INTERNATIONAL MONETARY FUND

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November 2016

2016 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 2016 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 October 31, 2016 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 October 31, 2016, following discussions that ended on September 26, 2016, 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 October 14, 2016.
- An **Informational Annex** prepared by the IMF staff.
- A **Debt Sustainability Analysis** prepared by the staff of the IMF.
- A **Staff Statement** updating information on recent developments.
- A **Statement by the Executive Director** for Brazil.

The document listed below have been or will be separately released.

Selected Issues

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

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November 15, 2016

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700 19th Street, NW
Washington, D. C. 20431 USA

IMF Executive Board Concludes 2016 Article IV Consultation with Brazil

On October 31, 2016, the Executive Board of the International Monetary Fund (IMF) concluded the Article IV consultation[1] with Brazil.

The government that took office in May 2016 has announced a series of measures to address long standing fiscal imbalances and budget rigidities. A strong push to implement the proposed measures on the expenditure side would go a long way towards restoring policy credibility and market confidence with positive effects on investment and growth. Early implementation of key fiscal policy measures would also help moderate inflation expectations and facilitate monetary policy easing.

Brazil is poised to emerge from a deep recession. The economy has contracted markedly in 2015 and 2016, reflecting mostly long-standing domestic issues, although terms of trade changes and weak global demand also played an important role. Tighter financial conditions and slowing credit and uncertainty surrounding the political scene have been the main factors behind the declining investment and consumption, and the ratcheting unemployment. A sharp realignment of regulated prices and monetary policy tightening also represented a drag on growth.

Headline and core inflation have been above the central target and around the upper limit of the central bank's tolerance range for several years. Monetary policy has correspondingly remained at its current tight level for over a year. But in 2016, some price increases have begun to moderate although disinflation proceeded slowly due to above target, albeit declining, inflation expectations and rising food prices.

The central bank has intervened in the foreign exchange market less frequently than in the past and broadly symmetrically, limiting corrective action to containing short-term excessive volatility. Taking advantage of the market rally started in March 2016, the central bank has

[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.

lowered the net notional value of outstanding FX swaps to about US$35 billion (from a high of about US$110 billion) by issuing reverse swaps and failing to roll over maturing swaps.

International reserves are above most IMF adequacy and other standard indicators and FDI fully financed the current account deficit which narrowed from 4.3 percent of GDP in 2014 to 3.3 percent in 2015. Brazil's external position remained, however, moderately weaker than the level consistent with fundamentals reflecting the recent reversal of exchange rate depreciation that occurred in 2015.

The health of the banking sector deteriorated somewhat but remains solid: the system wide capital ratios fell in 2015, but remain well above the regulatory minima; liquidity risk increased in 2015, but the overall funding profile of the system remained strong; external funding exposures are low and foreign exchange risks are largely hedged; profitability declined owing to a spike in provisions for loan losses and higher funding costs; non-performing loans (NPLs) have gradually increased, but remain moderate at 4.1 percent. Banks have remained well provisioned with loan loss reserves covering 150 percent of NPLs. However, nonfinancial corporates are leveraged and vulnerable.

Fiscal outcomes have been disappointing. In 2015 the non-financial public sector primary deficit reached 1.9 percent of GDP and the overall deficit was 10.4 percent of GDP. The primary deficit in 2016 is expected to reach 2.7 percent of GDP, and the overall balance would be close to that observed in 2015.

Since May 2016, the government announced a series of measures to strengthen macro policies and restore credibility. Notably, the government has sent to Congress a constitutional amendment limiting the growth in federal noninterest spending to the rate of consumer price inflation of the previous year for the next 20 years. The government has also announced a reform of the social security system, needed in its own right and also necessary to make the expenditure limit viable.

Fund staff expects activity to start to recover gradually, but remain weak for a prolonged period. Staff project output growth of -3.3 percent in 2016 and about ½ percent in 2017. The projection is predicated on the assumption the fiscal spending cap and social security reform are approved in a reasonable timeframe, and the government will meet the proposed fiscal targets for 2016 and 2017. With these improvements on the fiscal front, and assuming uncertainty continues to decline, investment is projected to continue to recover, supporting a gradual return to positive sequential growth beginning in late 2016. The outlook is subject to downside risks, including the re-intensification of political uncertainties (e.g., as a result of developments in the corruption probe) and risks related to a protracted period of slower growth in advanced and emerging economies, especially China, further declines in export commodity prices, and tighter financial conditions.

Executive Board Assessment[2]

Executive Directors agreed that Brazil's difficult economic situation had resulted from several factors, including past policy missteps, policy uncertainty, and external shocks. The recession has lowered growth, raised unemployment, and undermined public and private balance sheets. However, the economy appeared to be stabilizing and near term prospects were for a gradual resumption of economic growth. Looking forward, Directors strongly emphasized the need for fiscal consolidation to ensure macroeconomic stability and comprehensive structural reforms to raise potential growth.

Directors welcomed the authorities' announced fiscal strategy noting that it had helped boost confidence and market sentiment. They supported the focus on controlling expenditure growth, including through the proposed federal spending cap. This expenditure restraint may need to be complemented with revenue measures to achieve fiscal targets if revenue collections disappoint in the future. Most directors noted the potential positive effects of a front loaded fiscal consolidation strategy on borrowing costs, savings, confidence, debt sustainability and medium term growth. While recognizing the necessity of consolidation measures, a number of other Directors cautioned against more front loaded measures until growth is on a strong recovery path.

Directors underlined the need for reform of social security schemes, including those for civil servants at all levels of government, in view of unfavorable demographic trends and large actuarial imbalances. They emphasized the centrality of this reform for the viability of the federal spending cap. Directors also expressed concern over subnational finances, and encouraged the authorities to continue to develop durable solutions in coordination with the states.

Directors noted that monetary policy had been appropriately calibrated, with the tight stance of the last two years warranted by strong inflation pressures. While conditions for a gradual easing cycle are taking shape now, with inflation expectations converging toward the target, Directors recommended that monetary policy should remain relatively tight until more tangible progress in fiscal adjustment and reforms is made and inflation expectations move closer to the central bank's inflation target. Directors welcomed the intention to strengthen Brazil's inflation targeting framework by enhancing the central bank's autonomy and improving its communications.

Directors underscored that the floating exchange rate system and reserve buffers were two main sources of strength for Brazil and should be preserved. They welcomed the reduction in foreign exchange intervention, and recommended that market intervention be limited to smoothing excessive volatility.

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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 highlighted that the financial system has remained sound amidst the recession and low credit growth and see scope for making the financial system even more robust by enhancing the financial safety net. Directors underscored the need for continued vigilance and close monitoring of the health of the corporate sector and its links to the banking sector.

Directors strongly recommended that the authorities step up their structural reforms efforts to raise long term growth, including in the areas of tax policy, labor markets, and infrastructure. They also underscored the importance of trade reforms to increase competitiveness and efficiency.

Directors commended Brazil for the effective implementation of AML/CFT measures and encouraged the authorities to pursue further reforms. They noted the need for strengthened reporting of fiscal statistics of SOEs, public banks, and states' finances, and encouraged the authorities to monitor and enforce subnational fiscal rules.

Brazil: Selected Economic and Social 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 (2013)	1.9
Population		Hospital beds per 1000 people (2012)	2.3
Total (million) (est., 2015)	204.5	Access to safe water (2015)	98.1
Annual rate of growth (percent, 2015)	0.8	Education	
Density (per sq. km.) (2012)	24.0	Adult illiteracy rate (2014)	8.3
Unemployment rate (average, 2016)	11.6	Net enrollment rates, percent in:	
Population characteristics (2014)		Primary education (2014)	99
Life expectancy at birth (years)	75	Secondary education (2014)	84
Infant mortality (per thousand live births)	15	Poverty rate (in percent, 2013)	15.1
Income distribution (2014)		GDP (2015)	R$5,904 billion
By highest 10 percent of households	40.9		US$1,773 billion
By lowest 20 percent of households	3.6	GDP per capita (est., 2015)	US$8 billion
Gini coefficient (2014)	51.8		

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

II. Economic Indicators

			Proj.					
	2014	2015	2016	2017	2018	2019	2020	2021
National accounts and prices			(Annual percentage change)					
GDP at current prices	7.0	3.8	4.4	6.6	6.9	7.2	7.1	7.1
GDP at constant prices	0.1	-3.8	-3.3	0.5	1.5	2.0	2.0	2.0
Consumption	1.3	-3.4	-4.1	-0.4	0.6	0.8	1.0	1.1
Investment	-5.6	-22.6	-11.3	4.6	5.1	7.1	6.1	5.5
Consumer price index (IPCA, end of period)	6.4	10.7	7.2	5.0	4.8	4.5	4.5	4.5
			(In percent of GDP)					
Gross domestic investment	21.0	19.2	18.4	18.9	19.4	20.1	20.7	21.3
Private sector	18.6	17.3	17.0	17.4	17.9	18.7	19.2	19.7
Public sector	2.4	1.9	1.4	1.5	1.6	1.5	1.5	1.6
Gross national savings	16.7	15.9	17.6	17.4	17.7	18.3	19.0	19.5
Private sector	20.2	24.1	26.5	25.3	24.2	23.9	23.8	23.7
Public sector	-3.5	-8.2	-8.9	-7.8	-6.5	-5.6	-4.8	-4.2
Public sector finances			(In percent of GDP)					
Central government primary balance 1/	-0.4	-2.0	-2.7	-2.4	-1.7	-0.9	-0.2	0.4
NFPS primary balance	-0.6	-1.9	-2.7	-2.3	-1.3	-0.5	0.1	0.8
NFPS overall balance	-1.5	-1.7	-1.6	-1.4	-0.8	-0.3	0.1	0.8
NFPS overall balance (incl. net policy lending)	-7.0	-10.4	-10.5	-9.5	-8.2	-7.2	-6.2	-5.9
Net public sector debt	33.1	36.2	45.9	50.9	54.1	56.8	59.7	62.5
GG gross debt (authorities' definition)	57.2	66.5	...	...	...	...	...	…
NFPS gross debt	63.3	73.7	78.4	82.9	85.7	88.2	90.9	93.5
Of which: Foreign currency linked	3.4	4.6	3.8	3.7	3.7	3.6	3.6	3.5
Money and Credit			(Annual percentage change)					
Base money 2/	-4.5	8.4	4.5	6.7	6.9	7.2	7.1	7.1
Broad money 3/	13.5	9.8	5.8	9.6	10.0	10.6	13.6	14.4
Bank loans to the private sector	10.9	3.6	1.2	5.6	9.3	11.4	12.0	12.6
Balance of payments			(In billion of U.S. dollars, unless otherwise specified)					
Trade balance	-6.6	17.7	48.5	48.6	47.3	46.5	49.2	51.9
Exports	224.1	190.1	197.6	206.7	210.9	215.7	224.8	233.6
Imports	230.7	172.4	149.1	158.1	163.6	169.2	175.7	181.8
Current account	-104.2	-58.9	-14.7	-29.5	-34.9	-38.6	-39.9	-41.2
Capital account and financial account	100.8	55.2	14.7	29.5	34.9	38.6	39.9	41.2
Foreign direct investment (net)	70.9	61.6	61.8	56.7	53.1	50.8	49.2	47.7
Terms of trade (percentage change)	-3.4	-11.0	3.2	-2.5	-2.9	-2.4	-0.7	-0.5
Merchandise exports (in US$, annual pct. change)	-7.2	-15.2	3.9	4.6	2.0	4.4	6.6	3.9
Merchandise imports (in US$, annual pct. change)	-4.3	-25.3	-13.5	6.0	3.5	7.0	7.4	3.5
Total external debt (in percent of GDP)	29.5	37.5	38.4	35.3	34.4	33.1	31.7	30.2
Memorandum items								
Current account (in percent of GDP)	-4.3	-3.3	-0.8	-1.5	-1.7	-1.8	-1.8	-1.8
Gross official reserves	363.6	356.5	369.3	369.3	369.3	369.3	369.3	369.3
REER (annual avg., in pct. change; appreciation +)	-1.0	-15.8	...	...	...	...	...	...

