0	374.0	374.0	374.0	374.0
REER (annual average in percent; appreciation +)	6.8	9.6	…	…	…	…	…	…

Sources: Central Bank of Brazil; Ministry of Finance; IBGE; IPEA; and Fund staff estimates.

1/ Computed by IBGE using the World Bank threshold for upper-middle income countries of U$5.5/day. This number is not comparable to the estimates provided by IPEA in previous years due to methodological differences.

2/ Includes the federal government, the central bank, and the social security system (INSS). Based on the 2017 draft budget, recent annoucements by the authorities, and staff projections.

3/ Currency issued plus required and free reserves on demand deposits held at the central bank.

4/ Base money plus demand, time and saving deposits.

Table 2. Brazil: Balance of Payments, 2016–23

(In billions of U.S. dollars, unless otherwise indicated)

	2016	2017	2018	2019	2020	2021	2022	2023
			Proj.					
Current Account	**-23.5**	**-9.8**	**-24.4**	**-30.5**	**-35.1**	**-39.3**	**-43.8**	**-46.9**
Trade balance	45.0	64.0	59.4	55.4	55.6	57.8	60.3	62.6
Exports (fob)	184.5	217.2	234.1	242.8	253.5	265.7	277.8	289.5
Imports (fob)	139.4	153.2	174.7	187.4	197.9	207.9	217.4	226.9
Income, net	-38.1	-39.9	-39.9	-35.4	-36.0	-39.0	-42.2	-44.3
Capital and Financial Account	**16.7**	**6.5**	**24.4**	**30.5**	**35.1**	**39.3**	**43.8**	**46.9**
Capital account	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Financial account 1/	16.4	6.1	24.0	30.1	34.7	39.0	43.5	46.5
Direct investment, net	65.4	64.1	60.0	55.1	50.7	48.8	48.1	48.7
Assets	12.8	6.3	7.7	8.9	9.8	10.8	11.8	12.8
Liabilities	78.2	70.3	67.8	64.0	60.5	59.5	59.9	61.5
Portfolio investment, net	-19.2	-13.4	-7.4	-3.2	-2.4	-1.7	-1.1	-0.3
Financial Derivatives, net	1.0	-0.7	-0.8	-0.8	-0.8	-0.9	-0.9	-1.0
Other investment, net	-21.5	-38.7	-27.9	-21.0	-12.8	-7.2	-2.7	-0.9
Change in Reserve Assets, net	-9.2	-15.0	0.0	0.0	0.0	0.0	0.0	0.0
Errors and Omissions	**6.9**	**3.3**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Memorandum Items:								
Gross reserves (eop) 1/								
In billions of U.S. dollars	365.0	374.0	374.0	374.0	374.0	374.0	374.0	374.0
Net international reserves (eop)								
In billions of U.S. dollars	365.0	374.0	374.0	374.0	374.0	374.0	374.0	374.0
In percent of short-term debt (residual maturity)	265.5	271.5	270.8	270.4	270.4	272.4	275.1	278.5
Current account (in percent of GDP)	-1.3	-0.5	-1.2	-1.4	-1.5	-1.6	-1.7	-1.8
Trade balance (in percent of GDP)	2.5	3.1	2.8	2.5	2.4	2.4	2.4	2.4
Merchandise exports (in percent of GDP)	10.3	10.6	11.2	11.0	11.0	11.0	11.0	11.0
Merchandise imports (in percent of GDP)	7.8	7.5	8.4	8.5	8.6	8.6	8.6	8.6
Export volume (yoy change, in percent)	3.7	10.9	4.6	4.5	4.9	4.4	4.5	4.3
Import volume (yoy change, in percent)	-8.2	3.8	10.5	8.0	5.7	4.4	4.8	4.6
Export price index (yoy change, in percent)	-6.2	4.2	3.0	-0.7	-0.4	0.5	0.2	0.1
Import price index (yoy change, in percent)	-8.9	5.0	4.4	0.1	0.4	1.0	0.3	0.1
Terms of trade (yoy change, in percent)	3.0	-0.8	-1.3	-0.8	-0.8	-0.4	-0.1	0.0
Oil price (Brent blend; US$ per barrel)	42.8	52.8	62.3	58.2	55.6	54.1	53.6	53.6
Nominal exchange rate (R$/US$, annual average)	3.49	3.19	…	…	…	…	…	…
REER (annual average in percent; appreciation +)	6.8	9.6	…	…	…	…	…	…
GDP in billions of U.S. dollars	1,794	2,055	2,088	2,198	2,301	2,409	2,523	2,642

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

1/ Historical numbers include valuation changes.

Table 3. Brazil: Main Fiscal Indicators, 2016–23

(Percent of GDP, unless otherwise indicated)

	2016	2017	2018	2019	2020	2021	2022	2023
			Proj.					
FEDERAL GOVERNMENT 1/								
Net nonfinancial revenue	**17.4**	**17.6**	**17.3**	**17.0**	**17.2**	**17.7**	**17.8**	**17.8**
Revenue administered by SRF	13.1	12.7	12.5	12.7	12.9	13.0	13.1	13.1
PIT	2.6	2.6	2.6	2.6	2.7	2.7	2.7	2.7
CIT	4.0	3.7	3.7	3.7	3.8	3.8	3.8	3.8
Indirect taxes	5.4	5.9	5.8	5.8	5.9	5.9	5.9	5.9
Trade taxes	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Other	0.6	0.0	0.0	0.0	0.1	0.1	0.1	0.1
Social security contributions	5.7	5.7	5.7	5.8	5.8	5.9	5.9	5.9
Other revenue	2.2	2.6	2.5	2.0	2.0	2.4	2.4	2.4
Transfers to subnational governments (-)	-3.6	-3.5	-3.4	-3.5	-3.5	-3.6	-3.6	-3.6
Total primary expenditure 2/	**20.0**	**19.5**	**19.7**	**18.9**	**18.5**	**18.3**	**17.8**	**17.4**
Current expenditures	18.9	18.5	18.7	18.8	18.8	18.9	18.9	18.9
Personnel	4.1	4.3	4.3	4.2	4.1	4.0	3.9	3.8
Pension benefits	8.1	8.5	8.8	9.2	9.5	9.8	10.0	10.3
Other	6.7	5.7	5.6	5.4	5.3	5.1	5.0	4.9
Capital expenditures	1.0	1.0	1.0	0.9	0.9	0.9	0.9	0.8
Unallocated spending cuts	...	...	0.0	-0.8	-1.2	-1.5	-1.9	-2.4
of which reform of urban civil pensions (RGPS)	...	...	-0.1	-0.3	-0.4	-0.6	-0.7	-0.7
Fund surpluses and statistical discrepancy	0.0	0.1						
Primary balance	**-2.6**	**-1.8**	**-2.4**	**-1.9**	**-1.3**	**-0.6**	**0.0**	**0.4**
Borrowing requirement	7.6	7.1	7.2	7.0	6.8	6.5	5.9	5.6
STATES AND MUNICIPALITIES								
States								
Nonfinancial revenue	**10.6**	**10.6**	**10.5**	**10.5**	**10.4**	**10.3**	**10.1**	**9.9**
Own revenues	8.1	8.1	8.1	8.0	7.9	7.8	7.7	7.7
Indirect taxes	6.5	6.5	6.5	6.4	6.3	6.2	6.1	6.1
Other	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Transfers from the federal government	2.5	2.5	2.5	2.5	2.5	2.5	2.4	2.3
Total primary expenditure	**10.4**	**10.4**	**10.6**	**10.5**	**10.5**	**10.4**	**10.2**	**10.0**
Current expenditures	9.7	9.7	9.9	9.9	9.8	9.8	9.7	9.5
Personnel	4.9	4.9	4.9	4.9	4.9	4.8	4.7	4.6
Other	4.8	4.8	5.0	4.9	5.0	5.0	5.0	4.9
Capital expenditures and other	0.7	0.7	0.7	0.7	0.6	0.6	0.5	0.5
Primary balance of municipalities	**0.0**	**0.0**	**0.0**	**0.1**	**0.2**	**0.2**	**0.2**	**0.2**
Primary balance of states and municipalities	**0.1**	**0.1**	**0.0**	**0.0**	**0.2**	**0.2**	**0.2**	**0.2**
Borrowing requirement	1.3	0.7	1.0	1.0	1.0	1.0	1.0	1.1
PUBLIC ENTERPRISES 3/								
Federal enterprises								
Nonfinancial revenue	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Expenditures	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Personnel	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Other current expenditures	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Capital expenditures	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
State and municipal enterprises								
Primary balance	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Primary balance of state and municipal enterprises	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Borrowing requirement	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
NON FINANCIAL PUBLIC SECTOR (NFPS)								
Primary balance	**-2.5**	**-1.7**	**-2.4**	**-1.9**	**-1.1**	**-0.4**	**0.1**	**0.6**
Primary balance (Authorities' target)	-2.7	-2.6	-2.4	-2.2	-1.7	-0.7	...	...
Overall balance	-9.0	-7.9	-8.3	-8.1	-7.8	-7.6	-7.1	-6.8
Structural primary balance 4/	-1.2	-0.5	-1.5	-1.2	-0.8	-0.7	-0.2	0.3
Structural primary balance including policy lending	0.4	0.3	0.3	-1.3	-0.8	-0.7	-0.3	0.2
Memorandum items								
Spending ceiling (billions of reais) 5/	...	1,309	1,349	1,396	1,454	1,515	1,576	1,641
Loans to public financial institutions 6/	-1.6	-0.8	-1.9	0.0	0.0	0.0	0.0	0.0
NFPS net interest expenditure	6.5	6.2	5.8	6.2	6.7	7.1	7.2	7.3
Net public sector debt 7/	46.2	51.6	56.2	59.9	62.9	65.7	67.7	68.9
Gross NFPS debt	78.4	84.0	88.2	90.4	92.4	94.2	95.1	95.6
General government debt, Authorities' definition	69.9	...	...	...	...	...	...	...
Nominal GDP (billions of reais)	6,258	6,559	6,880	7,394	7,928	8,493	9,096	9,743

Sources: Central Bank of Brazil; Ministry of Finance; Ministry of Planning and the Budget; and Fund staff estimates.
1/ Comprises the central administration and the social security system.
2/ Total primary expenditure is the sum of current (on trend) plus capital (on trend) expenditures, minus unallocated cuts to meet the ceiling.
3/ Excluding Petrobras and Eletrobras.
4/ Structural primary balance adjusts for output gap and one-off measures.
5/ The ceiling excludes from total primary expenditures of the federal government in constitutional fund for Brasilia DF, extraordinary credit,; electoral lawsuits, complement to Fundeb, and equity increases in public companies.
6/ Policy lending to BNDES and others.
7/ Includes assets, which mainly comprise international reserves, financial assets of public enterprises, and assets of the federal labor fund (FAT).

Table 4. Brazil: Depository Corporations and Monetary Aggregates, 2014–17

(Billions of reais, end-of-period)

	2014	2015	2016	2017
	I. Central Bank			
Net foreign assets	**954.9**	**1,381.5**	**1,179.8**	**1,225.0**
Net international reserves	965.8	1,392.2	1,179.0	1,213.5
Other foreign assets (net)	-11.0	-10.8	0.9	11.6
Net domestic assets	**-406.4**	**-787.0**	**-537.3**	**-520.6**
Net claims on public sector	415.4	242.6	467.8	566.4
Net credit to other depository corporations	-764.3	-882.9	-1,003.5	-1,011.0
Other items (net)	57.5	146.8	1.7	76.0
Base money	**548.5**	**594.4**	**642.5**	**704.4**
Currency issued	220.9	225.5	232.1	250.4
Liabilities to other depository corporations	325.7	368.4	409.2	453.7
Reserve deposits	42.7	29.8	38.1	46.4
Liabilities to other sectors	1.9	0.6	1.2	0.4
	II. Depository Corporations 1/			
Net foreign assets	**730.7**	**1,089.3**	**968.2**	**971.6**
Net international reserves	965.8	1,392.2	1,179.0	1,213.5
Other foreign assets (net)	-235.2	-302.9	-210.8	-241.9
Net domestic assets	**3,666.1**	**3,733.8**	**4,452.5**	**4,700.8**
Net claims on public sector	1,488.8	1,628.1	2,310.1	2,823.1
Credit to other financial corporations	496.1	526.0	526.7	336.6
Credit to private sector	3,815.8	4,007.0	3,897.6	4,665.5
Of which: loans to private sector	2,807.8	2,909.0	2,824.4	2,824.8
Other items (net)	2,311.7	2,685.4	2,515.7	3,345.4
Capital	857.9	855.3	761.9	888.6
Other liabilities excluded from broad money	1,453.9	1,830.2	1,753.8	2,456.8
Broad money (M2) 2/	**4,396.7**	**4,823.2**	**5,420.6**	**5,672.4**
Currency in circulation	178.3	185.3	192.0	203.9
Demand deposits	183.9	160.9	169.8	178.1
Quasi-money liabilities	4,034.6	4,477.0	5,058.9	5,290.4
	(Percent of GDP)			
Base money	9.5	9.9	10.3	10.7
Broad money (M2)	76.1	80.4	86.6	86.5
M3 3/	74.7	79.4	84.4	...
M4 4/	86.4	92.6	98.2	...
Financial sector credit to the private sector	66.0	66.8	62.3	71.1
Of which: bank loans to private sector	48.6	48.5	45.1	43.1
Memorandum item:				
GDP (in billions of reais)	5,779	5,996	6,258	6,559

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.