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

1/ Includes the federal government, the central bank, and the social security system (INSS). Based on the 2016 draft budget, recent announcements by the authorities, and staff projections.

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

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

INTERNATIONAL MONETARY FUND

BRAZIL

STAFF REPORT FOR THE 2016 ARTICLE IV CONSULTATION

October 14, 2016

KEY ISSUES

Context. The economy is still in its deepest recession in decades, partly the result of the failure of past policies. The recession has been aggravated by a political crisis, which had, until recently, paralyzed policymaking and further damaged confidence. President Rousseff was impeached for responsibility crimes related to fiscal practices on August 31, and the government that took office in May will remain in charge until January 1st, 2019. Markets have responded positively to the new government's reform agenda, bolstering asset prices and confidence and helping the country ride a positive wave of sentiment toward emerging economies. However, while some high-frequency indicators suggest the recession may be nearing its end, the implementation of much-needed reforms to durably restore policy credibility is subject to risks.

Outlook and Risks. Growth is projected to resume gradually, but will remain weak for a prolonged period. Uncertainty related to the political situation and the corruption probe at Petrobras is likely to diminish, contributing to a recovery in investment and a gradual return to positive quarterly growth in late 2016. Staff's financial conditions index loosened significantly following the government change, but these gains may understate the policy and economic challenges ahead. Brazil's macroeconomic prospects hinge on the new government's ability to successfully implement the ambitious structural fiscal reforms underpinning its medium term consolidation strategy. Failure to implement such reforms is the most immediate risk, and would jeopardize debt sustainability. In the baseline scenario, fiscal consolidation proceeds at a gradual pace, and gross debt only stabilizes past the end of the standard 5-year projection period.

Policy Recommendations. Focus should be on rebuilding credibility and regaining long-term fiscal sustainability through reforms that address unsustainable expenditure mandates, including in the social security system, reduce the fiscal deficit, and boost potential growth in the medium term. The government has put forward a strategy for fiscal consolidation based on keeping noninterest expenditure constant in real terms and pursuing social security reform; these reforms are welcome, but they will bear fruit over many years, and carry significant risks, including large public gross financing needs for a considerable period. Thus, there is merit in undertaking additional actions to achieve a more frontloaded fiscal consolidation. Monetary policy should remain tight until inflation expectations converge closer to the center of the tolerance band. Tangible progress on fiscal consolidation would expedite convergence of inflation and inflation expectations, allowing more room for monetary easing to support the recovery. The exchange rate should remain the main external adjustment variable and the gradual reduction in the stock of FX swaps should continue, consistent with market circumstances, while further intervention should be considered only to fend off market dysfunction. The resilience of the banking sector should be bolstered through enhanced monitoring and improved financial safety nets.

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

Discussions took place in Rio de Janeiro, São Paulo and Brasilia during September 12−26. The team comprised A. Cuevas (head), I. Karpowicz, T. Matheson (all WHD), I. Krznar (MCM), C. Mulas Granados (FAD), K. Moriyama (SPR), R. Berkhout (LEG) and F. Bornhorst (Resident Representative). The team met with representatives of business and labor, financial sector analysts, think-tanks, academics, and senior government and central bank officials. B. Saraiva and A. Lingoist (all OED) participated in the meetings. A. Werner (Director, WHD) and K. Srinivasan (Deputy Director, WHD) joined the concluding meetings. F. Barbosa (local Economist), C. Góes (Research Analyst), and Christian Saborowski (SPR) contributed to the report.

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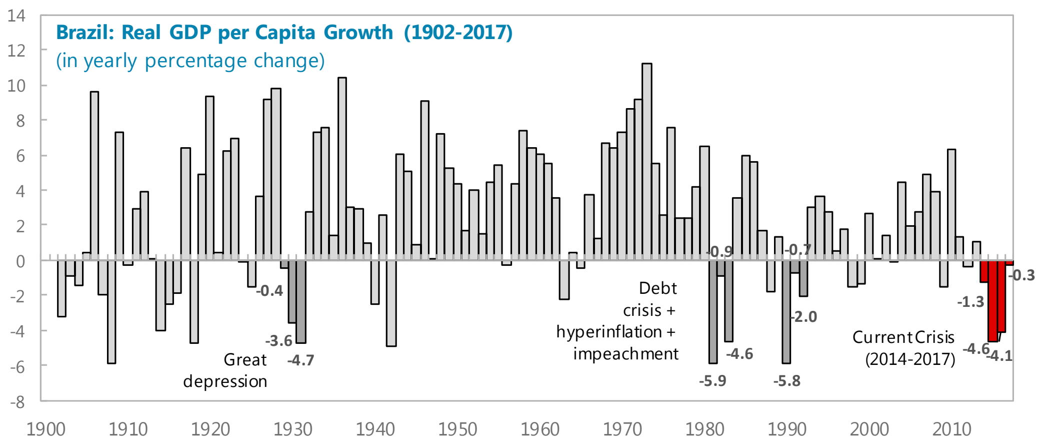
CONTEXT: DEEPEST RECESSION IN DECADES

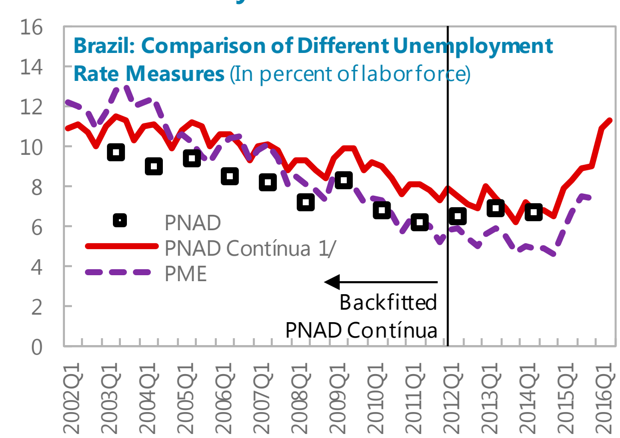
1. **Brazil is still in the grip of a deep recession.** Led by plummeting confidence that triggered sharp declines in investment and consumption, the contraction in output has been one of the largest in memory. Since the beginning of 2015, the unemployment rate has almost doubled and 2.7 million formal jobs have been lost; youth employment has been particularly hard hit (Box 1). Household income fell and inequality increased during the recession, bucking a decade-long trend.[1]



Sources: For 1902-1947. Haddad, C. "Crescimento do produto real no Brasil, 1900-1947", R. bras. Econ., 1975. For 1947-2015, IBGE. For 2016-17, IMF Staff forecasts. Population data from IBGE's decennial census with log-linear interpolation.

Box 1. Brazilian Unemployment in a Recessionary Environment

Labor market conditions deteriorated severely during the recession. Over the last eighteen months, unemployment rates reached levels last observed more than a decade ago. [1] Overall, unemployment rates jumped from 6.5 percent in 2014Q4 to 11.3 percent in 2016Q2.



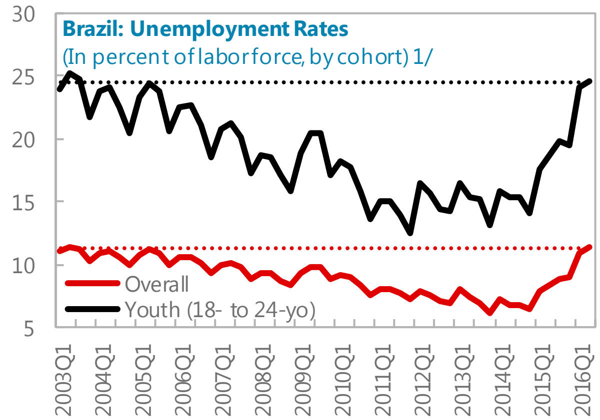
Sources: IBGE and IMF Staff estimates. 1/ From 2012Q1 onwards, series reflect official data from *PNAD Contínua*. Before that, data were backfitted using changes in interpolated annual *PNAD* data adjusted with seasonal factors from *PME*.

[1] The analysis of market trends is complicated by changes in the measurement of unemployment. In 2016, the Brazilian government adopted a new official unemployment rate series, improving coverage of the underlying survey and reliability of the numbers. The previous official statistic for monthly unemployment rates came from PME (Pesquisa Mensal de Empregos), which covered 145 cities and focused on six metro areas. The new one comes from a PNAD-Contínua (Pesquisa Nacional por Amostra de Domicílios Contínua), which has a national coverage of 3500 cities. For methodological details, see IBGE (2015). "Nota Técnica: Principais diferenças metodológicas entre as pesquisas PME, PNAD e PNAD Contínua". IMF Staff analysis uses structural trends in unemployment from a national-coverage survey (PNAD) and seasonal factors from a metro-area survey (PME) to extend the new series backwards. The overall patterns of the old and new series, both actual and extended, are consistent.

[1] Based on unofficial estimates produced by Fundação Getulio Vargas with data from official household surveys.

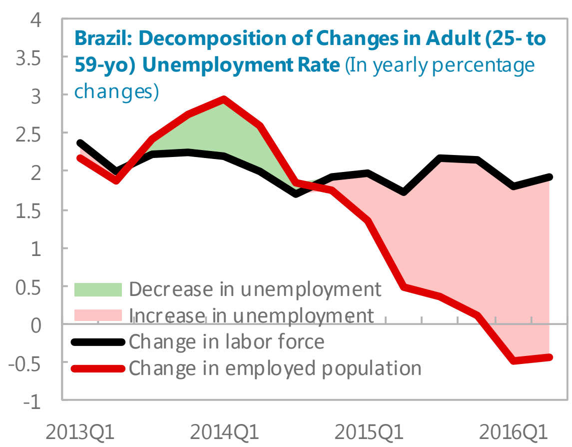
Box 1. Brazilian Unemployment in a Recessionary Environment (Continued)

The increase in the youth unemployment rate was even sharper, rendering nearly 1 in every 4 Brazilian youngsters (18 to 24 years old) unemployed. Youth unemployment climbed from 14.1 percent in 2014Q4 to 24.5 percent in 2016Q2. There are significant differences between adult and youth labor dynamics. For adults (25 to 59 years old), the labor force has been growing at a steady pace, but since the end of 2014 the decline in employment growth has led to an increase in adult unemployment. By contrast, since early 2015 the youth labor force, which had been declining, has been rising again while youth employment has collapsed, causing youth unemployment rates to increase by more than 10 percent.



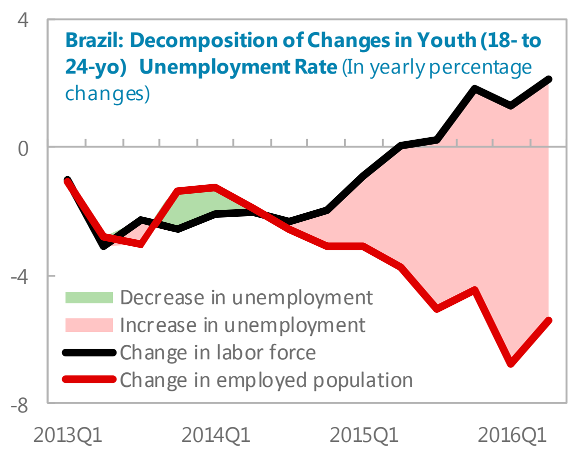
Brazil: Unemployment Rates
(In percent of labor force, by cohort) 1/

Sources: IBGE and IMF staff estimates. 1/ From 2012Q1 onwards, series reflect official data from *PNAD Contínua*. Before that, data were backfitted using changes in interpolated annual *PNAD* data adjusted with seasonal factors from *PME*.



Brazil: Decomposition of Changes in Adult (25- to 59-yo) Unemployment Rate (In yearly percentage changes)

Sources: IBGE and IMF Staff estimates.



Brazil: Decomposition of Changes in Youth (18- to 24-yo) Unemployment Rate (In yearly percentage changes)

Sources: IBGE and IMF Staff estimates.

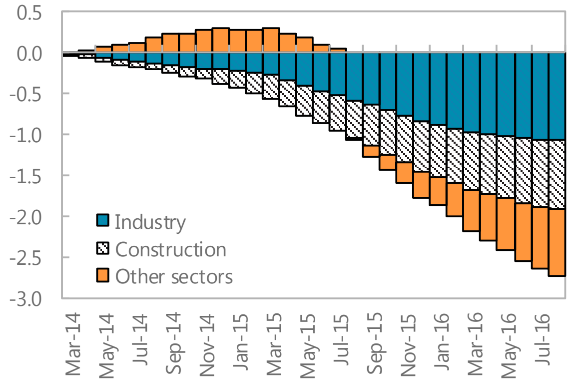
The effects of the recession on youth employment are exacerbated by a high minimum wage. In Brazil, youth employment is significantly more sensitive to increases in the minimum wage (holding the average wage constant) than adult unemployment.[2] Although real average earnings dropped by more than 4 percent year-over-year in 2016Q2, the real minimum wage increased, likely pricing younger workers out of the labor market.

Since the beginning of the recession the Brazilian economy lost 2.7 million formal jobs. Facing of decreasing industrial production, retail sales, and real wages, most sectors of the economy experienced negative job creation, but the bulk of the formal job destruction (about 1.8 million) has come from industry and construction.

[2] IMF, 2015, "Macroeconomic Implications of Minimum Wage Increases in Brazil," Selected Issues Paper.

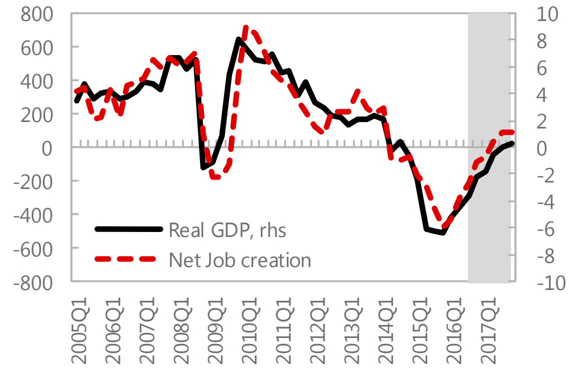
Box 1. Brazilian Unemployment in a Recessionary Environment (Concluded)

Brazil: Net Formal Job Creation Since the Recession Began (In million jobs)



Sources: Brazilian Ministry of Labor.

Brazil: Net Formal Job Creation and Economic Cycle (In thousand jobs and year-on-year percentage change)



Sources: IBGE, Ministry of Labor, and WEO.

Formal job destruction is likely to continue for a few more quarters. The Brazilian formal job market is historically highly correlated with the business cycle. This suggests that, under Staff's forecast for Real GDP, cumulative formal job destruction during the recession can ammount to as much as 3.1 million jobs between 2014Q1 and 2017Q4. [3]

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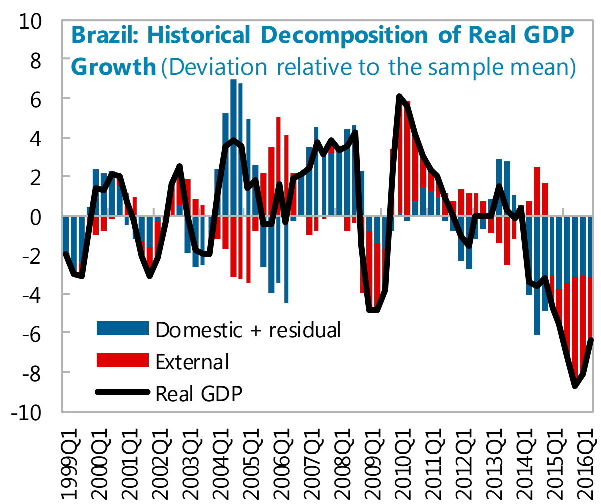
[3] We regress quarterly net formal job creation numbers (1999Q3–2016Q1) on year-on-year percent changes of real GDP (contemporaneous and two lags) and two lags of formal job creation. We then use IMF Staff forecasts to derive predicted values of future net job creation and cumulate the result from 2014Q1.

2. **Domestic factors largely explain the deterioration in growth, although terms of trade changes and weak global demand also played an important role.** Activity has contracted in 7 out of the 10 quarters through 2016Q2. The weakness reflects the confluence of long-standing domestic issues and other factors. In particular:



Source: Staff estimates. Historical decomposition from a SVAR model with four lags that includes a set of external variables US GDP, US CPI, US 10-year bond yield, Global EMBI Spread, Terms of Trade) and a set of domestic variables (CPI, policy rate, exchange rate, and GDP). All variables are specified in log changes and orthogonally identified in the order as listed above.

- **Investment** contracted severely, reflecting a sustained period of deteriorating competitiveness and tighter financial conditions (evidenced in a retreat in real private credit during 2015–16), rising unit labor costs, worsening terms of trade, and a reassessment of Brazil's future growth prospects (Box 2). The reassessment of prospects for export prices has caused drastic cuts in the expansion plans of the largest investor in the country, Petrobras (which is also dealing with the legacy of poor governance and high debt), and other large companies in the extractive sector. These firms have faced difficult financing conditions and have scaled down their traditional bond issuance abruptly, especially in 2015. The infrastructure concessions program has had difficulties making progress.

- **Consumption** contracted as well, owing to deteriorating labor market conditions and a tightening of credit conditions (see Selected Issues Paper).

- On the positive side, **net exports** have begun to support growth, reflecting both a demand-related contraction in imports and strong exports on the back of the depreciation of the real in 2015. Also, commodity export volumes expanded strongly owing to increases in capacity resulting from investment initiated during the boom years (e.g. in mining). However, the currency appreciation since March this year raises doubts about the momentum of net exports going forward.

- A sharp realignment of regulated prices and **monetary policy** tightening also represented a drag on growth in 2015.

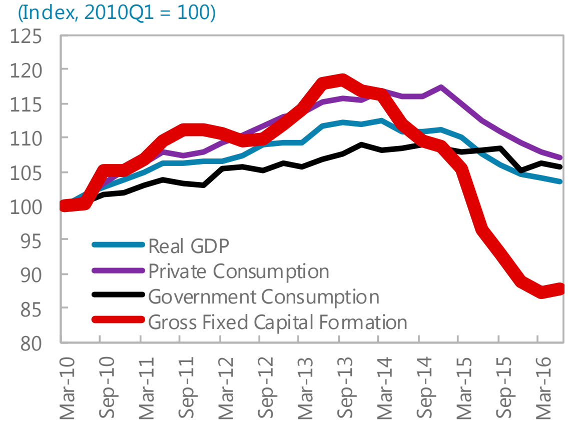
- **Fiscal policy** was broadly neutral over 2015–16 (not counting the reduction in quasi-fiscal activity) despite cuts in discretionary spending introduced in early 2015. The government started 2015 promising rising fiscal surpluses, and took early adjustment measures, such as the discontinuation of policy lending to BNDES, the modification of some excesses in entitlement programs, and the realignment of electricity tariffs, which staved off the expected flow of subsidies to the sector. However, momentum was not sustained, and policies, including those originating in Congress, were at times expansionary. Policies under the new government have shifted focus toward the pursuit of medium-term reforms and away from meeting tight primary balance objectives in the near term.

- Additional factors hampering growth related to uncertainty surrounding the **political situation** and the **corruption probe** at Petrobras. The corruption investigation has broadened to include more firms in the private sector and high-ranking politicians. Some of these effects are hard to disentangle from economic factors: for example, some large construction firms involved in corruption were banned from competing for new projects at Petrobras, but Petrobras has been cutting investment in any case in response to the new realities in the oil market.

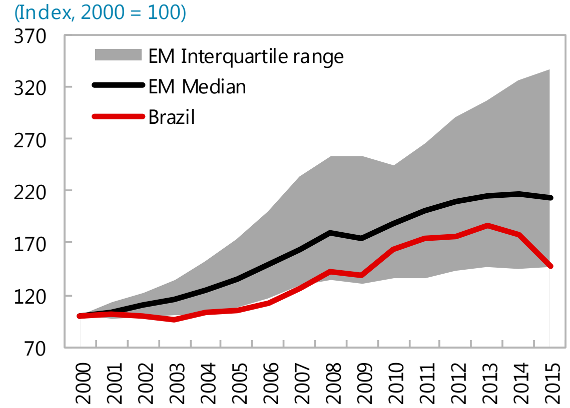
Box 2. Investment and Growth Expectations

Investment has been particularly hard hit recently, falling by around 25 percent since the beginning of 2014. As a result, fixed capital formation in Brazil has fallen further behind other emerging economies.

Brazil: National Accounts Components
(Index, 2010Q1 = 100)



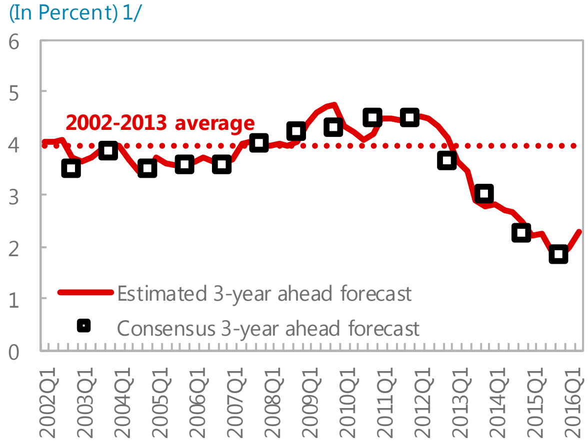
Brazil and EMs: Real Gross Fixed Capital Formation
(Index, 2000 = 100)



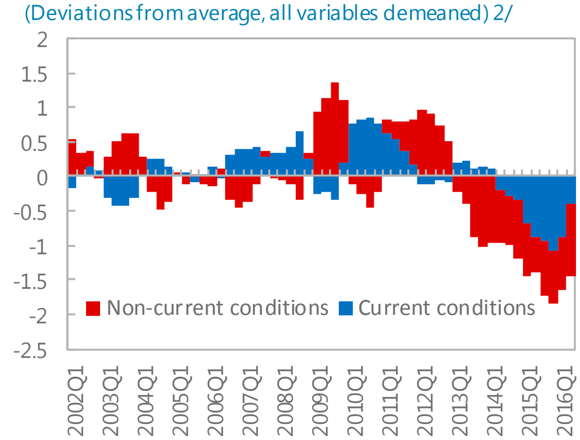
Sources: Haver Analytics and World Economic Outlook.

The recent worsening of the economic environment has contributed to a deterioration in medium-term growth expectations, but these have fallen by more, and for longer, than the recession can explain. Between 2002 and 2012, expectations of annual growth (3 years ahead) were broadly stable, averaging around 4 percent. Since then, growth expectations have deteriorated, falling to about 2 percent by end-2015. As of 2016Q2, the change in current conditions helps to explain roughly one quarter of the recent decrease in medium-term growth expectations, with the remainder of the decrease explained by other, 'non-current' factors. These factors in essence represent an *autonomous* reassessment of Brazil's growth potential over the medium term, above and beyond the impact of contemporaneous growth.

Brazil: Mid-Term Growth Expectations
(In Percent) 1/



Brazil: Decomposition of Mid-Term Growth Expectations
(Deviations from average, all variables demeaned) 2/



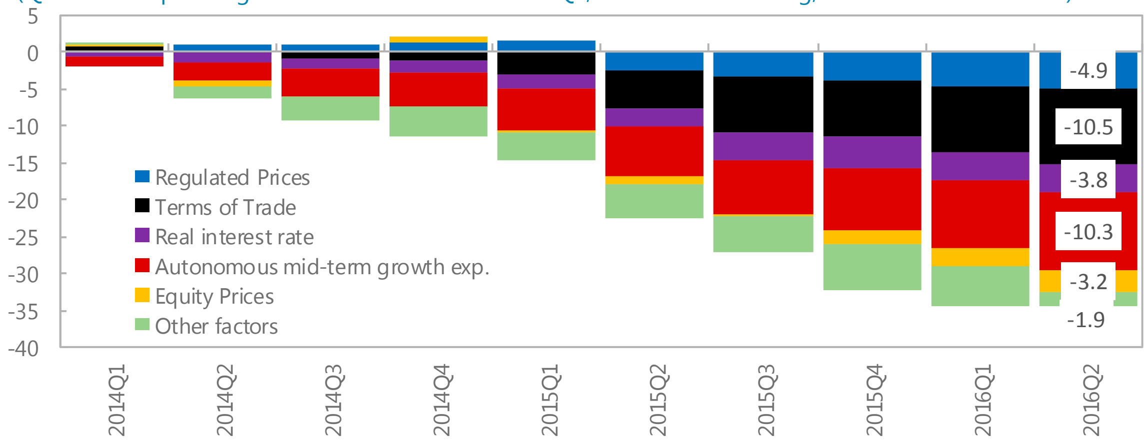
Sources: IMF Staff estimates and Central Bank of Brazil.
1/ Estimated through regressions of end-of-year forecasts on forecast horizons and their squares and then using time varying parameters to fit a continuous series
2/ Current conditions include contemporaneous changes in GDP, regulated prices, terms of trade, and equity prices.