3/ Authorities' definition. M3 comprises M2 plus shares in financial investment funds and the net position of the securities used in their purchase agreements transactions with money holding sectors.

4/ Authorities' definition. M4 comprises M3 plus federal, state, and municipal liquid securities held by the public.

Table 5. Brazil: Medium-Term Macroeconomic Framework, 2016–23

	2016	2017	2018	2019	2020	2021	2022	2023
			Proj.					
MACROECONOMIC FRAMEWORK	(Percent of GDP, unless otherwise specified)							
GDP growth at constant prices (percent)	-3.5	1.0	1.8	2.5	2.3	2.2	2.2	2.2
Consumer prices (IPCA, end of period, percent)	6.3	2.9	3.5	4.1	4.0	4.0	4.0	4.0
Gross domestic investment	15.4	15.5	16.2	16.9	17.8	18.7	19.3	19.5
Private sector	13.6	13.8	14.5	15.3	16.3	17.2	17.9	18.2
Public sector	1.8	1.7	1.7	1.6	1.5	1.4	1.4	1.3
Gross domestic savings	14.1	15.0	14.9	15.4	16.2	16.9	17.4	17.6
Private sector	21.2	21.0	21.6	21.5	22.1	22.5	22.7	22.7
Public sector	-7.1	-6.0	-6.7	-6.1	-5.9	-5.6	-5.4	-5.1
External current account balance	-1.3	-0.5	-1.2	-1.4	-1.5	-1.6	-1.7	-1.8
Central government primary balance	-2.5	-1.7	-2.4	-1.8	-1.1	-0.4	0.2	0.7
Consolidated non-financial public sector								
Primary balance	-2.5	-1.7	-2.4	-1.8	-1.1	-0.4	0.2	0.7
Overall balance	-9.3	-9.7	-9.1	-8.7	-7.4	-7.0	-6.1	-5.6
Public sector net debt 1/	46.2	51.6	56.2	59.9	62.9	65.7	67.7	68.9
General government gross debt, Authorities' definition	70.0	74.0	…	…	…	…	…	…
NFPS gross debt 2/	78.4	84.0	88.2	90.4	92.4	94.2	95.1	95.6
EXTERNAL DEBT 3/ 4/	(Billions of U.S. dollars)							
Total external debt	**666.5**	**668.3**	**669.2**	**668.7**	**664.3**	**657.8**	**649.7**	**640.6**
Medium- and long-term	617.9	620.7	622.2	622.1	618.0	611.8	604.1	595.4
Nonfinancial public sector	183.3	179.3	177.0	175.7	174.5	173.2	171.9	170.5
Public sector banks	65.3	63.9	63.0	62.6	62.1	61.7	61.2	60.7
Private sector	417.9	425.1	429.2	430.4	427.7	422.9	416.6	409.4
Short-term	48.6	47.6	46.9	46.6	46.3	45.9	45.6	45.2
Medium- and long-term external debt service	**115.1**	**106.5**	**107.9**	**108.9**	**109.5**	**109.7**	**109.0**	**107.9**
Amortization	96.2	88.9	90.2	91.2	91.7	92.0	91.4	90.4
Interest	18.9	17.7	17.7	17.8	17.8	17.8	17.7	17.5
	(Percent of GDP)							
Total external debt	**37.2**	**32.5**	**32.0**	**30.4**	**28.9**	**27.3**	**25.7**	**24.2**
Medium- and long-term	34.4	30.2	29.8	28.3	26.9	25.4	23.9	22.5
Nonfinancial public sector	10.2	8.7	8.5	8.0	7.6	7.2	6.8	6.5
Public sector banks	3.6	3.1	3.0	2.8	2.7	2.6	2.4	2.3
Private sector	23.3	20.7	20.5	19.6	18.6	17.6	16.5	15.5
Short-term	2.7	2.3	2.2	2.1	2.0	1.9	1.8	1.7
	(Percent of gross international reserves)							
Medium- and long-term external debt service	**31.5**	**28.5**	**28.9**	**29.1**	**29.3**	**29.3**	**29.2**	**28.8**
Amortization	26.3	23.8	24.1	24.4	24.5	24.6	24.4	24.2
Interest	5.2	4.7	4.7	4.7	4.8	4.8	4.7	4.7
Short-term debt	13.3	12.7	12.6	12.5	12.4	12.3	12.2	12.1
MEMORANDUM ITEMS:								
Gross reserves (eop) 4/								
In billions of U.S. dollars	365.0	374.0	374.0	374.0	374.0	374.0	374.0	374.0
In percent of external short-term debt (maturity basis)	750.9	786.4	796.7	802.5	808.4	814.4	820.6	827.0
In months of prospective GNFS imports	19.8	17.6	16.2	15.3	14.5	13.8	13.2	…
Short-term debt in percent of total external debt	7.3	7.1	7.0	7.0	7.0	7.0	7.0	7.1
Intercompany debt (in billions of U.S. dollars)	229.9	241.1	247.5	250.1	248.7	245.3	240.3	234.4
In percent of GDP	12.8	11.7	11.9	11.4	10.8	10.2	9.5	8.9
GDP (billion US$)	1,794	2,055	2,088	2,198	2,301	2,409	2,523	2,642

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/ Gross non financial public sector debt consolidates debt of public enterprises with that of general government. 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 Indicators, 2014–18
(Billions of U.S. dollars, unless otherwise indicated)

	2014	2015	2016	2017	Proj. 2018
Trade					
Exports of GNFS (12-month percent change, US$)	-5.6	-15.2	-2.7	15.6	7.8
Imports of GNFS (12-month percent change, US$)	-2.1	-23.7	-16.4	9.0	15.4
Terms of trade (12-month percent change)	-3.4	-11.0	3.0	-0.8	-1.3
Current account					
Current account	-104.2	-59.4	-23.5	-9.8	-24.4
In percent of GDP	-4.2	-3.3	-1.3	-0.5	-1.2
Capital and financial account	100.8	55.6	16.7	6.5	24.4
Capital Account	0.2	0.5	0.3	0.4	0.4
Financial Account	100.6	55.1	16.4	6.1	24.0
Portfolio investment (net)	38.4	22.2	-19.2	-13.4	-7.4
Foreign direct investment (net)	71.1	61.2	65.4	64.1	60.0
Of which: intercompany loans (net)	38.3	18.9	24.4	11.1	6.3
Short-term external liabilities of commercial banks	49.4	42.7	40.6	39.8	39.2
External debt					
Total external debt 1/	712.7	665.1	666.5	668.3	669.2
In percent of gross reserves	196.0	186.6	182.6	178.7	178.9
Amortization of external MLT debt (in percent of GNFS exports)	31.6	51.1	52.1	40.9	38.5
External interest payments (in percent of GNFS exports)	7.8	9.8	10.3	8.1	7.6
Reserves					
Gross reserves	363.6	356.5	365.0	374.0	374.0
In months of prospective GNFS imports	17.9	21.1	19.8	17.6	...
In percent of broad money (M2)	22.0	28.9	21.9	22.8	23.1
In percent of short-term external debt (maturity basis)	234.7	242.0	265.5	272.7	...
In percent of IMF metric	155.4	192.1	165.0	160.6	155.9
Exchange rate					
Exchange rate (R$/US$, period average)	2.35	3.33	3.49	3.19	3.49
REER (annual average in percent; appreciation +)	-0.9	-15.7	6.8	9.6	...

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

1/ Includes intercompany loans.

Table 7. Brazil: Financial Soundness Indicators, 2012–17

(Percent, unless otherwise indicated)

	2012	2013	2014	2015	2016	2017
	Total banking system					
Capital Adequacy						
Regulatory capital to risk-weighted assets	16.4	16.1	16.7	16.4	17.1	18.1
Regulatory Tier 1 capital to risk-weighted assets	11.9	12.6	13.0	12.7	13.7	14.5
Capital to assets	10.1	9.3	9.0	8.4	9.3	10.0
Gross asset position in financial derivatives to capital	7.8	9.6	11.8	29.6	22.8	19.5
Gross liability position in financial derivatives to capital	9.3	10.9	13.9	35.6	21.8	19.1
Asset Quality						
Nonperforming loans to total gross loans	3.4	2.9	2.9	3.3	3.9	3.6
Provisions to Nonperforming loans	148.7	161.2	155.7	154.4	152.2	163.1
Earnings and Profitability						
Return on assets	1.4	1.4	1.3	1.5	1.1	1.5
Return on equity	12.9	13.0	13.1	15.5	11.3	13.9
Liquidity						
Liquidity assets to short-term liabilities	191.8	158.0	202.2	190.0	236.3	237.5
Liquidity assets to total assets	14.9	10.9	12.1	11.6	14.1	14.6
Net open position in foreign exchange to capital	-0.6	0.4	0.3	0.5	0.9	0.7
External funding to total funding	9.3	8.5	9.4	13.0	10.3	10.3
	Public banks					
Capital Adequacy						
Regulatory capital to risk-weighted assets	14.5	14.9	16.2	15.5	16.3	18.5
Regulatory Tier 1 capital to risk-weighted assets	9.4	11.3	11.8	11.0	11.5	12.7
Capital to assets	6.3	5.6	5.1	4.7	4.9	5.7
Gross asset position in financial derivatives to capital	1.0	1.7	3.1	8.2	2.6	1.6
Gross liability position in financial derivatives to capital	2.1	3.0	2.5	3.2	3.0	1.3
Asset Quality						
Nonperforming loans to total gross loans	1.8	1.9	2.0	2.5	3.3	3.1
Provisions to Nonperforming loans	203.3	181.1	164.0	157.8	146.6	158.6
Earnings and Profitability						
Return on assets	1.5	1.5	1.1	1.0	0.6	1.1
Return on equity	18.7	18.1	13.8	14.5	9.0	15.9
Liquidity						
Liquidity assets to short-term liabilities	282.1	214.1	209.6	196.0	282.0	308.7
Liquidity assets to total assets	14.2	10.5	10.2	9.7	13.2	14.8
Net open position in foreign exchange to capital	0.0	1.4	2.2	-1.2	4.4	2.2
External funding to total funding	4.4	4.3	4.6	5.6	6.6	5.3
	Private banks (domestic and foreign)					
Capital Adequacy						
Regulatory capital to risk-weighted assets	17.4	16.8	16.9	16.8	17.6	17.9
Regulatory Tier 1 capital to risk-weighted assets	13.2	13.3	13.7	13.6	14.9	15.4
Capital to assets	12.5	11.8	11.6	10.9	12.4	13.1
Gross asset position in financial derivatives to capital	9.9	12.2	14.4	35.8	28.6	25.0
Gross liability position in financial derivatives to capital	11.6	13.5	17.3	44.9	27.2	24.5
Asset Quality						
Nonperforming loans to total gross loans	4.9	3.8	3.7	4.2	4.6	4.1
Provisions to Nonperforming loans	131.6	151.7	151.0	152.2	156.5	166.5
Earnings and Profitability						
Return on assets	1.3	1.3	1.5	1.8	1.5	1.7
Return on equity	10.8	10.8	12.8	15.9	12.2	13.1
Liquidity						
Liquidity assets to short-term liabilities	162.4	135.3	198.5	187.2	214.3	152.1
Liquidity assets to total assets	15.4	11.2	13.3	12.9	14.8	14.4
Net open position in foreign exchange to capital	-0.8	0.1	-0.3	1.0	-0.1	0.2
External funding to total funding	12.5	11.8	13.4	14.4	15.4	14.5

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

Table 8. Brazil: External Debt Sustainability Framework, 2013–23

(Percent of GDP, unless otherwise indicated)