Box 2. Investment and Growth Expectations (Concluded)

What explains the rapid drop in investment? Estimates suggest that developments hampering investment over this period include a rise in costs (chiefly a sharp increase in regulated prices, such as energy prices), falling terms of trade—impacting prospects for commodity exporters—and tighter financial conditions (through both higher real interest rates and lower equity prices).[1] The "autonomous" part of the deterioration in the medium-term outlook for growth has been a significant drag to investment over the past 2 years, reducing investment by more than 10 percent since beginning of 2014.

Brazil: Decomposition of Gross Fixed Capital Formation Growth

(Quarter-on-quarter growth acumulated since 2014Q1, deviations from avg, all variables demeaned)



Source: IMF Staff estimates.

What does this imply for investment going forward? The results suggest that *stabilization* of regulated-price inflation, the terms of trade, equity prices, and real interest rates should improve both investment growth and growth expectations. In particular, the large, necessary, tariff increases of 2015 corrected past policy mistakes, and need not be repeated; subsequent increases can be more moderate and thus are not expected to represent large headwinds. Interest rates are expected to be eased as disinflation allows, also removing another important headwind. While stabilization of these factors is expected in the short term, reducing some of the drag on investment, the prospect of a return to investment growth crucially depends on an alleviation of other sources of weakness, such as a reduction in uncertainty related to the political situation, improvements in policy credibility, and addressing impediments to potential output. The analysis also suggests that if medium-term growth expectations remain subdued, the recovery in investment may be incomplete.

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[1] Results are from the joint estimation of two equations. The first regresses mid-term (3-years ahead) growth expectations on contemporaneous yearly percent changes in GDP, regulated prices, terms of trade, and equity prices. The second regresses quarterly changes in real gross fixed capital formation on lagged quarterly percent changes of regulated prices, terms of trade, real interest rates, equity prices and on the lagged residual of the first equation (i.e., the part of mid-term growth expectations which is orthogonal to current conditions). To account for correlation of residuals, Seemingly Unrelated Regressions is used, estimated with a two-step Generalized Least Squares method.

3. **Tentative signs point to the end of recession.** The rate of output contraction has slowed and the economy appears to have regained some footing, with industrial production and business confidence improving since early 2016. Indicators related to international trade and the labor market are also showing signs of stabilization, and staff's financial conditions index (FCI), a leading indicator of real activity, has improved significantly since end-February 2016 (Figure 5).

4. **Inflation is normalizing slowly.** The policy rate has been on hold for more than a year now. To prevent second round effects from the large increases in regulated prices and exchange rate depreciation, the monetary policy rate (SELIC) was hiked by 250 basis points to its current level of 14.25 percent between January 2015 and July 2015. The interest rate on subsidized loans (known as "TJLP") was increased by 250 basis points to 7.5 percent between late 2014 and early 2016. Consistent with previous Staff advice, the central bank's inflation tolerance range was reduced from 2.5 percent to 6.5 percent to 3 percent to 6 percent for 2017. However, headline and core inflation have been above the central target and around the upper limit of the central bank's tolerance range for several years. In 2015, inflation spiked to 10.7 percent (e.o.p.), largely because of much needed relative-price adjustments (Box 3). But in 2016, some price increases have begun to moderate and 12-month inflation has fallen back to single digits. Yet, disinflation proceeded slowly due to inflation expectations that were higher than the target, and rising food prices owing in part to drought in the Northeast (Figure 2).

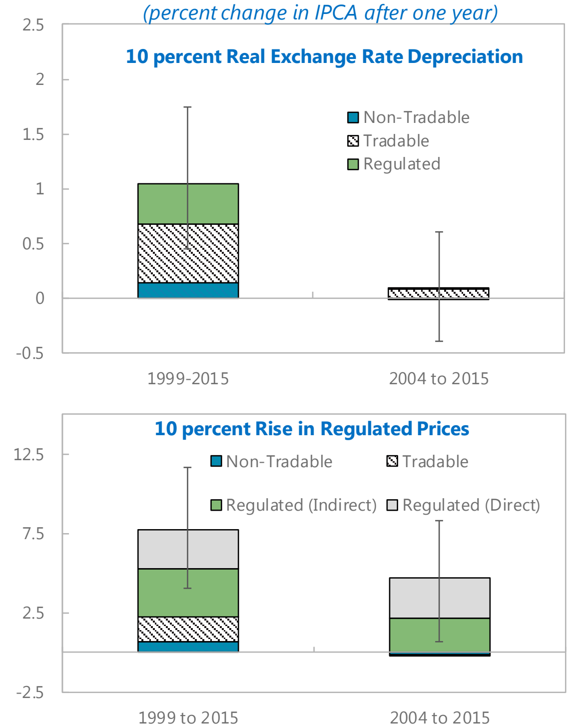
Box 3. Relative Price Realignment

Two sharp relative-price realignments occurred in 2015, contributing to a spike in inflation. Headline inflation rose to 10.7 in December 2015, more than 6 percent above the center of the central bank's tolerance range. Regulated prices were a key contributor, rising by almost 18 percent over the year. Over this time, the exchange rate also depreciated by around 20 percent in real effective terms, putting further pressure on tradables' prices.

While boosting inflation in the short term, adjustments were necessary. In the several years prior to 2015, regulated prices had been contained by government policy, creating distortions, and contributing to rising inflation expectations. In the electricity sector, a policy to subsidize electricity prices was introduced in 2012, increasing demand despite early signs of drought, and driving companies to borrow to cover higher generation costs. In an attempt to protect consumers from rising international prices, Petrobras was directed to sell fuel at a loss from 2012 to early 2014, contributing to rising debt levels at the company and a deterioration in its share price. The recent increases in regulated prices have alleviated these distortions. Likewise, the depreciation of the currency has moved it towards levels more consistent with fundamentals, improving Brazil's competitiveness.

Impact of Price Changes on Headline Inflation\1

(percent change in IPCA after one year)

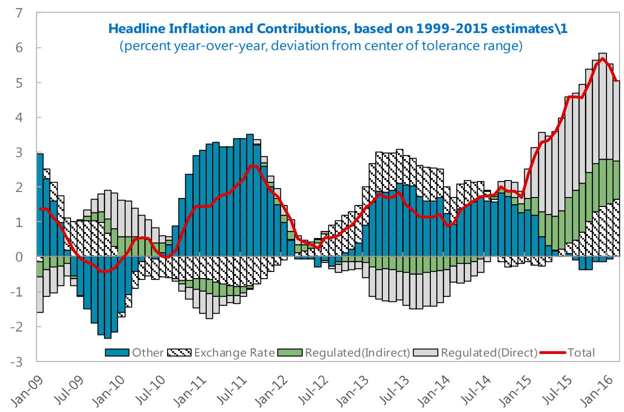


Source: Staff Estimates.

\1 Estimated responses. 90 percent confidence bands. IPCA-weighted contributions to headline IPCA inflation. The direct regulated effect is the effect of the initial 10 percent rise in regulated prices; the indirect effect captures all subsequent changes in regulated prices due to second-round effects and inertia.

Box 3. Relative Price Realignment (Concluded)

The impact on inflation has been large and broad based.[1] Regulated prices currently have a significant weight in Brazil's CPI (around 25 percent of the basket), making the direct effect of regulated-price increases on inflation particularly large; the impact of an exchange rate depreciation is much smaller in comparison, but still significant. Many regulated goods and services are direct inputs into production (gasoline and electricity, e.g.), which leads to second-round effects that can broaden the impact of any price changes. Moreover, price- and wage-indexation perpetuate price shocks and spread their impact across the economy.



Source: Staff Estimates.
\1 Historical shock decompostion from a VAR estimated over the period 1999-2015. Direct regulated-price contributions are the IPCA-weighted contributions from regulated prices. Indirect contributions capture all other effects from regulated-price changes.

[1] Estimates based on vector-autoregressive models estimated over two different monthly sample periods. The VARs include the output gap (HP-filtered BCB activity index) and monthly percent changes of: the real effective exchange rate; wholesale prices; regulated prices (IPCA); non-regulated prices (IPCA); and tradable prices (IPCA). Headline IPCA inflation is derived by weighting together each of the three subcomponents of the IPCA index. To identify the shocks, regulated-price inflation is assumed to be the most exogenous variable and the real exchange rate is assumed to be the most endogenous.

5. **Fiscal policy outcomes have been disappointing.** In 2015 the non-financial public sector primary *deficit* reached 1.9 percent of GDP (a far cry from the original target of a *surplus* of 1.2 percent of GDP), and the overall deficit was 10.4 percent of GDP. The key driver was a fall of 4.8 percent in real revenue collection,[2] which was partially offset by a decline in real expenditures. Interest payments also increased substantially, including as a result of the FX swap program, which had losses of 1.5 percent of GDP. The targets for the 2016 primary balance were repeatedly revised, with a final large downward revision introduced mid-year. The new government reduced the 2016 federal primary balance target to -170 billion *reais*, or some -2.7 percent of GDP, reflecting the growth in items indexed to past inflation and the minimum wage and continuing revenue weakness. As of September 2016, meeting this target appeared feasible, but the outcome may depend on the yield of the repatriation tax. The strengthening of the currency has generated profits on the FX swaps in 2016, helping avoid an increase in the overall deficit. Financing the large deficits and falling maturities became significantly more expensive throughout 2015, with the rise in borrowing costs starting ahead of the loss of investment grade which took place between September and December 2015. But no difficulties arose in the placement of new debt, in part owing to the favorable composition of public debt by instrument and creditor (see Debt Sustainability Analysis (DSA) Annex and the Balance Sheet Analysis (BSA) matrix in Appendix III). Borrowing costs have fallen significantly in the course of 2016 with the change in government and the prospects of fiscal reforms. For

[2] The settlement of irregular obligations to public banks carried over from 2014 (the so-called "pedaladas") contributed as well. The incurrence of these irregular obligations was one of the reasons for the impeachment of President Rousseff.

example, the yield on the 5-year bond fell from 16.5 percent at end-December 2015 to 11.7 percent at end-September 2016.

6. **Many subnational governments have been crippled by a confluence of the recession and unsustainable expenditure mandates.** The recession has caused states' revenues from all sources to fall sharply in 2015–16, making financing of their rising mandatory spending, chiefly on salaries and retirement pensions, increasingly difficult (see Selected Issues Paper). Many states have raised tax rates and sold assets to cope with fiscal stress. Since late 2015, several states have been paying salaries late and/or have been using third-party funds held in escrow to make ends meet.[3] Rio de Janeiro defaulted on federally guaranteed loans from IFIs in 2016, and obtained emergency federal transfers that helped it to host the Olympics (Box 4). The dire situation of the states is understated by fiscal statistics, which are compiled on a cash-basis (Table 3) and do not show all extra-budgetary operations and new arrears, and are subject to classification problems (the significance of data problems is illustrated by S&P's recent decision to stop issuing ratings for Rio de Janeiro's debt owing to data gaps). To provide states with relief, the federal government (the states' main creditor) agreed to a temporary standstill in the servicing of federal loans, and many states are lobbying the federal government for additional support.

Box 4. Fiscal Crisis in Rio de Janeiro

The state of Rio de Janeiro epitomizes the subnational fiscal crisis in Brazil. In July 2016, Rio de Janeiro declared a "state of calamity" over public finances and received a R$2.9 billion transfer from the federal government to guarantee the payment of security forces during the Olympic Games. This episode put the state on the spotlight and increased the media attention towards a subnational fiscal crisis that affects some of the largest states in the country. At the end of 2015, Rio Grande do Sul had already breached the debt limit established by the Fiscal Responsibility Law (at 200 percent of net current revenues) and Rio de Janeiro and Minas Gerais were rapidly approaching the limit. A number of states have been able to avert such rapid deterioration of public finances and find themselves in better fiscal shape.

Rio de Janeiro has been running arrears due to cash shortages. In 2015, faced with falling revenues and a federally-imposed tight credit constraint, Rio de Janeiro prioritized its payroll. Like other states, it obtained cash-flow relief from the suspension of debt service payments to the Federal government in 2016, but this was not enough. Cash shortages led Rio to increase payment deferrals and *Despesas de Exercicios Anteriores* (DEAs), which are exceptional expenditures not included in the budget and postponed to the following year. These payment delays included electricity, water, gas, phone, security and cleaning services. In 2015, 24 states accumulated R$15.4 billion (0.3 percent of Brazil's GDP) in DEAs (an increase of 44 percent from 2014), and Rio de Janeiro was the state with the largest increase (185 percent). Rio de Janeiro also failed to service debt to international financial institutions, triggering federal guarantees. By August 2016, Rio de Janeiro accumulated a 4-month delay in transferring to commercial banks the amounts withheld from state employees' paychecks to service their personal loans. In response, banks stopped payroll loans to state government employees in Rio de Janeiro.

[3] These are the "judicial deposits" constituted by private parties with disputes against the states (or against other private parties) awaiting resolution by the courts. The temporary use of these resources has been allowed by law, but the funds will need to be made up.

Box 4. Fiscal Crisis in Rio de Janeiro (Concluded)

The fiscal crisis in Rio de Janeiro stems largely from structural fiscal imbalances. The decline in revenues in Rio de Janeiro has both a cyclical component (the recession reduced tax collection, especially from ICMS) and a structural component (the oil price slump which dramatically reduced revenues from royalties and accentuated recessionary conditions in Rio de Janeiro, where Petrobras is headquartered and was building a large petrochemical complex, now cancelled). The increase in expenditures is also structural in nature and has been building up over a long period of time. In 2015, payroll expenditures (R$17 billion) and pensions for inactive workers and retirees (R$11 billion) represented 32 and 20 percent of total primary expenditures respectively. Between 2009 and 2015 these two expenditures increased 70 percent in real terms, driven largely by salary increases, putting Rio de Janeiro in the leading position in this spending category (see Selected Issues Paper). While its economy was growing and oil was booming Rio de Janeiro managed to keep up with this structural increase in spending, but as soon as the downturn hit the region, the decline in revenue made it very hard to finance its spending: in 2016 monthly payments of both salaries and pensions consumed 90 percent of monthly revenues.

Structural fiscal reforms are required to solve the fiscal crisis. Despite the savings from the federal debt rescheduling program (equivalent to R$2.5 billion) and a large number of ad-hoc measures, the state still faces a gap in its finances of R$16 billion in 2016 (2.4 percent of the state's GDP and ¼ percent of Brazil's GDP). Structural fiscal reforms are urgently needed. The subnational fiscal crisis requires a reform of public employment rules and a pension reform at the national level to alleviate the pressure coming from growing mandatory expenditures. In Rio de Janeiro and possibly some other states, new sources of recurrent revenue also need to be considered.

7. **Financial markets have been volatile.** Major market movements through the last 12–18 months can often be traced to political and policy shocks, such as the successive loosening of fiscal targets and the impeachment of President Rousseff. The *real* depreciated by around 50 percent against the U.S. dollar over the year to December 2015, and by around 20 percent in real effective terms. Over the same period, stock prices lost 10 percent of their value and domestic government bond yields rose by more than 300 basis points. Over the course of 2016, these indicators have regained lost ground amid expectations of improved economic policies and growth prospects, and a more generalized reduction in risk aversion among global investors. This has been reflected in a sharp reversal in the FCI in 2016Q2, and in renewed bond placements abroad by corporates.

8. **The central bank has intervened in the foreign exchange market less frequently than in the past.** Intervention in 2015 was appropriately limited to containing short-term excessive volatility, broadly symmetric, and continued to rely on the use of FX swaps and, to a lesser extent, FX repos. Taking advantage of the market rally that began in March 2016, the central bank has lowered the net notional value of outstanding FX swaps to about US$32 billion (from a high of about US$110 billion) by issuing reverse swaps and not rolling over maturing swaps.

9. **The external position has improved (Appendix II).** The current account deficit narrowed from 4.3 percent of GDP in 2014 to 3.3 percent in 2015, but Brazil's external position remained moderately weaker than the level consistent with fundamentals according to the External Balance Assessment (EBA). Due to the depreciation in the second half of 2015, the real effective exchange rate was only slightly overvalued at the beginning of 2016 but given the currency appreciation this

year, earlier competitiveness gains have been eroded. The real depreciation in 2015 was reflected largely in improvements in the current account in 2016 owing to lagged effects on exports (Appendix III).

10. **International reserves remain a source of strength and capital flows are stable, although their composition has changed.** At US$365 billion, reserves are above the IMF's adequacy metric. Over 2015-2016, equity liability flows (both direct investment and portfolio accounts) remained strong as foreign investors pursued private equity deals made attractive by the weaker real. But debt liability flows fell sharply, especially in 2015, reflecting the hardening of market access for Petrobras and other large corporations. Net direct investment fully financed the current account deficit in both 2015 and 2016. After rising sharply over 2014, the share of intercompany loans in direct investment liability flows fell to about 25 percent in 2015 as proceeds from overseas borrowing by foreign incorporated subsidiaries of Brazilian parent companies, notably Petrobras, dropped sharply (Appendix III). Net portfolio debt liabilities fell to close to zero in 2015 from 1 percent of GDP in previous years. So far in 2016, firms have enjoyed greater market access relative to 2015 and FDI has remained strong, including as a result of intercompany loans by foreign companies to their Brazilian subsidiaries, but portfolio flows have remained subdued.

11. **Brazil is in the downturn phase of the financial cycle, which warrants enhanced monitoring**. Corporates are significantly bank dependent, and the expansion of bank credit for many years contributed to rising leveraging among firms (see Appendix III, where balance sheet matrices for 2007 and 2014 are analyzed). The credit cycle has turned, however, as banks (increasingly including public banks) have been slowing credit supply while leveraged corporations and households face unfavorable income prospects. In fact, contracting domestic demand and a negative output gap have been reflected in a reduction in demand for credit, including for subsidized lending extended by BNDES. Facing withdrawals of savings deposits in 2015, Caixa Economica reduced the supply of mortgages by tightening LTV requirements. The LTVs were reversed in 2016 as the bank compensated for lower deposits with alternative, albeit more expensive, funding sources.[4] Nominal credit growth was negative (-0.6 percent year over year) in August 2016, for the first time since 2002, reflecting a decline in demand, tighter underwriting standards, and the authorities' decision to reduce the rate of expansion of public banks. Until about Q1-2016, financial conditions (measured by the FCI) had been tightening amid higher foreign funding costs, monetary policy tightening and the depreciation of the real (see Selected Issues Paper).[5] Since March, however, the FCI reversed course with the prospects of government change.

12. **Macro-prudential policies have been used appropriately**. The central bank relaxed reserve requirements on deposits for small- and medium-sized banks in an effort to support

[4] These changes were corporate decisions by Caixa, and thus are not considered macro-prudential policy actions. Caixa is the dominant player in the residential mortgage market.

[5] Financial, credit, and business cycles are estimated using a variety of commonly-used statistical methods and a semi-structural model of the Brazilian economy (see Selected Issues Paper). In the model-based approach financial, credit, and business cycles are jointly estimated and can be projected in a consistent way. Staff's baseline output and credit forecasts benefit from this approach.

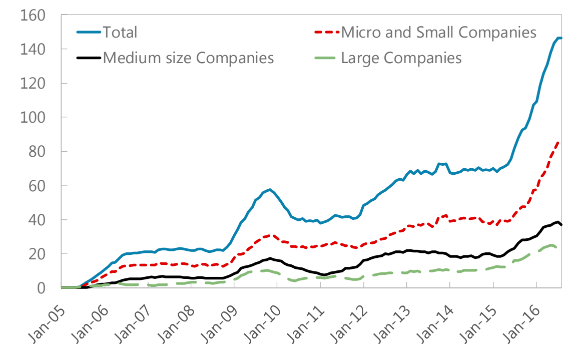
liquidity and bolster certain types of loan (housing, agricultural and infrastructure). This move was consistent with macro-prudential principles, as it helped soften a declining credit cycle and alleviate liquidity risks, and reversed the previous tightening of reserve requirements.

13. **After deteriorating in 2015, the health of the banking sector improved in the first half of 2016 as shocks to funding dissipated.** In particular:

- *Solvency*. The system-wide capital ratios fell in 2015, but have since increased and are well above the regulatory minima. However, capital ratios of public banks, which are much lower than those of private banks, have continued to drop mainly due to higher Basel III deductions from capital. In an effort to bolster capital ratios, the two largest public banks have already cut dividends and are planning to sell assets, including by issuing initial public offerings of part of their operations. The decrease in capital in 2015 largely reflects higher unrealized losses on fixed income securities, an expansion of balance sheets from exchange rate depreciation, and a significant increase in deferred tax assets following an increase in the tax rate. The increase in capital ratios of private banks in 2016 was mainly driven by reduction of balance sheets (also due to exchange rate appreciation) and higher unrealized gains on fixed income securities as government yields plunged following the government change.
- *Liquidity*. Liquidity risk increased in 2015 due to withdrawals of funding, especially saving deposits. This partly reflects a search for yield through the purchase of mutual funds shares and banks' deposits-like instruments. However, the overall funding profile of the system remains strong and improved in the first half of 2016 as banks increased holdings of liquid assets in an environment of low credit supply. External funding exposures are low (at around 12 percent of total funding) and foreign exchange risks are largely hedged.
- *Profitability*. While banks' net income after taxes increased in 2015 reflecting higher tax credits and higher deferred tax assets following the tax change, net income before taxes dropped significantly in 2015, owing to a spike in provisions for loan losses and higher funding costs following the sovereign downgrade. On the other hand, net incomes after taxes fell in the first half of 2016 pushing profitability indicators below 2015 levels. However, profits before taxes surged significantly during the first half of 2016 primarily due to higher spreads as a result of higher credit risk. The poor performance of the stocks, especially Petrobras shares, has impacted BNDES' equity portfolio with the damage being recognized in its mid-2016 income statement.
- *Asset quality*. Banks' non-performing loans (NPLs) have gradually increased over 2015 and reached 3.6 percent of total loans in July 2016 (4.1 percent if restructured loans are added to the stock of NPLs). To further limit increases in NPLs, banks have been renegotiating the terms of some loans and writing-off delinquent loans. Banks have remained well provisioned with loan loss reserves covering 150 percent of NPLs.