						Projection						Debt-stabilizing non-interest current account 6/
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
Baseline: External debt	25.1	29.0	36.9	37.2	32.5	32.0	30.4	28.9	27.3	25.7	24.2	**-3.4**
Change in external debt	2.0	3.9	7.9	0.2	-4.6	-0.5	-1.6	-1.6	-1.6	-1.6	-1.5	
Identified external debt-creating flows (4+8+9)	1.4	2.1	8.4	-0.3	-2.7	-2.3	-2.1	-1.8	-1.6	-1.5	-1.5	
Current account deficit, excluding interest payments	2.3	3.5	2.3	0.3	-0.4	0.3	0.6	0.8	0.9	1.0	1.1	
Deficit in balance of goods and services	1.9	2.2	1.1	-0.8	-1.5	-0.7	-0.2	0.0	0.0	0.1	0.1	
Exports	11.3	10.8	12.4	12.1	12.2	13.0	12.8	12.8	12.8	12.8	12.8	
Imports	13.2	13.0	13.5	11.3	10.8	12.2	12.6	12.7	12.8	12.9	12.9	
Net non-debt creating capital inflows (negative)	-1.1	-1.8	-2.9	-2.9	-2.9	-2.9	-2.8	-2.7	-2.7	-2.7	-2.7	
Automatic debt dynamics 1/	0.2	0.4	9.1	2.3	0.5	0.3	0.0	0.1	0.1	0.1	0.1	
Contribution from nominal interest rate	0.7	0.7	1.0	1.1	0.9	0.9	0.8	0.8	0.7	0.7	0.7	
Contribution from real GDP growth	-0.7	-0.1	1.4	1.3	-0.3	-0.6	-0.8	-0.7	-0.6	-0.6	-0.5	
Contribution from price and exchange rate changes 2/	0.2	-0.2	6.6	...	...	...	...	...	...	...	...	
Residual, incl. change in gross foreign assets (2-3) 3/	0.5	1.8	-0.5	0.5	-1.9	1.8	0.5	0.3	0.1	-0.1	0.0	
External debt-to-exports ratio (in percent)	222.3	269.9	297.1	306.1	265.5	246.7	237.7	226.0	213.1	201.1	189.9	
Gross external financing need (in billions of US dollars) 4/	167.2	207.7	214.3	170.8	147.2	162.1	168.6	173.4	177.6	181.1	182.8	
in percent of GDP	6.8	8.5	11.9	9.5	7.2	8.2	8.3	8.2	8.0	7.7	7.4	
Scenario with key variables at their historical averages 5/				37.2	32.5	28.1	24.8	22.2	19.7	17.2	15.0	**-4.3**
Key Macroeconomic Assumptions Underlying Baseline												
Real GDP growth (in percent)	3.0	0.5	-3.5	-3.5	1.0	1.8	2.5	2.3	2.2	2.2	2.2	
GDP deflator in US dollars (change in percent)	-2.6	-1.1	-24.0	3.2	13.5	-5.9	0.2	2.7	2.8	2.8	2.8	
Nominal external interest rate (in percent)	3.1	2.8	2.6	2.8	2.7	2.7	2.7	2.7	2.7	2.7	2.7	
Growth of exports (US dollar terms, in percent)	-0.5	-5.6	-15.2	-2.7	15.6	7.8	3.7	4.5	5.0	4.7	4.4	
Growth of imports (US dollar terms, in percent)	7.1	-2.1	-23.7	-16.4	9.0	15.4	8.1	6.0	5.4	5.1	4.7	
Current account balance, excluding interest payments	-2.3	-3.5	-2.3	-0.3	0.4	-0.3	-0.6	-0.8	-0.9	-1.0	-1.1	
Net non-debt creating capital inflows	1.1	1.8	2.9	2.9	2.9	2.9	2.8	2.7	2.7	2.7	2.7	
B. Bound Tests												
B1. Nominal interest rate is at historical average plus one standard deviation						32.3	30.8	29.5	28.1	26.7	25.3	**-3.2**
B2. Real GDP growth is at historical average minus one standard deviations						32.4	31.1	29.9	28.5	27.1	25.7	**-3.3**
B3. Non-interest current account is at historical average minus one standard deviations						32.7	31.7	30.7	29.7	28.7	27.8	**-3.4**
B4. Combination of B1-B3 using 1/2 standard deviation shocks						32.6	31.4	30.3	29.2	28.0	26.8	**-3.4**
B5. One time 30 percent real depreciation in 2018						41.5	39.1	37.0	34.8	32.7	30.6	**-4.8**

1/ Derived as [r - g - r(1+g) + ea(1+r)]/(1+g+r+gr) times previous period debt stock, with r = nominal effective interest rate on external debt; r = change in domestic GDP deflator in US dollar terms, g = real GDP growth rate, e = nominal appreciation (increase in dollar value of domestic currency), and a = share of domestic-currency denominated debt in total external debt.

2/ The contribution from price and exchange rate changes is defined as [-r(1+g) + ea(1+r)]/(1+g+r+gr) times previous period debt stock. r increases with an appreciating domestic currency (e > 0) and rising inflation (based on GDP deflator).

3/ For projection, line includes the impact of price and exchange rate changes.

4/ Defined as current account deficit, plus amortization on medium- and long-term debt, plus short-term debt at end of previous period.

5/ The key variables include real GDP growth; nominal interest rate; dollar deflator growth; and both non-interest current account and non-debt inflows in percent of GDP.

6/ Long-run, constant balance that stabilizes the debt ratio assuming that key variables (real GDP growth, nominal interest rate, dollar deflator growth, and non-debt inflows in percent of GDP) remain at their levels of the last projection year.

Appendix I. Risk Assessment Matrix

Risk Assessment Matrix[1]

Nature/Source of Threat	Likelihood	Expected Impact on Economy	Policy Responses
		Domestic Risks	
Failing to pass reforms necessary to maintain the constitutional expenditure ceiling.	**H**	**H.** Fiscal balances would continue to disappoint and fail to stabilize debt. Further loss of confidence would lower investment and growth. Market adverse reaction would include currency depreciation and increased sovereign yields, and inflationary pressures would resume. Corporates could suffer from capital flow reversals, exchange rate depreciation, and higher funding costs. The strains would worsen if banks' soundness deteriorated owing to an increase in NPLs and funding costs and losses on government bonds' holdings.	Deploy alternative fiscal measures to shore up credibility and ensure that debt stabilizes. The monetary policy stance may have to be tightened depending on the effect on inflation expectations. Strengthen efforts to boost competitiveness and productivity.
Political uncertainty surrounding the upcoming elections or broadening of the corruption scandal.	**H**	**M.** Uncertainty would cause market volatility and hamper the incipient investment recovery, confidence, and growth. Higher funding costs and losses on the portfolio would trigger capital shortfalls, tightening of financial conditions, and contraction of credit.	Ensure macroeconomic policy resilience. This involves: (1) Strengthening fiscal consolidation efforts to achieve medium-term debt sustainability; (2) Monetary policy should remain focused on keeping inflation expectations anchored; (3) Exchange rate intervention only under disorderly market conditions; and (4) Enact structural reforms to combat corruption and boost competitiveness and growth.
		External Risks	
Tighter global financial conditions. Against the backdrop of continued monetary policy normalization and increasingly stretched valuations across asset classes, an abrupt change in global risk appetite (e.g., due to higher-than-expected inflation in the U.S) could lead to sudden, sharp increases in interest rates and associated tightening of financial conditions. Higher debt service and refinancing risks could stress leveraged firms, households, and vulnerable sovereigns, including through capital account pressures in some cases.	**H**	**M**. Increasing Brazil's risk premia, pressures on the *real* and reversal of capital flows. Increasing yields in domestic bond markets and higher funding costs for corporates and banks. In particular, corporates lacking FX hedging could be exposed. Exchange rate depreciation could pass through to inflation threathening to de-anchor inflation expectations.	Monetary policy may have to be tightened to counter the second round effects from exchange rate appreciation. Recourse to FX intervention only in disorderly market conditions. Provide FX liquidity and support individual banks if dollar shortages appear. May also need to tighten fiscal policy to further strengthen policy credibility and avoid sell-offs of Brazilian domestic bonds. Capital flow management measures (CFMs) on outflows may be appropriate in crisis circumstances. If implemented, CFMs should be part of a broad policy package designed to address the fundamental causes of the crisis, and should not substitute for policy adjustment.
Retreat from cross-border integration. Fraying consensus about the benefits of globalization leads to protectionism and economic isolationism, resulting in reduced global and regional policy and regulatory collaboration with negative consequences for trade, capital and labor flows, sentiment, and growth.	**M**	**M**. Worsening current account deficit and weaker growth. Some corporates could see their profits decline and unemployment in some sectors could increase.	No room for fiscal policy stimulus to smooth the shock, but further monetary easing could be appropriate if the shock is broad-based. Press on with structural reforms to open up the economy and boost potential growth. Negotiate trade agreements both at regional and global level.
Significant China slowdown and its spillovers: While ongoing efforts by the Chinese authorities to "de-risk" the financial system are welcome, too fast an adjustment and improper sequencing of actions may adversely affect near-term growth (low likelihood). Over the medium term, overly ambitious growth targets, including by over reliance on credit stimulus and investment, lead to unsustainable policies, reducing fiscal space, further increasing financial imbalances. A sharp adjustment would weaken domestic demand, with adverse international spillovers, including a pullback in capital flows to EMs (medium likelihood).	**L/M**	**M.** The spillover impact would reverberate through the trade and commodity channels, but also through financial markets contagion. Worsening current account deficit and weaker growth. Profits of highly indebted corporates could decline.	Use the exchange rate as first shock absorbers. No room for fiscal policy stimulus to smooth the shock, but further monetary easing may be appropriate. Press on with structural reforms to boost potential growth.

[1] The Risk Assessment Matrix (RAM) shows events that could materially alter the baseline path (the scenario most likely to materialize in the view of IMF staff). The relative likelihood is the staff's subjective assessment of the risks surrounding the baseline ("low" is meant to indicate a probability below 10 percent, "medium" a probability between 10 and 30 percent, and "high" a probability between 30 and 50 percent). The RAM reflects staff views on the source of risks and overall level of concern as of the time of discussions with the authorities. Non-mutually exclusive risks may interact and materialize jointly. "Short term" and "medium term" are meant to indicate that the risk could materialize within 1 year and 3 years, respectively.

Appendix II. External Sector Assessment 2017

	Brazil: External Sector Assessment 2017
Foreign asset and liability position and trajectory	**Background**. Brazil's NIIP was -34 percent of GDP at end-2017, slightly weaker than the 2011-16 average (around -30 percent of GDP), mainly due to valuation effects. Over the medium term, the NIIP is projected to strengthen gradually to around -30 percent of GDP, as GDP growth and valuation effects are expected to offset current account deficits (around 1-2 percent). While FDI accounts for about half of all liabilities, the rise in external debt since the global financial crisis (to about 33 percent of GDP and 265 percent of exports) is a source of risk. **Assessment**. Brazil's NIIP is comparable to that of its peers. Short-term gross external financing needs are moderate at 7-8 percent of GDP annually. The CA deficit required to stabilize the NIIP at -32 percent is 1.1 percent of GDP.
Current account	**Background**. The CA deficit narrowed to 0.5 percent of GDP in 2017, owing to the weak domestic demand, especially investment, and strong exports. The CA deficit is expected to widen in 2018 and rise gradually to about 2 percent of GDP in the medium term as private demand recovers, partially offset by the envisaged fiscal consolidation. However, a decline in ToT and a sharp slowdown in trading partner growth remain a downside risk. 1/ **Assessment**. In 2017, the cyclically-adjusted CA was -1.8 percent of GDP, reflecting a still large and negative output gap. EBA estimates suggest a CA norm in 2017 of -2.5 percent of GDP. However, taking into consideration the vulnerabilities associated with negative NIIP position and estimates from the EBA ES approach, staff assess a CA norm between -1.5 and -2.5 percent of GDP. Thus, the CA is assessed to have been broadly consistent with fundamentals and desirable policies.
CA Assessment 2017	Actual CA: -0.5 | Cycl. Adj. CA: -1.8 | EBA CA Norm: -2.5 | EBA CA Gap: 0.7 | Staff Adj.: 0.5 | Staff CA Gap: 0.2
Real exchange rate	**Background**. After the sharp depreciation in 2015-16, the REER (INS) appreciated by about 10 percent during 2017, reflecting improvements in ToT and a positive market response to the new government's reform agenda. Estimates through April 2018 show that the REER has depreciated by 8.6 percent relative to the 2017 average. **Assessment**. EBA REER index and level methodologies indicate a 9 to 23 percent overvaluation for 2017. Consistent with the CA gap, staff assess the REER to be broadly in line with fundamentals and desirable policies. The estimated REER gap is between -7 and 3 percent.
Capital and financial accounts: flows and policy measures	**Background**. Brazil continues to attract sizable capital flows. Net FDI continued to fully finance the CA deficit since 2015 (averaging 3.4 percent of GDP during 2015-17, while CA deficits averaged 1.7 percent.) Despite political uncertainty, net outflows of portfolio debt liabilities declined in 2017, after recording substantial outflows in 2016 (from 1.7 percent of GDP to 0.3 percent of GDP). Interest differentials, still large despite recent monetary easing, the big domestic market, and large external buffers should help to attract inflows. Still, rigidities in budget, banking sector, and labor and product markets, if not properly addressed, may weaken investors' interest. **Assessment**. Flows have a favorable risk profile, but tighter global financial conditions, weak implementation of reforms, and political uncertainty remain downside risks to capital flows.
FX intervention and reserves level	**Background**. Brazil has a floating exchange rate. Its gross reserves remained broadly constant in 2017, at $374 billion at end-2017, equivalent to 18.2 percent of GDP and around 160 percent of the IMF's composite reserve adequacy metric. **Assessment**. The flexible exchange rate has been an important shock absorber. Reserves are adequate relative to various criteria including the IMF's reserve adequacy metric. The authorities should retain strong buffers, with intervention limited to addressing disorderly market conditions.
Technical Background Notes	1/ Brazil currently features a near zero oil balance; in the short run, oil prices are neutral with respect to the CA. Also, the development of Brazil's off-shore oil potential has been drastically cut back and is no longer projected to contribute significantly to export growth.

Overall Assessment

Overall Assessment:

Brazil's external position in 2017 was broadly consistent with medium-term fundamentals and desirable policies. The REER appreciated further in 2017 and returned to the level close to 2014 (before large external adjustment). The current account deficit will likely deteriorate in 2018 reflecting an improving cyclical position, including investment.

Potential policy responses:

Efforts to raise national savings are needed to provide room for a sustainable expansion in investment. Fiscal consolidation, including from the new federal spending cap and social security reform, should contribute to boosting net public savings. Structural efforts remain necessary to improve overall competitiveness.

Appendix III. Implementation of Past Advice

IMF Recommendations	*Rationale*	*Implementation status*
Monetary and Financial Sector Policies		
Specify a medium-term target, strengthen Central Bank's independence, and publish and discus fully endogenous inflation and policy rate projections.	Strengthen the IT framework.	No progress.
Maintain an accommodative policy stance to mitigate risks of undershooting the central target for too long.	Support return of inflation to target.	The monetary stance has been supportive.
Enhance the central bank's ability to provide emergency liquidity assistance and implement the new resolution regime for banks.	Strengthen safety net and bolster banking sector resilience.	The new resolution law for the banking sector in under review.
Give mandate for macro-prudential oversight to a committee comprising all financial regulators, the deposit Guarantee Fund, and the Ministry.	Strengthen transparency and accountability and improve risk management.	The new financial stability law is under review.
The Central Bank should promote the reduction of bank spreads, including by simplifying reserve requirements, implementing a positive credit bureau, and establishing a centralized market for receivables.	Improve banking sector intermediation.	Reserve requirements were reduced and draft law on positive credit registry in Congress.
Review credit earmarking rules and other distortions.	Ensure that national savings go to their most productive uses.	Reform of TJLP approved and BNDES set to repay a larger part of the credit received from the Treasury.
Strengthen private insolvency frameworks, with the aim of expediting the bankruptcy process and reducing default losses incurred by creditors.	Minimize risks from private sector leverage and facilitate the financing of capital investment.	The new bankruptcy law for non-financial companies is in Congress
Fiscal Policy		
Frontload the fiscal adjustment as growth firms up.	Faster fiscal consolidation.	The primary deficit was lowered significantly in 2017, but it's expected to widen in the 2018 budget.
Reform social security.	Ensure fiscal sustainability and fairness.	Pension reform has been postponed.
Address revenue and expenditure rigidities.	Facilitate budget management and fiscal consolidation.	No progress.
Revise allowances for civil servants and avoid wage increases for civil servants above inflation.	Ensure fiscal sustainability.	Wage increases for provided in both 2017 and 2018 in line with the 2015 negotiation.
Reform social security and control wage bill growth in states.	Ensure subnational fiscal sustainability.	Some states have increased social security contributions.
Severe the automatic link between benefit payments and the minimum wage and/or limit minimum wage increases to cost of living adjustments.	Ensure fiscal sustainability.	No progress.

IMF Recommendations	*Rationale*	*Implementation status*
External Sector Policy		
Use foreign exchange intervention for disorderly market conditions.	Use exchange rate as a first buffer against shocks.	Interventions were limited to episodes of market distress.
Preserve reserve buffers.	Maintain resilience to external shocks.	Reserve buffers were preserved.
Structural Policies		
Simplify the federal tax system, beginning with the PIS/COFINS and continue to work toward harmonizing federal and state tax regimes.	Tax efficiency and business burden.	A tax reform proposal under discussion envisages changes to PIS.
Reduce tariffs and nontariff-barriers, and pursue free-trade negotiations outside Mercosur.	Open the economy, increase competition and efficiency.	Reformed domestic content rules for the oil and gas sectors; trade facilitation underway.
Pursue labor reforms.	Facilitate productive employment and lower informality.	Labor law came into effect.
Adopt a rolling medium-term fiscal framework.	Strengthen budgetary planning and execution.	No medium-term framework in place, but greater transparency about medium-term indicative targets.
Implementing common accounting standards in states.	Increase fiscal transparency in states.	In progress.
Make the public investment program more attractive to investors while maintaining high standards of governance and program design.	Support private sector participation in infrastructure provision and boost growth.	In progress.
Make data on public procurement open by default, implement the recent legislation on conflict of interest, and strengthen whistleblowing mechanisms. Eliminate regulations that provide opportunities for bribes. Improve access to and sharing of banking and fiscal information, and prevent the abuse of appeal provisions and statutes of limitations in legal proceedings, in line with Supreme Court jurisprudence. Strengthen provisional measures and confiscation, effectively pursue a larger number of significant corruption, money laundering and illicit enrichment cases, and enhance the AML/CFT supervision of banks' obligations regarding politically exposed persons.	Strengthen the AML framework.	The definition of politically-exposed-persons has been updated. The number of corruption and anti-money laundering cases related to "lava jato" continues to grow. But, a number of anti-corruption measures are still pending approval in Parliament and measures to increase access to and sharing of banking and tax information by and with competent authorities have not yet materialized.

Appendix IV. FSAP Key Recommendations

Key Recommendations	Time
Microprudential and macroprudential institutional arrangements	
Establish a multi-agency committee, with explicit mandate for financial stability and macroprudential oversight and the power to issue policy recommendations on a comply-or-explain basis.	ST (Short Term
Strengthen the crisis management institutional arrangements for inter-agency cooperation and exchange of information, including for contingency planning.	MT (Medium Term)
Strengthen legal protection of all supervisors (BCB, SUSEP) by clear rules, including fixed term, condition of dismissal, public disclosure of reasons for dismissal and qualification criteria for appointments. Strengthen the independence to the BCB.	ST
Increase resources of CVM and SUSEP.	ST
Systemic risks	
Use Pillar 2 capital requirements to handle bank-specific risk profiles to boost their resilience as needed and to mitigate concentration risk.	ST
Financial sector oversight	
Upgrade 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
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
Implement (BCB, ANS and SUSEP) consistent group-wide supervision of insurance groups and conglomerates with joint rule-making, implementation, and on-site inspections and granular data sharing.	MT
Crisis management and bank resolution, safety nets	
Revise the draft resolution law in line with FSAP team's recommendations and promptly enact it.	ST
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
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
Financial integrity	
Complete the national AML/CFT risk assessment and introduce a risk-based approach specific to AML/CFT supervision.	ST
Financial intermediation efficiency	
Foster competition through client mobility and financial product cost transparency and comparability.	ST
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
Focus Caixa on core activities, improve governance, and invite strategic investor.	ST

Appendix V. Fiscal Rules in Brazil

Brazil has numerous rules and guidelines that apply to various levels of government and comprise numerous budget lines including revenues, expenditures, transfers and borrowing. Only a few of them can, however, be considered as actual fiscal anchors, which affect the level of deficit and debt directly and trigger sanctions for non-compliance. The Fiscal Responsibility Law (FRL), adopted in 2000, sets a general framework for budgetary planning, execution, and reporting for the three levels of government. Being a complementary law (almost constitutional level), it requires a qualified majority (2/3) for approval and modification, and it is binding for all entities of the public sector at all levels of government. It introduces the use of fiscal targets (primary balance) as well as spending and debt limits at different government levels.[1]

Brazil has also a golden rule and expenditure ceiling, the latter applying only to Federal Government. None of the rules has provisions to absorb automatic stabilizers though the FRL includes flexibility clauses which are triggered by a significant deceleration in economic activity or a natural disaster but can only be invoked with Congressional approval.

A. The Federal Government Expenditure Ceiling

1. The Constitutional Amendment No. 95, adopted on December 15, 2016 establishes an expenditure rule that is to remain in place for the following twenty years. With some exclusions, the rule sets ceilings on federal government real primary expenditure as of 2016; nominal expenditure can grow thereafter in line with inflation which is calculated as the 12-month inflation rate observed in the period ending in June of the year prior to the budget year. The ceiling is applied to actual payments (execution) including *restos a pagar* (RAP), or unpaid commitments carried over to the following year. The rule applies to all branches of federal government—the Executive branch, the Legislature, and the Judicial branch—but each branch has its own ceiling within the overall expenditure ceiling. Several exclusions apply:

- the ceiling excludes extraordinary credits used for urgent and unforeseen events, such as natural disasters, war or civil unrest;
- some specific spending categories, namely constitutional transfers (mainly to states and municipalities) as well as bailouts of non-financial state-owned enterprises are exempt from the cap;

[1] The law also places a series of restrictions on relations between public agencies and levels of government to prevent bail-outs, monetization of deficits, and misuses of public financial institutions. It prohibits any new credit arrangement between entities of the public sector, as well as the direct deficit financing of any kind by the Central Bank.

- spending on education and health, previously earmarked as a minimum percentage of revenue (respectively 18 percent of net tax revenue and 15 percent of net current revenue) is protected and from 2018 on the rule defines spending floors for education and health; expenditure for each sector should be superior to their respective shares in the 2017 total primary expenditure ceiling and additional funds can be allocated if they are within the overall expenditure ceiling;

- during the first three years of the application of the rule, the legislative and judiciary branches can surpass their respective expenditure ceilings for a maximum cumulative amount of 0.25 percent of the Executive branch's ceiling with the excess being offset through a corresponding decrease in the Executive branch's budget.

2. The expenditure ceiling sets safeguards against non-compliance:

- *Ex ante*, the rule requires any legislative proposal for new mandatory expenditure or new tax expenditure to be accompanied by an assessment of its fiscal impact. Congress can block and review any new legislative proposal for which there is suspicion that it may not be compatible with the rule.

- *Ex post*, the rule defines a wide range of automatic adjustments in case of non-compliance, including prohibiting mandatory spending above inflation (including the readjustment of the minimum wage), preventing the creation of new mandatory spending items, stopping salary increases and new hiring, and prohibiting measures that expand credit lines, programs or tax incentives.

At the initiative of the President of the Republic, the expenditure ceiling can be changed at the earliest after 10 years (in 2027) by complementary law, which requires an absolute majority in both the House and the Senate. The ceiling can be altered only once in each presidential term, and the scope of the modification is limited to the calculation of the spending growth component. The cap can be modified or abolished otherwise through a constitutional amendment which would require a three-fifths majority and two votes each in the House and the Senate.

B. The Golden Rule

3. Brazil's golden rule is based on Article 167 Art. III of the Constitution, which says that "Credit operations cannot exceed capital spending". Exemptions include supplementary or special credits (for natural disasters, for example), and these exceptions require approval of Congress with absolute majority. Compliance with the rule is checked annually, and the rule has always been met. Details are included in Annex 9 of the Budget Execution Summary Report (*Relatório Resumido de Execução Orçamentária* – RREO) issued at the end of each fiscal year.[2]

[2] There is also a stricter version of the golden Rule in the Fiscal Responsibility Law, FRL, which says that, already at the stage of the Budget Law (LOA), *programmed* credit operations may not exceed *budgeted* capital spending. However, this article has been suspended in a recent Supreme Court ruling.

4. The golden rule is aligned with the cash concept of federal government receipts and expenses as are recorded in the budget and, broadly speaking, obeys to the principle according to which new debt issuances cannot not exceed public investment spending. Credit operations comprise receipts from debt refinancing operations and from new debt issuances while capital spending includes expenses for investment (including financial investments) and debt refinancing operations. But subtleties in the interpretation of credit, investment and financial receipts make this rule exceptional. Financial receipts can include Central Bank profits, remuneration of the Treasury Single Account (TSA), debt repayments to Treasury by the BNDES, states and municipalities, and can substitute for new debt issuances. Thus, financial receipts can help compliance with the rule by providing financing other beyond new debt issuances.

5. How is the coverage interpreted? Treasury and Planning/SOF (Secretariat of the Federal Budget) diverge over the concept of investments: SOF believes investments by state-owned companies should be included as capital spending to assess compliance with the rule. The court of Accounts (TCU) ruled in 2016 that both institutions should harmonize their criterion and a decision is pending.[3] However, the rule does not have a direct correspondence to the fiscal aggregates commonly used in IMF fiscal policy analysis.

6. While there is no direct correspondence between the fiscal aggregates used in the expenditure ceiling and the annual fiscal target with the aggregates that are relevant for meeting the golden rule, complying with the spending cap rule in a growth friendly way—by cutting current spending instead of investments—boosts compliance with the golden rule.

C. The Wage Bill Rules

7. The FRL established limits on personnel expenditure (widely defined as expenditures on personnel and pensions) as a share of net current revenue for the federal government (50 percent), and states and municipalities (60 percent). Within each level of government, the law further specifies limits for the executive, legislative, judiciary and other offices, where applicable (Table 1).

Table 1. Wage Bill Rules: Spending on Personnel as a Share of Net Current Revenues
(Percent)

Government level	Power	Limit		
		Maximum	Prudential	Alert
Federal - 50%	Legislative	2.50	2.38	2.25
	Judiciary	6.00	5.70	5.40
	Executive	40.90	38.36	36.81
	Federal Prosecution Service	0.60	0.57	0.54
State - 60%	Legislative	3.00	2.85	2.71
	Judiciary	6.00	5.70	5.42
	Executive	49.00	46.55	44.22
	State-level Prosecution Service	2.00	1.90	1.81
Municipal - 60%	Legislative	6.00	5.70	5.42
	Executive	54.00	51.30	48.74

[3] At the moment, Treasury's interpretation prevails.

D. The Subnational Borrowing Limits

8. Although Brazil is organized under a federal system with a high degree of autonomy for subnational governments, the Senate regulates public sector indebtedness. The FRL introduced debt ceilings for each level of government which must be approved by Senate and are defined as a percentage of the net current revenue of each government level. In case of economic instability or drastic changes in monetary or exchange rate policy, the federal government can submit to the Senate a proposal for changing the limits. According to the FRL, the ratio of net public debt-to-net revenues cannot exceed 3.5 for the Federal government, 2 for States and 1.2 for Municipalities. Since an agreement was not reached on the limits for the Federal government the only the limits on indebtedness of States and Municipalities are currently in place. In addition, the National Monetary Council Resolutions authorize the central bank to control the supply of domestic bank credit to subnational governments.[4] There are also limits set by the Senate for annual borrowing of States and Municipalities.