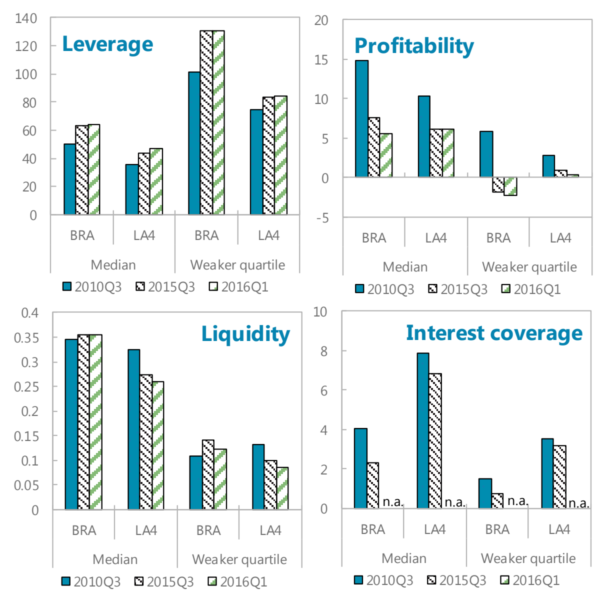
- **Nonfinancial corporations are vulnerable.** Brazilian firms stand out in the region for their high leverage and interest servicing, and for more pronounced declines in profitability. While the depreciation of the *real* increased leverage, the impact on profitability and capital has so far been mitigated by widespread hedging and the recent appreciation of the real. The corruption scandal at Petrobras and credit ratings downgrades hampered access to foreign credit for many Brazilian corporates, motivating some large firms, including Petrobras, to develop deleveraging strategies in the last 12-18 months. While market access has improved in 2016 for some firms, many corporations remain under pressure, as revealed, for example, by the rise in bankruptcy protection applications and the rising share of larger firms in these processes. In fact, one of Brazil's largest telecommunications companies, Oi, filed for bankruptcy protection on US$19 billion of debt in June, contributing to a spike in provisioning.[6]

Brazil: Bankruptcy Protection Applications Index
(12-month rolling average; higher means more applications)



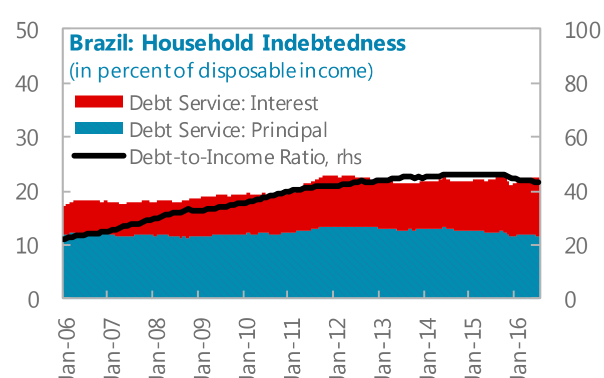
Sources: Serasa.

Nonfinancial Corporates: Brazil and LA4
(Chile, Colombia, Mexico, and Peru)



Sources: Bloomberg and IMF Staff calculations. Approximately 250 firms for Brazil and 350 firms for LA4. Leverage: total debt to total equity (percent); profitability: return on equity (percent, 4-quarter average); interest coverage: EBITDA/total interest (ratio, 4-quarter average); liquidity: cash ratio (cash and equivalents over current liabilities), 4-quarter average).

14. **Household debt has begun to edge down, and service costs have stabilized at a high level.** Household debt-to-disposable income has fallen over the course of 2016 reflecting both demand and supply factors; the share of mortgage debt has increased to one third, but underwriting standards, including mortgage LTVs, have tightened. The household debt service-to-income ratio has been broadly stable at 22 percent for more than a year, with rising interest costs largely offsetting lower principal payments as a share of income.



Source: Central Bank of Brazil.

[6] The Portuguese term is *recuperacão judicial* which could also be translated as "court-approved reorganization."

15. **The change in government has brought a change in the design and orientation of several key policies.**

- The government has sent to Congress a constitutional amendment limiting the growth in federal noninterest spending to the rate of consumer price inflation of the previous year for the next 20 years, with an opportunity for a revision in the tenth year.[7] This reform seeks to overcome the effect of political fragmentation on Brazil's budgetary process by imposing a hard budget constraint at the constitutional level.[8] Also, the government has accepted a large primary deficit in 2016, and proposed a primary balance target for 2017 in line with the operation of the expenditure ceiling. The proposed 2017 budget also includes some ½ percent of GDP in one-off revenues from the auctioning of concessions and asset sales. Under these policies, there would still be significant real spending growth in 2017 (if inflation falls, as expected); the harder part of the adjustment would start in 2018, once inflation has broadly stabilized, preventing further real growth in spending. The government has also announced a reform of the social security system, much needed in its own right and also necessary to make the expenditure limit viable.

- Against the background of a marked drop in interest rate futures, the Central Bank has made a return of inflation to the central target by end-2017 a priority, and indicated that an easing of policies can be considered once visible progress in fiscal reforms has been secured. The BCB has also stepped up its communication practices and the new government announced the intention to grant the central bank operational autonomy through a constitutional amendment that provides immunity to board members from lower-court prosecution, while removing the ministerial status that is now conferred on the BCB governor.

- The infrastructure concessions program has had difficulties gaining momentum in an environment marked by uncertainty, low growth, and tight financing conditions, especially for large construction companies implicated in the Petrobras corruption scandal. However, a newly announced institutional framework and forthcoming changes in regulatory agencies may stimulate a pick-up in private sector participation (see Appendix III).

16. **While recent corruption investigations signal a welcome move towards greater transparency, they have also added to political and economic uncertainty.** The authorities have been implementing strong mechanisms to oversee public expenditure and recover losses to the state due to budgetary irregularities. This has been notably achieved through the work of the Federal Court of Accounts, the Federal Public Prosecutors Office, the Financial Intelligence Unit and the ENCCLA[9]. Steps taken to strengthen the anti-corruption (AC) and anti-money laundering (AML) frameworks, such as the revisions to the AML Law in 2012, and the 2013 AC law have provided additional tools to investigate and prosecute corruption. Nevertheless, high-level enforcement

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[7] The reform, with minor changes, passed its first vote in the lower house on October 10. It still needs another vote in that house and two votes in the Senate.

[8] See Appendix III for a general discussion of political fragmentation and its interaction with government finance.

[9] Estratégia Nacional de Combate à Corrupção e à Lavagem de Dinheiro (ENCCLA).

actions have added uncertainty to the existing negative impact that large-scale corruption has on investment, growth, and political stability.

OUTLOOK AND RISKS

A. Returning to Growth

17. **Activity is expected to start to recover gradually, but will remain weak for a prolonged period.** The near-term outlook is for a gradual recovery to start in the second half of 2016, assuming that political uncertainty diminishes and that other downward economic shocks (such as the large administered-price adjustments of 2015 and the major investment cuts by Petrobras) run their course. A sharper recovery is difficult because of the excess leverage and slack among firms, and weakened income and balance sheets of households. Monetary policy is expected to remain relatively tight and credit growth is projected to fall further as a share of GDP in 2017. While deteriorating economic conditions are expected to affect the quality of banks' assets, the largest banks have enough capital to absorb possible losses (see Selected Issues Paper). The baseline assumes that the proposed fiscal target for 2016 will be met, and that the authorities' proposed structural reforms on the public expenditure side will be approved and implemented. Over the medium term, inflation is expected to slowly converge toward the target midpoint as output growth reaches its potential rate of 2 percent (which does not assume the adoption of any major structural reforms on the supply side beyond the implementation of the authorities' infrastructure concession program); the current account deficit is expected to stabilize around 2 percent of GDP. Credit is expected to recover broadly in line with activity, albeit with a lag (the credit to GDP ratio will begin to edge up in 2018).[10] In this context, BNDES is expected to rely on its own balance sheet and to prioritize lending for infrastructure. The health of the banking sector is expected to improve as the economy picks up and funding costs decline. Government spending is assumed to continue growing in real terms in the near term, albeit at reduced rates, consistent with the gradual tightening implicit in the expenditure ceiling. The gradual recovery of growth will have positive spillovers on other economies in the region, notably those of Brazil's Mercosur partners.

Scenario: Baseline

	2016	2017	2018	2019	2020	2021
Growth, %	-3.3	0.5	1.5	2.0	2.0	2.0
Inflation (GDP deflator), %	8.0	6.1	5.3	5.1	5.0	5.0
Primary Balance, % GDP	-2.7	-2.3	-1.3	-0.5	0.1	0.8
Gross Debt, % GDP	78.4	82.9	85.7	88.2	90.9	93.5

[10] As noted in the Selected Issues Paper, output has a stronger impact on credit than credit has on output.

18. **Downside risks continue to dominate the outlook, but upside risks are emerging (Appendix I).**

- A key domestic risk is that the new government fails to deliver on its fiscal consolidation strategy and provide a durable boost to confidence. Re-intensification of political uncertainties (e.g., as a result of developments in the corruption probe) could also exacerbate downside risks resulting in a "sudden stop" of capital inflows, a sharp asset price adjustment and widening of credit spreads, and a defensive tightening of the monetary policy stance. In this *financial stress* scenario, higher risk premia would also trigger losses on fixed income securities for banks, while a "double dip" recession could further impact private agents with weakened balance sheets, resulting in larger loan losses and capital shortfalls for some banks; this would further dampen credit supply and economic activity, and damage the fiscal position with recapitalization costs and the realization of deferred tax credits (see Selected Issues Paper).[11] Petrobras' balance sheet may be subject to risks from unfunded contingent liabilities, as is the case for other SOEs, (Eletrobras and Caixa Economica).

- External downside risks relate to a protracted period of slower growth in advanced and emerging economies, especially China, further declines in export commodity prices, and tighter financial conditions.

- Upside risks have also emerged. Recent policy pronouncements have boosted confidence and asset prices which, if sustained, could foster a sharper turnaround in investment and growth. Faster-than-envisaged progress in the approval of the authority's fiscal reform agenda could spark a more vigorous recovery in sentiment, boosting foreign interest in Brazil in the context of an external environment marked by low interest rates. This would result in stronger investment and growth in Brazil, although a possible surge in capital flows may pose challenges, notably for sectors that have benefitted from the recent currency depreciation.

19. **The authorities have been responsive to some of Staff's past recommendations.** In particular, monetary policy was tightened in 2015, and the National Monetary Council narrowed the inflation tolerance range from 4.5 percent +/- 2 percent to 4.5 percent +/- 1.5 percent for 2017, and raised the long-term lending rate (TJLP) from 5.5 to 7.5 percent over the past year and a half. The net FX swaps position was also lowered significantly over the past year, in line with Staff's advice. The ongoing push for reforms that address structural sources of fiscal pressure, including the announced plans of the government to pursue social security reform, are also consistent with past advice from Staff.

[11] These results, obtained independently by Staff, are broadly consistent with the results of the central bank's own stress test published in their April and September 2016 Financial Stability Reports. In the SIP it is also noted that a sharp slowdown in credit can be harmful to growth. Such a situation could be provoked, for example, by a greater need to strengthen balance sheets as buffers reach critical levels in a financial stress scenario.

POLICY DISCUSSIONS

Policymaking in recent years has failed to address long-standing structural problems and proved counterproductive, contributing to an erosion of policy credibility and worsening growth prospects. Greater progress at addressing medium-term structural issues—particularly pertaining to the fiscal framework, at both national and subnational levels—would go a long way toward restoring policy credibility and boosting confidence, necessary for the return to strong, inclusive, and sustainable growth. Early implementation of key measures would also help moderate inflation expectations and facilitate an easing of monetary policy. Given the current environment and risks, the resilience of the banking sector should be bolstered and efforts to boost infrastructure investment scaled up.

A. Restoring Credibility Through Fiscal Sustainability

20. **The government's focus on controlling fiscal spending growth is an imperative and welcome.** Unsustainable fiscal dynamics are being driven by unfunded and increasingly onerous mandates on the expenditure side, which increase government financing needs, raise borrowing costs for all agents in the economy, and slow down economic growth, contributing, in turn, to a further worsening of the public debt dynamics. The approval and steadfast implementation of the spending cap could be a game changer—it would help improve the long term trajectory of public spending and permit the stabilization and eventual reduction of public debt as a share of GDP. In addition to the spending cap, the draft budget law before Congress contains a series of one-off revenues arising from the granting of concessions and the sale of some assets. Together with revenue projections based on the authorities' macroeconomic assumptions, this yields a primary balance target (floor) of -2.1 percent of GDP for 2017.

21. **Credible implementation of the spending cap, and more generally restoring sustainability of the public sector finances, requires addressing the structural drivers of public expenditure growth and increasing flexibility in the allocation of public monies.** The main areas for reform include:

- *Social security.* The success of the expenditure rule would depend on reforming the social security system—which is necessary in its own right, and would be a priority even in the absence of a spending cap. Pension and other benefits represent nearly one half of federal noninterest spending and at least 13 percent of states' noninterest spending. These outlays have strong real growth momentum as a result of demographic trends and benefit indexation rules (see Selected Issues Paper). The reform of the pension system should be comprehensive, bearing upon the rules governing retirement age, replacement rates at retirement, the growth of benefits post-retirement, and the duplication of benefits. The retirement benefits system has been providing support for persons who should instead be covered by targeted social assistance programs; these programs should be ready to step in as the retirement system is reformed. Bringing civil servants' pension schemes closer to that of the private sector would be fiscally prudent and also fair and equitable.