E. The Primary Balance Target

9. The government sets multiyear numerical targets for the budget balance. The target is defined in terms of the primary balance, it is expressed in levels in the annual Law on Budget Directives, and is binding for the first year (although parliament can change it during the year). The targets for the following two years are indicative. The target must also include projections for the overall balance, expenditure and debt for the two following years and a description of fiscal risks with an assessment of contingent fiscal liabilities. Escape clauses exist for exceptional economic conditions and natural disasters and can be invoked with Congressional approval. In case of non-compliance, corrective measures need to be taken and can result in sanctions (the Fiscal Crimes Law details penalties for mismanagement, ranging from fines to loss of job).

F. Compliance Monitoring

10. The government's budget and compliance with fiscal rules are scrutinized by an independent fiscal council (IFI) created in 2016 and attached to the Senate. The IFI produces its own macroeconomic forecasts as a basis for its fiscal scenario; assess compliance with fiscal targets; evaluates the fiscal impact of government policies, including monetary, credit and foreign exchange policies; and projects the evolution of fiscal indicators that are relevant for long-term fiscal sustainability. The IFI does not provide normative analysis or recommendations. The Federal Court of Accounts (TCU) provides an ex post analysis of compliance with the primary balance targets and has the mandate to assess compliance with the expenditure rule.

[4] Under Resolution 2,827, outstanding loans to the public sector (the three levels, including public enterprises) may not exceed 45 percent of any bank's (private and public) net worth.

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INTERNATIONAL MONETARY FUND

BRAZIL

June 20, 2018

STAFF REPORT FOR THE 2018 ARTICLE IV CONSULTATION—INFORMATIONAL ANNEX

Prepared By

The Western Hemisphere Department
(In consultation with other departments)

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FUND RELATIONS

(As of April 30, 2018)

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)	10,125.67	91.7
Reserve Tranche Position	916.33	8.30
Lending to the Fund		
New Arrangement to Borrow	470.73	

SDR Department:

	SDR Million	Percent of Allocation
Net cumulative allocation	2,887.08	
Holdings	2,893.07	100.21

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				
	2018	2019	2020	2021	2022
Principal	0.00	0.00	0.00	0.00	0.00
Charges/interest	0.00	0.05	0.05	0.05	0.05
Total	**0.00**	**0.05**	**0.05**	**0.05**	**0.05**

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.

The tax on financial transactions (*Imposto sobre Operações Financeiras*, IOF) of 6.38 percent on exchange transactions carried out by credit card, debit card, and traveler's checks (including cash withdrawals) companies in order to fulfill their payment obligations for purchases of goods and services abroad by their customers gives rise to a multiple currency practice (MCP) subject to Fund jurisdiction under Article VIII, Sections 2(a) and 3. In January 2008, the IOF for these exchange transactions was raised to 2.38 percent and then further increased to 6.38 percent in March 2011. The scope of operations was expanded to other foreign exchange transactions than with credit cards in December 2013.

Last Article IV Consultation

The last Article IV consultation with Brazil was concluded by the Executive Board on July 3, 2017. Brazil is on the 12-month cycle. The Financial Sector Assessment Program (FSAP) took place in 2002, and was updated in 2005 and 2018.

Technical Assistance

The Fiscal Affairs Department (FAD) is supporting the Ministry of Finance in its efforts to strengthen medium term fiscal planning and improve transparency. A March 2017 mission on "Public Financial Management Reforms to Support the Implementation of the Expenditure Rule" followed up on the March 2016 mission on "Developing a more Resilient Fiscal Framework". FAD also carried out a Fiscal Transparency Evaluation (FTE) of the Federal Government, published in May 2017, and advised on the reform of PIS/COFINS in March 2017. FAD continues to support the State of São Paulo in implementing a cost accounting system for the public sector. FAD also supported the Inter-American Development Bank in carrying out a subnational FTE for the state of São Paulo, which was published in May 2017. The Statistics Department (STA) supported the National Statistical Institute (IBGE) with a report on "The Recording of Social Protection Arrangements in the National Accounts and Government Finance Statistics" in February 2017.

Resident Representative

The IMF maintains a resident representative office in Brasilia. The Resident Representative is Mr. Fabian Bornhorst, who assumed the post in April 2014.

RELATIONS WITH OTHER INTERNATIONAL FINANCIAL INSTITUTIONS

- World Bank: http://www.worldbank.org/en/country/brazil
- Inter-American Development Bank: https://www.iadb.org/en/countries/brazil

STATISTICAL ISSUES

(As of June 7, 2018)

I. Assessment of Data Adequacy for Surveillance
General: The quality of macroeconomic statistics has improved significantly, and data provision is adequate for surveillance.
National Accounts: Since 2015, the national accounts estimates are compiled in accordance to the *2008 System of National Accounts*. The availability of annual supply and use tables also contribute to the development of consistent national accounts estimates. The national accounts series and methodological notes are available on the internet (http://www.ibge.gov.br), and GDP series are available in *International Financial Statistics* (IFS). Brazil is participating in the G-20 Data Gaps Initiative regarding recommendation 8, which calls for compiling and disseminating sectoral accounts and balance sheets on a quarterly basis.
Price Statistics: Since July 1999, the price index reference for monetary policy has been the Broad Consumer Price Index (IPCA) compiled by the Brazilian Statistical Institute (IBGE). The IPCA covers changes in the prices of goods and services purchased by households earning between one and forty times the minimum wage in 11 metropolitan areas and two municipalities. The weight structure of the index was derived from the 2008-09 Consumer Expenditure Survey. Both the Getúlio Vargas Foundation and the IBGE compile producer price indices, IPA and IPP respectively, since 2010.
Government Finance Statistics: The Ministry of Finance and the Brazilian Central Bank (BCB) compile and disseminate government finance statistics using the *Government Finance Statistics Manual (GFSM) 2014* presentation. The reported statistics include the statement of government operations and balance sheet for the general government. In 2015, the National Treasury improved the general government statistics by introducing accrual basis of recording for government expenditures. The new methodology was applied for the series beginning in 2010. Since then, fiscal statistics follow cash basis of recording for revenues and accrual for expenditures. In 2017 non-financial assets were incorporated in the balance sheet for the period 2014 -2016. The gross debt indicator excludes government securities held by the central bank and not used in monetary policy operations, making international comparisons difficult.
Monetary and Financial Statistics: The BCB compiles and publishes monetary and financial statistics, with concepts, definitions, and classification that are broadly in line with the *Monetary and Financial Statistics Manual (MFSM) 2000*. In close cooperation with STA, the BCB introduced the standardized report forms based on accounting data in March 2013. However, the institutional coverage of the other financial corporations needs to be expanded to include insurance corporations, open pension funds, capitalization funds, and exchange houses. The BCB regularly reports quarterly FSIs to the IMF for publication. Currently, the BCB reports all core and 18 encouraged FSIs, with data beginning in Q1 2005. Plans are under way to compile the rest of the encouraged FSIs.

<table>
<tr><td colspan="2">External Sector Statistics: Brazil disseminates monthly and quarterly balance of payments and quarterly international investment position data on a sixth edition of the Balance of Payments and International Investment Position Manual (BPM6) basis. Data are sourced from a comprehensive data collection program. The BCB supplements the international transaction reporting system with other available sources such as surveys on transportation and other services, the survey on foreign assets held by Brazilian residents, and the census of foreign capital in Brazil. The BCB disseminates data on International Reserves and Foreign Currency Liquidity monthly. Brazil also participates in the Coordinated Direct Investment Survey (CDIS) and the Coordinated Portfolio Investment Survey (CPIS), and reports quarterly external debt data to the World Bank’s Quarterly External Debt Statistics (QEDS) database.</td></tr>
<tr><td colspan="2">II. Data Standards and Quality</td></tr>
<tr><td>Subscriber to the Fund’s Special Data Dissemination Standard (SDDS) since 2001. Uses SDDS flexibility options on the timeliness of the general government operations and depository corporations survey.

Implementing G-20 DGI recommendations: The authorities have already implemented a good number of the recommendations and work is underway to implement the remaining ones. Further progress would focus on monetary and financial statistics, real estate price indexes, and sectoral accounts.</td><td>No data ROSC is publicly available.</td></tr>
</table>

Brazil: Table of Common Indicators Required for Surveillance

(As of June 7, 2018)

	Date of Latest Observation	Date Received	Frequency of Data[7]	Frequency of Reporting[7]	Frequency of Publication[7]
Exchange Rates	5/07/18	6/07/18	D	D	D
International Reserve Assets and Reserve Liabilities of the Monetary Authorities[1]	5/07/18	6/07/18	D	D	D
Reserve/Base Money	Apr. 18	5/31/18	M	M	M
Broad Money	Apr. 18	5/31/18	M	M	M
Central Bank Balance Sheet	Apr. 18	5/31/18	M	M	M
Consolidated Balance Sheet of the Banking System	Q4 2017	3/31/18	M	M	Q
Interest Rates[2]	6/07/18	6/07/18	D	D	D
Consumer Price Index	Apr. 18	5/10/18	M	M	M
Revenue, Expenditure, Balance and Composition of Financing[3] – General Government[4]	Apr. 18	5/30/18	M	M	M
Revenue, Expenditure, Balance and Composition of Financing[3]– Central Government	Apr. 18	5/30/18	M	M	M
Stocks of Central Government and Central Government-Guaranteed Debt[5]	Apr. 18	5/30/18	M	M	M
External Current Account Balance	Apr. 18	5/22/18	Q	Q	M
Exports and Imports of Goods and Services	Apr. 18	5/22/18	M	M	M
GDP/GNP	Q1 2018	6/1/18	Q	Q	Q
Gross External Debt	Apr. 18	5/22/18	M	M	M
International Investment Position[6]	Q4 2017	5/22/18	Q	Q	Q

[1] Any reserve assets that are pledged or otherwise encumbered should be specified separately. Also, data should comprise short-term liabilities linked to a foreign currency but settled by other means as well as the notional values of financial derivatives to pay and to receive foreign currency, including those linked to a foreign currency but settled by other means.
[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] Includes external gross financial asset and liability positions vis-à-vis nonresidents.
[7] Daily (D); weekly (W); monthly (M); quarterly (Q); annually (A); irregular (I); and not available (NA).

INTERNATIONAL MONETARY FUND

BRAZIL

June 20, 2018

STAFF REPORT FOR THE 2018 ARTICLE IV CONSULTATION—DEBT SUSTAINABILITY ANALYSIS[1]

Approved By
K. Srinivasan (WHD) and V. Kramarenko (SPR)

Prepared by the Staff of the International Monetary Fund

Debt sustainability risks remain large. The gross debt of the non-financial public sector (NFPS) is rapidly increasing. Under the baseline scenario, public debt is projected to peak at 95.6 percent of GDP in 2023, reflecting a slow fiscal consolidation. The already high debt-to-GDP ratio is highly sensitive to real GDP growth, fiscal performance, and borrowing costs. A delay in implementing fiscal reforms would jeopardize sustainability.

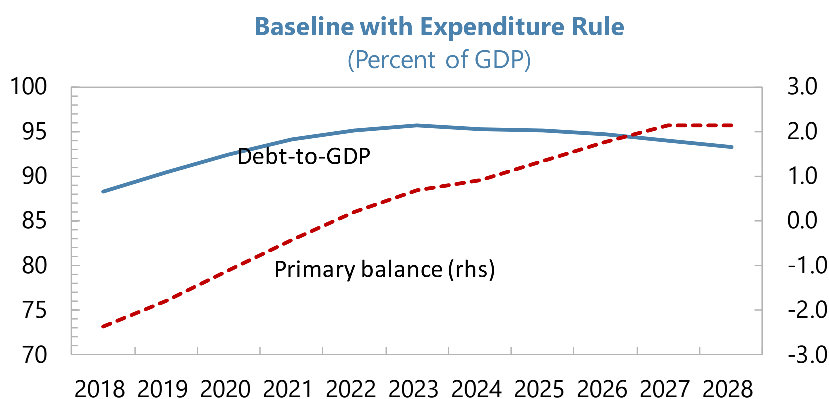
[1] The analysis of public debt sustainability is based on the framework developed for market access countries. See Staff Guidance Note for Public Debt Sustainability Analysis in Market Access Countries, IMF, May 2013.

BACKGROUND

1. Definitions and coverage. The gross debt statistics of Brazil cover the non-financial public sector (NFPS), excluding the state-owned enterprises (SOEs) Petrobras and Eletrobras, and consolidate the Sovereign Wealth Fund. Following the GFSM 2014 manual, the NFPS debt includes all Treasury securities on the Central Bank's (BCB) balance sheet.[2] At end-2017, gross debt amounted to 84 percent of GDP. As reported by the government, net debt corresponds to the entire public sector, consolidating the BCB. The consolidated public sector has a large stock of assets, equal to 34.3 of GDP in 2017, which include international reserves amounting to 18.9 of GDP. Brazil's debt is reported at nominal value.[3]

2. Debt profile. Federal government (FG) domestic tradable securities account for 92 percent of total NFPS gross debt, of which close to 2/3 is held by the public and the rest is held by the BCB.[4] Nearly 1/3 of FG domestic tradable securities are fixed income securities, 1/3 are linked to inflation, and 1/3 are linked to the SELIC rate. Zero coupon bonds with original maturities over one year constitute slightly more than half of FG domestic tradable securities held by the public. About 17 percent of FG domestic tradable securities will mature in 2018. Foreign currency denominated NFPS debt accounted for only 4.3 percent of GDP. Gross financing needs have been consistently above 15 percent of GDP; however, a large fraction of the federal government debt (about 33 percent of total) is held by BCB, following a policy of automatic rollover.

3. Debt developments. At the end-2017, Brazil's NFPS gross debt amounted to 84 percent of GDP, 5.5 percentage points higher than a year before. Public sector net debt amounted to 51.6 percent of GDP. A primary deficit of 1.7 percent of GDP and net interest payments of 6.1 percent of GDP contributed to the increase in gross debt. Net interest payments were slightly lower than the value recorded in 2016 (6.5 percent of GDP), reflecting declining premia and lower Selic. Average maturity of FG securities edged down slightly to 4.3 from 4.5 years in 2016. In September and October 2017, the national development bank (BNDES) repaid R$50 billion in outstanding government securities to the Treasury, which resulted in the proportional decline in NFPS



Sources: Fund Staff estimates.

[2] In contrast, the authorities' definition of 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. Thus, per the national definition, gross debt of the general government amounted to 74 percent of GDP at end-2017.

[3] The nominal value is calculated as the PDV of future interest and principal payments at the security's contractual interest rate(s), and generally differs from face value.

[4] The BCB uses about ¾ of its holdings as security in liquidity-draining operations with the banking system.

assets of 0.7 percent of GDP. An additional repayment of 130bn *reais* in 2018 is mandated and will contribute to lowering the stock of gross debt of up to 2 percent of GDP.

BASELINE AND REALISM OF PROJECTIONS

4. Macroeconomic assumptions. The projections assume real GDP growth of 1.8 percent in 2018, and a gradual return to potential growth of 2.2 percent by 2020. The primary balance moves into positive territory in 2022 (0.1 percent of GDP) and the cumulative adjustment is of about 3 percentage points of GDP during 2018−23. Nominal interest rates on new borrowing are between 6.6 and 10.7 percent over the projection horizon, bringing the effective interest rate to about 8.9 percent on average.[5] The baseline scenario assumes limited structural reforms and favorable external conditions. Gross debt remains on an upward trajectory, reaching 95.6 percent of GDP by 2023. If the expenditure cap remains in place until 2027, and the primary balance follows the same consolidation path, debt peaks in 2023 and starts falling in 2024. The timing of the debt peak is sensitive to variation in assumptions about the real interest rate and growth over the projection horizon. The debt stabilizing primary balance in the baseline scenario is 1.1 percent of GDP (excluding interest revenue).[6]

Box 1. Large Fiscal Effort to Stabilize the Debt Ratio

A primary surplus of about one percent of GDP is needed to stabilize the gross debt-to-GDP at 95.6 percent in 2023. The table below reports the debt-stabilizing primary balance (DSPB) required to stabilize the gross debt-to-GDP at 95.6 percent for various combinations of real growth and real interest rates.[1] Under the baseline scenario of 2.2 percent growth and 8.6 percent nominal effective interest rate in 2023, the DSPB is 1.1 percent of GDP. A lower primary surplus can only be sustained along higher real growth or lower real interest rates (or both), as shown in the shaded area in the table.

An adverse shock that pushes growth down or real interest rates up will require even higher DSPB. In an event that real growth falls (below 2 percent) and interest rates increase (above 8 percent), the primary surplus required to stabilize the debt-to-GDP level becomes large, above 2.0 percent of GDP and above.

Debt Stabilizing Primary Balance in 2023

(At 95.6 percent of GDP)

Real Growth Rate	Nominal Effective Interest Rate: 8.0	8.6	9.5	10.5	11.5
1.0	1.7	2.3	3.1	4.0	4.9
2.0	0.8	1.3	2.1	3.0	3.9
2.2	0.6	1.1	1.9	2.8	3.7
3.0	-0.2	0.4	1.2	2.1	2.9
4.0	-1.1	-0.5	0.2	1.1	2.0
4.5	-1.5	-1.0	-0.2	0.7	1.5

Baseline

Sources: IMF Staff calculations.

[1] The debt stabilizing primary balance is calculated using the formula: $pb = \frac{d}{(1+g)(1+\pi)}[i - \pi(1+g) - g] - int_rev$, where pb is the primary balance, d is gross debt in percent of GDP, i is the effective nominal interest rate, π is the inflation rate, g is real GDP growth, and int_rev is revenue from interest.

[5] Interest rates on new borrowing are derived by applying the expectations hypothesis of the term structure of interest rates to the Brazilian yield curve as of April 2018.

[6] The debt stabilizing primary balance shown on the right-most column of the table on "Contributions to changes in public debt" in the Baseline Scenario (1.3 percent of GDP) corresponds to a concept of the primary balance that

(continued)

5. Debt profile risks. The stock of debt and the gross financing needs are high and volatile, mainly because of the repayment schedule of existing zero-coupon bonds. GFN breach the high-risk threshold of 15 percent of GDP through most of the projection period (Figure 1). This indicator, however, overstates the financing needs for two reasons. First, the actual rollover risk is overstated because of the BCB's automatic debt roll over policy. Gross financing needs would be about 30 percent lower on average excluding rollover of BCB held bonds. Second, the interest on existing FG securities reported in the authorities' overall fiscal balance (and used in the DSA) includes accrued interest, in line with the reporting of debt at nominal value. This concept overstates the government's need for borrowing from markets in the early projection years by about 2 percent of GDP relative to cash interest. Nevertheless, debt sustainability risks are large.

6. Past forecast error. Forecast errors for GDP growth are larger than those in surveillance countries reflecting the fact that Brazil underwent its largest recession in a century during 2015−16.

7. Realism of projections. Brazil's projected fiscal adjustment (an improvement of about 1.4 percentage points in the cyclically-adjusted primary balance/GDP over the medium term) is in line with other surveillance countries' experience. Moreover, the projected path of the fiscal adjustment is based on the expenditure rule, which is a constitutional norm.

SHOCKS AND STRESS TESTS

8. Primary balance shock. In the primary balance shock scenario, consolidation efforts are deferred and the expenditure cap is abandoned starting in 2019. The primary balance deteriorates cumulatively by 8 percentage points of GDP over the period 2019−23 compared to the baseline. All other variables are kept at baseline levels to isolate the impact of the shock. Under this scenario, gross debt-to-GDP increases to 104.2 percent (8.6 percentage points above the baseline) in 2023, while gross financing needs reach 31.7 percent of GDP.

9. Growth shock. Under the growth shock scenario, real output growth is reduced by one standard deviation (3.5 percent) for two consecutive periods starting in 2019. Over the period 2019−20, real GDP contracts by a cumulative 2.3 percent. All other variables are kept at baseline levels. Under this scenario, gross debt-to-GDP reaches 102.4 percent, with gross financing needs standing at 29.6 percent.

10. Real interest rate and real exchange rate shocks. In the real interest rate shock scenario, the real interest rate is increased by 400bps over the period 2019−23. In the real exchange rate shock scenario, the real exchange rate depreciates by 26 percent (maximum movement over the past 10 years) in 2019, and it remains at this level until the end of the projection period. The impact of these shocks on debt and gross financing needs is modest, pushing debt-to-GDP by 5 and 0.7 percentage points above the baseline in 2023, respectively.

11. Combined macro-fiscal shock. The macro-fiscal shock combines the real growth, interest rate, exchange rate and the primary balance shocks as described above. The impact of the macro-fiscal shock on

includes interest revenue. The definition of the primary balance as a non-interest concept is customary in Brazil and corresponds to 1.1 percent of GDP quoted in the main text.

gross debt-to-GDP is large. The gross debt-to-GDP ratio reaches 117.5 percent by 2023, 21.9 percent above the baseline, with gross financing needs peaking at 34.9 percent of GDP.

12. **Stronger growth.** In this scenario, the output gap is closing faster as growth is on average 1.5 percentage point higher in each projection year compared to the baseline. The ensuing stronger primary surpluses are a consequence of higher revenues and unchanged expenditure projections. Gross debt-to-GDP declines by about 20 percentage points of GDP by 2023. The underlying assumption in this scenario is that the authorities comply with expenditure ceiling using high-quality measures. In this scenario, also a strong fiscal framework would be adopted.

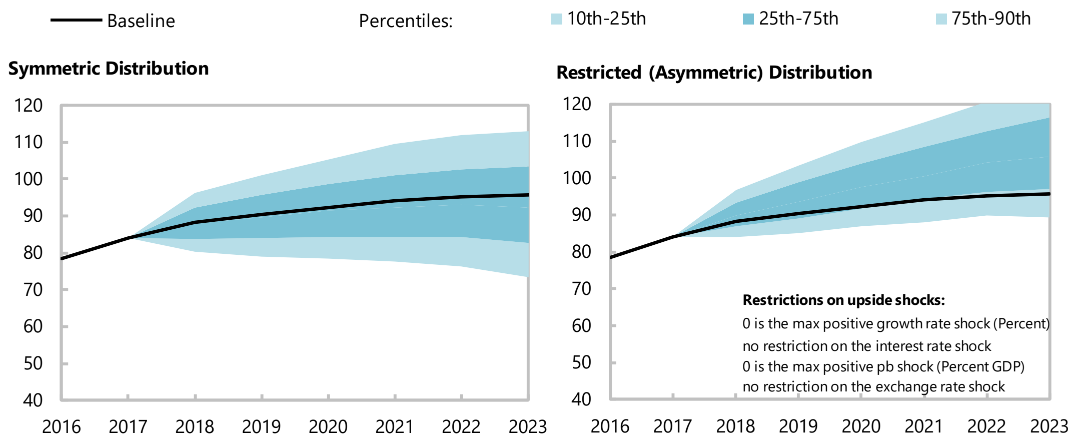
Figure 1. Brazil: Public DSA—Risk Assessment

Heat Map

Debt level 1/	Real GDP Growth Shock	Primary Balance Shock	Real Interest Rate Shock	Exchange Rate Shock	Contingent Liability shock
Gross financing needs 2/	Real GDP Growth Shock	Primary Balance Shock	Real Interest Rate Shock	Exchange Rate Shock	Contingent Liability Shock
Debt profile 3/	Market Perception	External Financing Requirements	Change in the Share of Short-Term Debt	Public Debt Held by Non-Residents	Foreign Currency Debt

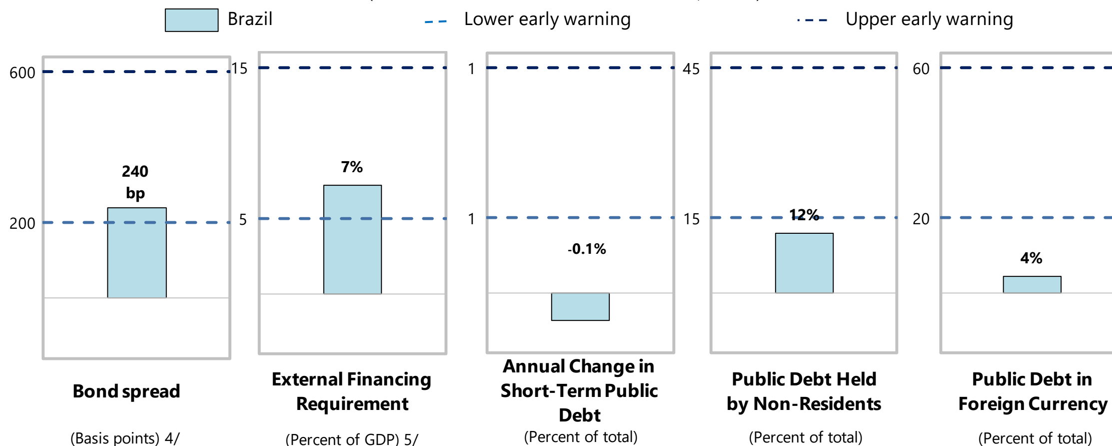
Evolution of Predictive Densities of Gross Nominal Public Debt

(Percent of GDP)



Debt Profile Vulnerabilities

(Indicators vis-à-vis risk assessment benchmarks, in 2017)



Source: IMF staff.

1/ The cell is highlighted in green if debt burden benchmark of 70% is not exceeded under the specific shock or baseline, yellow if exceeded under specific shock but not baseline, red if benchmark is exceeded under baseline, white if stress test is not relevant.

2/ The cell is highlighted in green if gross financing needs benchmark of 15% is not exceeded under the specific shock or baseline, yellow if exceeded under specific shock but not baseline, red if benchmark is exceeded under baseline, white if stress test is not relevant.