- *Ending revenue earmarking.* Revenue earmarking needs to be eliminated to create the flexibility in the allocation of budgetary resources the expenditure cap will demand. In this context, an important feature of the expenditure cap legislation is that it aims to remove the obligation to dedicate an increasing share of net federal revenues to spending in education and health. This provision will need to be supplemented with measures to control the growth of spending per capita on public health, which is set to rise as Brazil's population ages (see Selected Issues Paper).

- *Containing payroll growth.* Payrolls represent a large share of spending, especially in subnational governments. Ensuring prudent hiring and remuneration decisions will be essential. In this context, reforms to make exit from civil service feasible and to rationalize automatic career progression are also needed.

- *Subnational governments:* Strengthening institutional relationships across levels of government and enacting legislation enabling states to make difficult expenditure adjustments should be part of the strategy to help states regain control of their finances. The recommendations on social security and payroll control apply fully to the case of states. A firm commitment by states to increasing transparency is also key.

- *Minimum wage and indexation.* The current formula for minimum wage revisions affects the growth in pension and other benefits, and is thus a source of fiscal pressure over the medium term. Severing the automatic link between benefit payments and the minimum wage is advisable, as would be limiting minimum wage increases to cost of living adjustments.

- *Spending efficiency and composition.* The spending cap will make it imperative for government agencies to make better use of their resources to prevent a decline in the quality of their services. Also, decisions over the composition of expenditure should preserve programs with a positive impact on growth, including investment, and social safety nets for the most vulnerable members of society.

22. **By itself, the expenditure cap could take several years to stabilize and reduce debt.** As designed, the cap would give the government one and possibly two more years of positive real spending growth, before freezing real spending when inflation stabilizes. In staff's baseline scenario, the expenditure cap is implemented fully and one-off revenues like those in the 2017 budget proposal are assumed to be collected each year. Given staff's macroeconomic assumptions, this policy combination would keep the overall deficit high for many years, during which the government would continue to crowd out private agents from scarce funding (Tables 1 and 3, and DSA). Public debt (GFSM definition) would reach 93.5 percent of GDP in 2021, and would peak around two years later before beginning to decline.

23. **Against this backdrop, a more frontloaded adjustment which results in a faster regeneration of the currently exhausted fiscal space has merit.** The eventual trajectory of debt ratios will depend on the evolution of growth, real interest rates, and primary balances—with the last of these elements being most closely under the government's influence. Frontloading fiscal

consolidation may be a headwind to growth in the near term, but it can boost confidence and reduce pressures on funding markets, bolstering growth in subsequent years.[12] Staff's recommendation is to gradually raise the primary balance to about 3 percent of GDP by 2021; with this, public debt would start declining from a peak of 86 percent of GDP already in that year (see DSA). Beyond that point, the primary surplus would have to remain at a similarly high level for debt ratios and borrowing costs to decrease to more comfortable levels. The additional adjustment, which would rise gradually, would require a mixture of efforts to undershoot the spending cap and mobilize quick-acting revenue gains, over-performing on the government's own primary balance targets by 0.3 percent of GDP in 2017 and 2018, and by larger margins in subsequent years (text table). Moreover, these efforts may be even more urgent if one-off revenues cannot be sustained at the 2017 level going forward. Some revenue measures should be temporary, remaining in effect only while debt is still rising, and could include, in addition to asset sales, increases in fuels taxes (CIDE) and federal turnover taxes (PIS/COFINS), an increase in the IOF tax on new loans, and the roll-back of payroll tax cuts and other tax expenditures (including the SIMPLES program). Expenditure measures should include the extension of the spending cap to subnational entities, and an additional reduction of inefficient discretionary expenditures. Given concerns over the short run effects on output of adjustment, these actions should proceed as economic growth firms up.

Scenario: Debt Reduction Begins by 2021

	2016	2017	2018	2019	2020	2021
Growth	-3.3	0.2	1.5	2.2	2.5	2.2
Inflation (GDP deflator), %	8	6.1	5.3	5.1	5	5
Primary Balance, % GDP						
Authorities' Target	-2.6	-2.1	-0.9	0.2	…	…
IMF Baseline	-2.7	-2.3	-1.3	-0.5	0.1	0.8
IMF Recommended Path		-1.8	-0.6	0.7	2.0	3.0
Measures Required, % GDP	…	0.5	0.7	1.2	1.9	2.2
Revenues	…	0.3	0.5	0.8	1.0	1.0
Expenditures	…	0.2	0.2	0.4	0.9	1.2
Gross Debt, % GDP	78.4	82.8	84.7	85.7	85.8	85.5

[12] In the period 1999–2014, fiscal multipliers in Brazil were around 0.3–0.5 percent (Selected Issues Paper for the 2014 Article IV Consultation). The text table reflects this adverse effect on growth in 2017, but assumes that tailwinds from faster restoration of fiscal sustainability will more than offset this "multiplier" effect in the following years, with this boost tapering toward the end of the projection period. The scenario does not assume additional supply side structural reforms that would lead to a permanently higher rate of real GDP growth.

B. Monetary and Financial Stability Policy

24. **The stance of monetary policy should remain unchanged until inflation is more certain to converge to the central target.** In the current context, marked by uncertainty about the output gap, approval of key reforms, and related movements in the exchange rate, maintaining current monetary policy settings would be broadly appropriate. The spike in inflation caused by regulated-price and exchange-rate adjustments over 2015, as well as inflation persistence related to the more recent drought-related food price shock, are expected to wane soon, while the effects of weak demand and the recent exchange rate appreciation are expected to increasingly put downward pressure on inflation. This would allow an easing cycle to begin in 2017. Nevertheless, there is a risk that second-round effects of high inflation in 2015 contribute to an increase in inflation persistence. Monetary policy should, therefore, remain tight until inflation expectations settle closer to the mid-point of the central bank's tolerance range. In this context, tangible progress in fiscal adjustment and reforms would create space for easing monetary policy. The intention to strengthen the inflation targeting framework by enhancing the autonomy of the central bank and improved central bank communication are welcome. These steps will boost institutional credibility and may contribute to faster disinflation (see Selected Issues Paper).

25. **The exchange rate should remain the key external adjustment variable.** Intervention should remain limited to episodes of disorderly market conditions. Reserve buffers should be preserved, resisting pressures to use them for ad-hoc purposes or for defending the currency in the event of sustained capital outflows (see RAM). Continuing gradually to reduce the net notional value of FX swaps, including by issuance of reverse FX swaps, is advisable. If improved market sentiment from the swift implementation of structural reforms or more generally as foreign investors search for yield in an environment of low interest rates leads to increased capital inflows with potentially unwarranted appreciation, the options available would be to tighten fiscal policy (as in Staff's recommended path, for example, provided growth remains positive), issue more reverse FX swaps (involving some fiscal cost), further reserve accumulation (with higher sterilization costs), and an easing of the policy rate while raising the TJLP (with tradeoffs concerning the disinflation effort).

26. **While the health of the banking system remains largely sound, the resilience of the banking sector should be bolstered.** The health of the banking system remains largely sound, although the recession has affected profitability and asset quality. The mission welcomes the moderation in the growth rate of credit by public banks, their plans to reduce direct financing of large corporations with market access, reducing credit market distortions, and the intention of the two largest public banks to strengthen their capital position. To make the banking sector more resilient to shocks, financial safety nets should be improved by strengthening the procedures for use of the deposit insurance fund (for example, by securing adequate funding for the fund), enhancing the central bank's emergency liquidity assistance, and modernizing the resolution regime. To strengthen transparency and accountability and reinforce the authorities' ability to identify and respond to future risks, an explicit mandate with clear responsibilities should be given to a committee comprising all financial regulators, the deposit Guarantee Fund, and the Ministry of finance, for macro-prudential oversight. Also, a mandate should be given to a separate entity that

should set up a coordination framework to support timely and effective decision-making in a crisis situation, and periodically test the capacity of the authorities to respond to crisis scenarios. The authorities are also urged to follow through on their plans to strengthen private insolvency frameworks, with the aim of expediting the bankruptcy process and reducing default losses incurred by creditors. Risks arising from high private sector leverage underscore the need for continued vigilance and close monitoring of the health of the corporate sector and its links to the banking sector.

C. Policies to Boost Potential Growth

27. **Structural reforms targeted at reducing costs of doing business, enhancing efficiency, and fostering investment are essential to strengthen growth over the medium term.** While some of these reforms are difficult politically, they come at very little economic cost and would hasten a return to growth and bolster it beyond the current projection of 2 percent over the medium term—although quantifying the precise impact on growth of these reforms is difficult. Key areas to consider are:

- *Infrastructure bottlenecks*. The infrastructure concessions program is critical to alleviating supply-side constraints and boosting competitiveness. Following through on recently announced enhancements and regulatory reforms would help make the program more attractive to investors, while maintaining high standards of governance and program design.

- *Tax reform*. Brazil's tax system is complex and burdensome. One important way to reduce the cost of doing business would be to simplify the federal PIS/COFINS and the State Tax on the Circulation of Goods and Services (ICMS).[13]

- *Opening the economy*. Tariffs and nontariff-barrier reductions, a revision of the policy on domestic content requirements, and pursuing free-trade negotiations outside Mercosur would help increase competition and efficiency.

- *Efficient allocation of savings*. A review of credit earmarking rules and other distortions would be advisable to ensure that national savings go to their most productive uses.

- *Labor reform*. Reforms aimed at facilitating productive employment and reducing incentives for informality would promote job-creation, investment, and growth. Reforms should be mindful of first-time entrants in the labor market, a segment composed largely of young people and relatively sensitive to cyclical fluctuations. The moderation of the minimum wage indexation rule, proposed earlier on fiscal grounds, would also contribute to restoring youth employment.

[13] The PIS/COFINS is an indirect levy earmarked for the funding of social security, and is thus considered a "contribution" instead of a tax.

28. **Fiscal statistics should be made more comprehensive.** In particular:

- A full balance sheet for general government should be published. Although balance sheets are published by the federal and other governments, the published balance sheet for general government includes only debt and financial assets. Among the missing items are accounts payable, including floating debt (*restos a pagar*), and liabilities related to civil servants' pensions.

- Given the importance of state-owned enterprises and public banks in the analysis of fiscal policy, the government should also publish fiscal statistics for the entire nonfinancial public sector (i.e., including Eletrobras and Petrobras) and for the entire public sector (including BNDES, Caixa Econômica Federal, and Banco do Brasil). However, these entities should not be included in the calculation of fiscal targets (as including them would introduce new distortions).

- Strengthening fiscal transparency in states' fiscal reporting (including by adopting standard accounting practices) and timely monitoring and enforcement of fiscal rules are key challenges.

29. **The effective implementation of transparency, anti-corruption and AML measures would contribute to enhancing predictability for businesses and ensure a greater perception of fairness.** Authorities' commitments to make data on public procurement open by default, implement the recent legislation on conflict of interest, and strengthen whistleblowing mechanisms should be implemented. To further strengthen the effectiveness of the anti-corruption and AML frameworks, the authorities should eliminate regulations that provide opportunities for bribes. Additionally, the authorities aim to 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. Authorities should also 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.

AUTHORITIES' VIEWS

30. **The authorities see evidence that economic activity has stabilized recently.** They indicated that growth is likely to turn positive in the fourth quarter of this year, driven by rising confidence and a recovery in investment. The authorities agreed with staff that the weak labor market is likely to hamper the recovery in private consumption. Nevertheless, they were more optimistic than staff about the prospects for investment, especially if deleveraging is accelerated through equity issuance and M&A activity. In their view, swift passage of the two main fiscal reforms would provide additional support for the recovery. Thus, the Ministry of Finance projects GDP growth of 1.6 percent in 2017 and 2.5 in 2018, and considers that there is the potential for upside surprises.