3/ The cell is highlighted in green if country value is less than the lower risk-assessment benchmark, red if country value exceeds the upper risk-assessment benchmark, yellow if country value is between the lower and upper risk-assessment benchmarks. If data are unavailable or indicator is not relevant, cell is white.
Lower and upper risk-assessment benchmarks are:

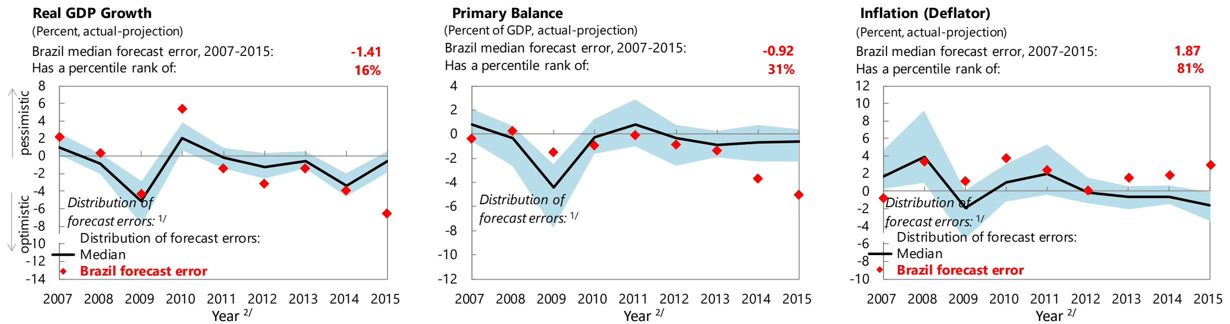
200 and 600 basis points for bond spreads; 5 and 15 percent of GDP for external financing requirement; 0.5 and 1 percent for change in the share of short-term debt; 15 and 45 percent for the public debt held by non-residents; and 20 and 60 percent for the share of foreign-currency denominated debt.

4/ Long-term bond spread over U.S. bonds, an average over the last 3 months, 02-Jan-18 through 02-Apr-18.

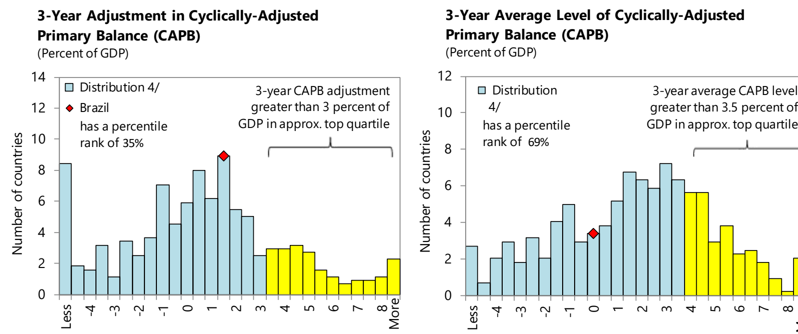
5/ External financing requirement is defined as the sum of current account deficit, amortization of medium and long-term total external debt, and short-term total external debt at the end of previous period.

Figure 2. Brazil: Public DSA—Realism of Baseline Assumptions

Forecast Track Record, versus surveillance countries



Assessing the Realism of Projected Fiscal Adjustment



Source : IMF Staff.

1/ Plotted distribution includes surveillance countries, percentile rank refers to all countries.

2/ Projections made in the spring WEO vintage of the preceding year.

3/ Not applicable for Brazil.

4/ Data cover annual obervations from 1990 to 2011 for advanced and emerging economies with debt greater than 60 percent of GDP. Percent of sample on vertical axis.

Figure 3. Brazil: Public Sector Debt Sustainability Analysis (DSA)—Baseline Scenario

(Percent of GDP unless otherwise indicated)

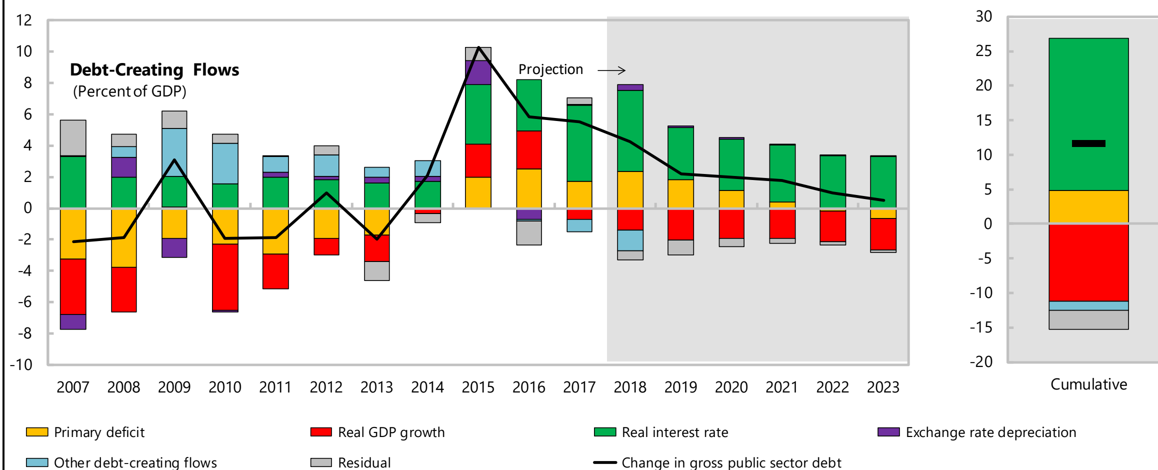
Debt, Economic and Market Indicators 1/

	Actual						Projections				
	2008-13 [2/]	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Nominal gross public debt	63.6	62.3	72.6	78.4	84.0	88.2	90.4	92.4	94.2	95.1	95.6
Public gross financing needs	15.5	15.9	19.0	20.6	19.3	14.9	16.6	18.6	23.8	23.5	26.7
Real GDP growth (in percent)	2.2	0.5	-3.5	-3.5	1.0	1.8	2.5	2.3	2.2	2.2	2.2
Inflation (GDP deflator, in percent)	8.0	7.9	7.6	8.1	3.8	3.1	4.9	4.9	4.8	4.8	4.8
Nominal GDP growth (in percent)	10.4	8.4	3.7	4.4	4.8	4.9	7.5	7.2	7.1	7.1	7.1
Effective interest rate (in percent) 4/	11.8	11.0	13.7	12.6	10.3	9.6	9.1	8.9	9.1	8.7	8.6

As of April 02, 2018		
Sovereign Spreads		
EMBIG (bp) 3/		251
5Y CDS (bp)		166
Ratings	Foreign	Local
Moody's	Ba2	Ba2
S&Ps	BB-	BB-
Fitch	B	B

Contribution to Changes in Public Debt

	Actual					Projections							
	2008-13	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Cumulative	Debt-Stabilizing Balance 10/
Identified debt-creating flows	1.2	2.7	9.4	7.4	5.1	4.8	3.1	2.5	2.1	1.2	0.7	14.4	1.3
Primary deficit	-1.2	0.0	2.0	2.5	1.7	2.4	1.8	1.1	0.4	-0.2	-0.7	4.8	
Primary (noninterest) revenue and grants	32.4	31.8	28.2	28.3	28.5	28.2	27.8	27.9	28.3	28.3	28.3	168.9	Without interest
Primary (noninterest) expenditure	31.2	31.8	30.2	30.8	30.2	30.6	29.6	29.0	28.8	28.1	27.6	173.7	1.1
Automatic debt dynamics 5/	1.3	1.8	7.5	5.0	4.2	3.8	1.3	1.4	1.7	1.4	1.3	10.9	
Interest rate/growth differential 6/	0.9	1.4	5.9	5.7	4.1	3.8	1.3	1.4	1.7	1.4	1.3	10.9	
Of which: real interest rate	2.1	1.7	3.8	3.3	4.9	5.2	3.4	3.3	3.6	3.3	3.3	22.1	
Of which: real GDP growth	-1.2	-0.3	2.1	2.4	-0.7	-1.4	-2.0	-1.9	-1.9	-2.0	-2.0	-11.2	
Exchange rate depreciation 7/	0.4	0.4	1.5	-0.7	0.1	...	...	...	...	...	...	...	
Other identified debt-creating flows	1.1	1.0	0.0	-0.1	-0.8	-1.3	0.0	0.0	0.0	0.0	0.0	-1.3	
Privatization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Contingent liabilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Other flows	1.1	1.0	0.0	-0.1	-0.8	-1.3	0.0	0.0	0.0	0.0	0.0	-1.3	
Residual, including asset changes 8/	0.0	-0.6	0.8	-1.6	0.4	-0.6	-0.9	-0.5	-0.3	-0.2	-0.2	-2.8	
o/w "Interest revenue" 9/	-1.3	-1.3	-0.7	0.2	-2.2	-0.9	-1.0	-0.6	-0.4	-0.3	-0.2	-3.4	



Source: IMF staff.

1/ Public sector is defined as non-financial public sector.

2/ Based on available data.

3/ Long-term bond spread over U.S. bonds.

4/ Defined as interest payments divided by debt stock (excluding guarantees) at the end of previous year.

5/ Derived as $[(r - \pi(1+g) - g + ae(1+r)]/(1+g+\pi+g\pi))$ times previous period debt ratio, with r = interest rate; π = growth rate of GDP deflator; g = real GDP growth rate; a = share of foreign-currency denominated debt; and e = nominal exchange rate depreciation (measured by increase in local currency value of U.S. dollar).

6/ The real interest rate contribution is derived from the numerator in footnote 5 as $r - \pi(1+g)$ and the real growth contribution as $-g$.

7/ The exchange rate contribution is derived from the numerator in footnote 5 as $ae(1+r)$.

8/ Includes asset changes and interest revenues (if any). For projections, includes exchange rate changes during the projection period.

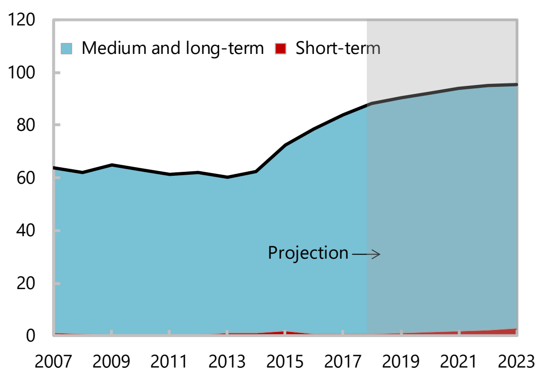
9/ "Interest revenue" is a reconciliation series calculated as a difference between the gross interest of the NFPS and the net interest of the PS. This concept is used to maintain consistency between the fiscal accounts, in which the net interest used to compute the overall balance includes also the net interst bill of the BCB, and gross interest of the NFPS in the DSA.

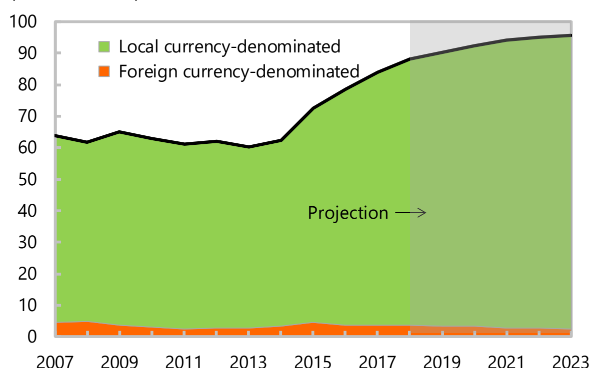
10/ Assumes that key variables (real GDP growth, real interest rate, and other identified debt-creating flows) remain at the level of the last projection year.

Up to 2023, the primary balance is a non-interest balance, with interest income showing in the residual. From 2024 onwards interest income counts toward the required primary balance.

Figure 4. Brazil: Public DSA—Composition of Public Debt and Alternative Scenarios

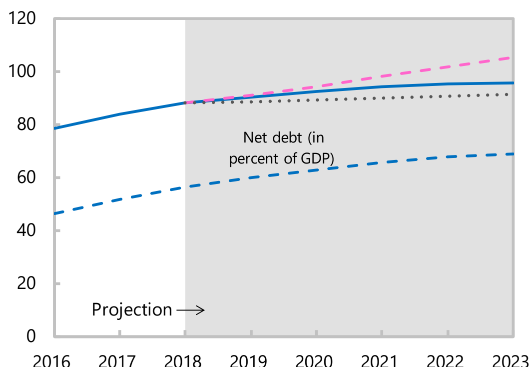
Composition of Public Debt

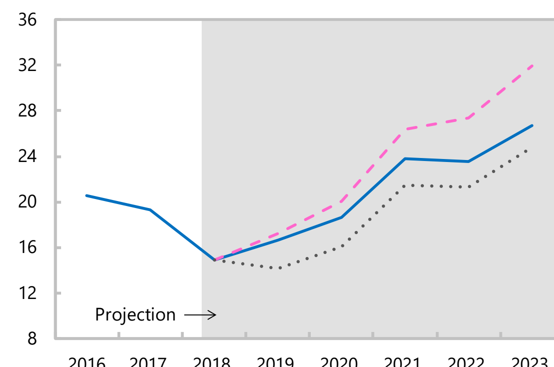




Alternative Scenarios

Baseline | Historical | Constant Primary Balance





Underlying Assumptions

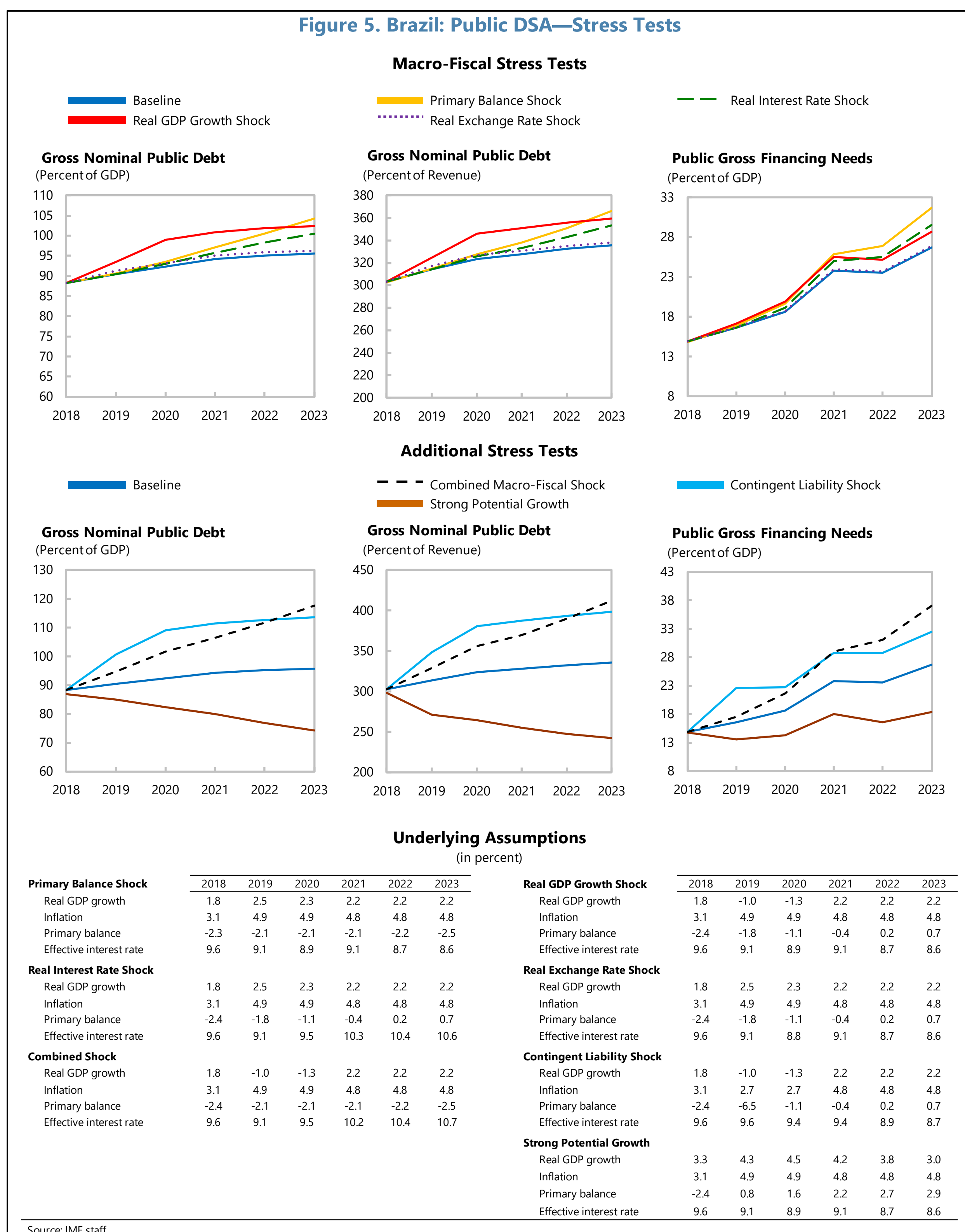
(Percent)

Baseline Scenario	2018	2019	2020	2021	2022	2023
Real GDP growth	1.8	2.5	2.3	2.2	2.2	2.2
Inflation	3.1	4.9	4.9	4.8	4.8	4.8
Primary Balance	-2.4	-1.8	-1.1	-0.4	0.2	0.7
Effective interest rate	9.6	9.1	8.9	9.1	8.7	8.6
Constant Primary Balance Scenario						
Real GDP growth	1.8	2.5	2.3	2.2	2.2	2.2
Inflation	3.1	4.9	4.9	4.8	4.8	4.8
Primary Balance	-2.4	-2.4	-2.4	-2.4	-2.4	-2.4
Effective interest rate	9.6	9.1	8.9	9.1	8.7	8.6

Historical Scenario	2018	2019	2020	2021	2022	2023
Real GDP growth	1.8	1.6	1.6	1.6	1.6	1.6
Inflation	3.1	4.9	4.9	4.8	4.8	4.8
Primary Balance	-2.4	0.8	0.8	0.8	0.8	0.8
Effective interest rate	9.6	9.1	8.8	9.0	8.5	8.4

Source: IMF staff.

Figure 5. Brazil: Public DSA—Stress Tests



Underlying Assumptions
(in percent)

Primary Balance Shock	2018	2019	2020	2021	2022	2023
Real GDP growth	1.8	2.5	2.3	2.2	2.2	2.2
Inflation	3.1	4.9	4.9	4.8	4.8	4.8
Primary balance	-2.3	-2.1	-2.1	-2.1	-2.2	-2.5
Effective interest rate	9.6	9.1	8.9	9.1	8.7	8.6
Real Interest Rate Shock						
Real GDP growth	1.8	2.5	2.3	2.2	2.2	2.2
Inflation	3.1	4.9	4.9	4.8	4.8	4.8
Primary balance	-2.4	-1.8	-1.1	-0.4	0.2	0.7
Effective interest rate	9.6	9.1	9.5	10.3	10.4	10.6
Combined Shock						
Real GDP growth	1.8	-1.0	-1.3	2.2	2.2	2.2
Inflation	3.1	4.9	4.9	4.8	4.8	4.8
Primary balance	-2.4	-2.1	-2.1	-2.1	-2.2	-2.5
Effective interest rate	9.6	9.1	9.5	10.2	10.4	10.7

Real GDP Growth Shock	2018	2019	2020	2021	2022	2023
Real GDP growth	1.8	-1.0	-1.3	2.2	2.2	2.2
Inflation	3.1	4.9	4.9	4.8	4.8	4.8
Primary balance	-2.4	-1.8	-1.1	-0.4	0.2	0.7
Effective interest rate	9.6	9.1	8.9	9.1	8.7	8.6
Real Exchange Rate Shock						
Real GDP growth	1.8	2.5	2.3	2.2	2.2	2.2
Inflation	3.1	4.9	4.9	4.8	4.8	4.8
Primary balance	-2.4	-1.8	-1.1	-0.4	0.2	0.7
Effective interest rate	9.6	9.1	8.8	9.1	8.7	8.6
Contingent Liability Shock						
Real GDP growth	1.8	-1.0	-1.3	2.2	2.2	2.2
Inflation	3.1	2.7	2.7	4.8	4.8	4.8
Primary balance	-2.4	-6.5	-1.1	-0.4	0.2	0.7
Effective interest rate	9.6	9.6	9.4	9.4	8.9	8.7
Strong Potential Growth						
Real GDP growth	3.3	4.3	4.5	4.2	3.8	3.0
Inflation	3.1	4.9	4.9	4.8	4.8	4.8
Primary balance	-2.4	0.8	1.6	2.2	2.7	2.9
Effective interest rate	9.6	9.1	8.9	9.1	8.7	8.6

Source: IMF staff.

Statement by Alexandre Tombini, Executive Director for Brazil
July 9, 2018

1. I would like to thank staff for the report and for the productive engagement with the Brazilian authorities. I would also like to thank staff for the laborious FSAP exercise and for the comprehensive FSSA report.

The ongoing gradual recovery

2. **Brazil has taken important steps to restore confidence, bring inflation down, and create better conditions for a sustainable economic recovery.** Congress has approved a constitutional ceiling for federal expenditures, increased budget flexibility, and enacted a comprehensive labor reform. A series of initiatives by the authorities has improved the transparency and the soundness of the fiscal framework. A wide-ranging agenda being undertaken by the central bank is expected to trim the margins of credit to policy rates and increase the traction of monetary policy.

3. **The Brazilian economy resumed growth last year and remains in a path of measured recovery, underpinned by a policy mix combining gradual fiscal consolidation and a supportive monetary policy stance.** As confidence improved and inflation declined to historical lows, monetary policy has been accommodative, with the policy rate set at a record low level. On the fiscal front, discretionary spending has been slashed and reached levels last seen in 2010. Excluding the social security balance, the central government posted in the first five months of this year a primary surplus of R$57 billion, more than R$20 billion above the result in the same period last year in real terms. Nonetheless, authorities agree that more needs to be done to contain mandatory expenditures and create room for needed public investment within the spending ceiling. In spite of the efforts to undertake parametric changes in social security – which led to widespread awareness within the congress and in society at large – there was no sufficient political momentum to approve the constitutional reform before the elections this year.

Recent developments and outlook

4. **Recently, a more challenging and volatile external scenario, with declining risk appetite for emerging markets, has compounded with a slowdown in the recovery in the first quarter and a 10-day strike in truck freight transportation, leading to downward revisions in growth projections for this year.** Growth of 0.4 percent (qoq) in the first quarter of 2018 marked the fifth consecutive positive quarter after two straight years of contraction. Investment and private consumption continued to perform well, growing 5.3 and 2.9 percent (1Q18/1Q17), respectively. Activity in the agricultural sector has remained buoyant amid more tepid developments in the industrial sector. Notwithstanding the ongoing gradual recovery, the economy continues to operate with significant slack, reflected in low levels of capacity utilization and a high, albeit declining, unemployment rate. The Central

Bank of Brazil (BCB) now forecasts a 1.6 percent growth for 2018, in line with market expectations and one percentage point below what was projected at the end of March.

5. **With the loss of growth momentum and the challenging external environment, monetary policy remains accommodative, while at the same time vigilant to inflation expectations and second-round effects of relative price adjustments.** Inflation has been running below the tolerance range, having reached 2.9 percent last May. Impacts from the transport sector strike and the weakening of the domestic currency are still unfolding and are expected to be considerable, but temporary. So far, available data suggest that inflation behavior remains benign. The most recent market survey indicates that inflation expectations for this year and the next remain well-anchored around 4 percent, still below the target, which has been set on a downward path to 3.75 percent in 2021. Nevertheless, risks to the baseline scenario are also present and could come from either external or internal shocks, the latter also comprising unfavorable perceptions about the pace of reforms needed to put the Brazilian economy on a sounder footing.

6. **The fiscal stance will continue to be consistent with a gradual consolidation path, while being mindful of risks and taking any opportunity provided by unexpected revenues to strengthen the primary balance.** The authorities remain committed to a sustainable fiscal path, anchored by the spending ceiling, which ensures a contraction of roughly half a percentage point per year in the public expenditure ratio to GDP. The approval of a comprehensive pension reform will be instrumental for the proper application of the spending ceiling. Staff mentions that the 2018 budget loosens the fiscal stance, as several provisions that were in the bill sent by the government ended up not being approved by congress. While agreeing that the budget would be tighter if approved as submitted, the fiscal stance must be assessed by the execution of revenue collection and primary spending. For the first five months of this year, the primary deficit of the central government at R$ 16.4 billion is less than half the deficit for the same period in 2017 (R$ 36.6 billion). If the results are adjusted for the timing of the payment of court ordered credits (*precatórios*), making the figures more comparable, the 2018 Jan-May primary deficit would be only R$ 5.7 billion, less than 16 percent of last year's figure.

7. **The external sector has undergone a thorough adjustment and Brazil is well-positioned to weather exogenous shocks coming from a more adverse international environment.** Current account deficit (CAD) has shrunk to 0.6 percent of GDP in May and should remain at this level by the end of the year – given the pace of the recovery and the depreciation of the real. The floating exchange rate has remained the first line of defense, working as a shock absorber and facilitating the adjustment to changing world conditions (since the adoption of the flexible regime in 1999, the BRL is one of the G20 currencies that has floated most extensively). The central bank has intervened transparently with swaps and repos to meet market unfulfilled demand for hedge and liquidity, avoiding disruptive dynamics, while letting the adjustment proceed. FDI continues to post robust figures, covering the CAD by several times, while the international reserves, at US$ 382 billion,

represent 28 months of imports and three and a half times all external debt related payments due within twelve months.

8. **Credit has evolved in line with the measured pace of the economic recovery and the stimulus from the monetary policy**. Average interest rate for new credit concessions has been declining in the non-earmarked segment for both households and businesses. While deleveraging is still incomplete in the corporate sector, the composition of corporate finance has been changing, as a larger share of financing needs has been met by capital markets and external credit. Household indebtedness has declined to a level close to 2011, allowing for credit to expand in line with improvements in disposable income and lower costs.

Financial stability assessment

9. **We welcome the conclusion that the Brazilian financial system has remained resilient, after enduring well the deep contraction of 2015-2016.** Even after the real-life stress test they have been subject to, banks remain largely able to withstand another round of severe macroeconomic and financial shocks. Bank concentration in Brazil, albeit high, is similar to those of other mature economies. As in other jurisdictions with well-developed financial sectors, the Brazilian supervisory and regulatory frameworks and practices have evolved continuously. The authorities' efforts to improve financial regulation and supervision are greatly in line with FSAP recommendations, including the new regulation on Fintech to favor competition and enhance the reach and efficiency of the financial system, without hampering its stability. Increasing competition in the financial sector as well as tackling hindrances that contribute to the high cost of credit have become permanent objectives at the BCB and permeate the BC+ agenda. As can be expected in such a well-encompassing exercise, some specific recommendations did not resonate well with the authorities, for instance turning the deposit insurance fund, which has worked very effectively since its inception and is collectively owned by the system, into a public sector entity.

10. **In sum, while the policy stance is adjusted to cope with the weaker growth momentum and more challenging international environment, more reforms are needed to ensure the sustainability of the fiscal framework over time, as well as to further productivity and efficiency in the economy.**