31. **The authorities were also positive on Brazil's medium-term growth prospects, subject to steady progress with a deliberate sequence of reforms.** They are of the view that the recently revamped infrastructure concession framework and the associated regulatory changes would

facilitate private sector participation in the existing pipeline of priority investment projects, helping raise potential growth over the medium term. They also indicated that their agenda included a number of structural reforms, such as tax simplification, labor reform, and negotiation of new international trade agreements. However, they explained that these reforms would most likely wait till after key fiscal reforms are secured.

32. **The authorities stressed that regaining control of public expenditure must be at the front and center of the fiscal reform strategy.** They explained that expenditure growth has structural causes, and that their proposed constitutional amendment (which they see as having a high probability of approval) would help address these problems at the root. The cap would force Congress to make tough choices in the annual budget. They also see the expenditure cap as a commitment device that would support the negotiation and approval of other necessary reforms in the fiscal area, including the social security reform.

33. **The authorities agreed with staff that fiscal consolidation would need to go beyond the expenditure cap, but stressed the need to tackle challenges in a sequence.** They noted that a stronger macroeconomic environment will contribute to the stabilization and eventual reduction in debt. They indicated also that the government would aim to accelerate the reduction of gross debt through asset sales and other operations, including the negotiation of an early repayment of debt by BNDES, amounting to R$100 billion over three years. They noted that additional measures, including rolling back tax exemptions, could be considered once the expenditure ceiling was approved, the social security reform was well advanced, and the recovery in economic activity had started. Tax measures would also be considered if the primary balance target for 2017 were at some point to appear at risk (they felt confident that the 2016 target would be met, noting the expected contribution from the repatriation tax).

34. **The authorities concurred that pension and social benefits reforms are urgent, but will involve difficult negotiations.** The authorities see the current juncture as a historical opportunity to push for a reform that can stabilize the trajectory of the finances of the social security for the next three decades or so. They felt that the discussion of retirement age increases was mature, but other aspects of the social security system would need to be reformed as well. They indicated that Brazil's finances preempted consideration of reforms based on the adoption of a defined contribution scheme as a main pillar. They explained that the reform they envisage would aim to cover the various key parameters of the system, and reach a variety of participants in the system (including contributors and beneficiaries, and people in various age and employment groups) to distribute the effects of the reforms broadly. They stressed that the reform would respect constitutional constraints and rights. They finally noted that the final form of the reform, including its transitional clauses, would reflect the outcome of ongoing discussions with many stakeholders and the congress.

35. **The authorities were concerned with fiscal problems in many subnational governments, and elaborated on their strategy to help them.** The authorities agreed that stress in the finances of many states reflects both cyclical and structural factors. They also acknowledged that the steps taken so far, largely involving rescheduling of debt service payments to the national

treasury, are insufficient to deal with the most difficult cases. They see the need to include states in key structural reforms (such as social security reform and the expenditure cap) and to promote national reforms that can enable states to address their employment and employee remuneration problems. They underscored that greater transparency in the disclosure of state government finances is necessary to better diagnose the specific situation of each state (they vary significantly) and for monitoring purposes. The National Treasury is also organizing missions to those states experiencing the most severe strains to help them devise programs to address both their immediate needs and their structural problems.

36. **The central bank emphasized that ensuring convergence of inflation to the target in the relevant horizon for monetary policy was a priority.** The relevant horizon involves the years for which the National Monetary Council (CMN) has set targets, including 2017. They noted that disinflation is ongoing, but its pace is still uncertain. Their models had been pointing to falling inflation over the projection horizon; but inflation has shown persistence, partly due to successive food-price shocks and perhaps also due to inertial mechanisms. They also explained that the start of an easing cycle would depend on factors that allow the Monetary Policy Committee (COPOM) to have greater confidence in meeting the inflation targets. They emphasized the following factors: limited persistence of the effects of food-price shocks, an appropriate pace of disinflation of the components that are most sensitive to monetary policy and economic activity, and a reduction in uncertainty regarding the approval and implementation of fiscal reforms. Additionally, the authorities agreed that the monetary policy framework could be improved in a number of ways, some of them under consideration, including bolstering central bank autonomy, and increasing the effectiveness of monetary policy by changing various credit policies that involve earmarking and credit subsidies.

37. **The central bank's views on foreign exchange interventions are broadly consistent with those of staff.** They thought that the exchange rate has proven to be good shock absorber and that their interventions through FX swaps and repos have preserved the direction of movements determined by the market while smoothing excess volatility. They noted that the FX swaps also have a strong macro-prudential component, inasmuch as they shelter corporates, and consequently their creditors, against adverse exchange rate movements. They also stated that, as the end of the current benign period for emerging market economies approaches, there will be less room to reduce the stock of FX swaps. The authorities did not rule out future interventions using different instruments, only if needed and when market conditions allow.

38. **The authorities emphasized the resilience of the banking system and the demonstrated effectiveness of their tools for monitoring and management of risks.** The authorities acknowledged staff's concern about the health of the corporate sector, but noted that they are monitoring the system closely and that banks remain well capitalized and have significantly increased provisions for corporate exposures. The authorities indicated that they already have a comprehensive and timely stress testing framework, which they will continue to enhance, consistent with the staff's recommendations, such as the "bottom-up" approach. They also expect that the new resolution framework, consistent with the FSB's key attributes of effective resolution regimes, will

include the backstop for the deposit insurance fund from the central bank, and will be implemented in 2017. The authorities agreed that providing mandates for macro-prudential oversight and crisis management with clear objectives and division of responsibilities would enhance implementation of macro-prudential policies and crisis preparedness. They also noted that there is no room for easing of macro-prudential policies as most of tools are, or were already loosened up to the micro-prudential limits.

39. **The authorities acknowledged the need to open up the economy and improve the business environment.** They saw merit in reducing tariffs and domestic content requirements and committed to pursuing free-trade negotiations outside Mercosur to help increase competition and efficiency. They agreed that increasing labor market flexibility by allowing collective agreements to stand above general regulations would foster investment and promote economic activity in general. While some actions on the structural front are already ongoing, legal reforms will need to be taken up after higher priority reforms are concluded.

STAFF APPRAISAL

40. **Brazil must revamp its policy framework to restore fiscal sustainability, rein in inflation, and open up the economy, in the context of a still uncertain recovery from a prolonged recession.** Policymaking in recent years has failed to tackle long-standing structural problems and proven to be counterproductive, contributing to the erosion of policy credibility and a large contraction of output. Fiscal sustainability is at risk.

41. **Efforts aimed at capping the growth of fiscal spending and reforming the social security system are well founded steps to restore fiscal sustainability; but more will be required to address budgetary rigidities.** The approval and steadfast implementation of the spending cap would help improve the long-term trajectory of public spending and permit the stabilization and eventual reduction of public debt as a share of GDP. Similarly, putting the social security system on a sound footing for future generations is a key part of restoring fiscal sustainability and preserving the social contract. The credibility of reforms will be bolstered if attention is also placed on the link between minimum wage indexation and benefit payments, revenue earmarking, and rigidities and lack of transparency in subnational budgets.

42. **To guard against risks emanating from prolonged fiscal adjustment, there is merit in considering a more frontloaded consolidation strategy once growth has firmed up.** Through a combination of expenditure and revenue measures, the government can contain the growth in public debt and reverse the trajectory of public debt earlier. This would alleviate the onerous burden of high borrowing costs on the private sector, and enable a more rapid and sustainable recovery. Revenue measures can begin once economic growth is underway, and some of them should be temporary.

43. **Monetary policy should remain on hold until inflation expectations converge more clearly toward the central target.** Staff considers current monetary policy settings as broadly

appropriate given inflation expectations and remaining uncertainties. Tangible progress on restoring the sustainability of public finances would create room for easing monetary policy earlier than envisaged.

44. **Staff welcomes the use of the exchange rate as the first line of defense against shocks.** Intervention in foreign exchange markets should remain limited to episodes of disorderly market conditions, and reserve buffers should be preserved. Staff sees merit in the continuation of the central bank's policy to reduce the net notional value of FX swaps.

45. **The resilience of the banking sector should be bolstered.** Although the recession took a toll on asset quality and profitability, the health of the banking system remains largely sound. Looking ahead, to make the banking sector even more robust, financial safety nets should be improved by strengthening the procedures for use of the deposit insurance fund, enhancing the central bank's emergency liquidity assistance, and modernizing the resolution regime. Private insolvency frameworks should be improved, and frameworks to identify, prepare for, and respond to future risks should be put in place. Staff welcomes the ongoing work to strengthen the stress testing framework used by the central bank.

46. **Well-designed and properly sequenced structural reforms can hasten the return to growth and strengthen it over the medium term.** Staff encourages the authorities to follow through on various plans to strengthen the supply side of the economy, increase efficiency and productivity, and to further implement transparency, anti-corruption and AML measures. Without these reforms, potential growth is likely to remain underwhelming.

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

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 (2013)	1.9
		Hospital beds per 1000 people (2012)	2.3
Population		Access to safe water (2015)	98.1
Total (million) (est., 2015)	204.5		
Annual rate of growth (percent, 2015)	0.8	Education	
Density (per sq. km.) (2012)	24.0	Adult illiteracy rate (2014)	8.3
Unemployment rate (latest, 2016)	11.6	Net enrollment rates, percent in:	
		Primary education (2014)	99
Population characteristics (2014)		Secondary education (2014)	84
Life expectancy at birth (years)	75		
Infant mortality (per thousand live births)	14	Poverty rate (in percent, 2013)	15.1
Income distribution (2014)		GDP, local currency (2015)	R$5,904 billion
By highest 10 percent of households	40.9	GDP, dollars (2015)	US$1,773 billion
By lowest 20 percent of households	3.6		
Gini coefficient (2014)	51.8	GDP per capita (est., 2015)	US$8,668

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

II. Economic Indicators

			Proj.					
	2014	2015	2016	2017	2018	2019	2020	2021
			(Percentage change)					
National accounts and prices								
GDP at current prices	7.0	3.8	4.4	6.6	6.9	7.2	7.1	7.1
GDP at constant prices	0.1	-3.8	-3.3	0.5	1.5	2.0	2.0	2.0
Consumption	1.3	-3.4	-4.1	-0.4	0.6	0.8	1.0	1.1
Investment	-5.6	-22.6	-11.3	4.6	5.1	7.1	6.1	5.5
Consumer prices (IPCA, end of period)	6.4	10.7	7.2	5.0	4.8	4.5	4.5	4.5
			(In percent of GDP)					
Gross domestic investment	21.0	19.2	18.4	18.9	19.4	20.1	20.7	21.3
Private sector	18.6	17.3	17.0	17.4	17.9	18.7	19.2	19.7
Public sector	2.4	1.9	1.4	1.5	1.6	1.5	1.5	1.6
Gross national savings	16.7	15.9	17.6	17.4	17.7	18.3	19.0	19.5
Private sector	20.2	24.1	26.5	25.3	24.2	23.9	23.8	23.7
Public sector	-3.5	-8.2	-8.9	-7.8	-6.5	-5.6	-4.8	-4.2
Public sector finances								
Central government primary balance 1/	-0.4	-2.0	-2.7	-2.4	-1.7	-0.9	-0.2	0.4
NFPS primary balance	-0.6	-1.9	-2.7	-2.3	-1.3	-0.5	0.1	0.8
NFPS cyclically adjusted primary balance	-1.5	-1.7	-1.6	-1.4	-0.8	-0.3	0.1	0.8
NFPS overall balance (including net policy lending)	-7.0	-10.4	-10.5	-9.5	-8.2	-7.2	-6.2	-5.9
Net public sector debt	33.1	36.2	45.9	50.9	54.1	56.8	59.7	62.5
General Government gross debt, Authorities' definition	57.2	66.5	...	...	...	...	...	...
NFPS gross debt	63.3	73.7	78.4	82.9	85.7	88.2	90.9	93.5
Of which: Foreign currency linked	3.4	4.6	3.8	3.7	3.7	3.6	3.6	3.5
			(Annual percentage change)					
Money and credit								
Base money 2/	-4.5	8.4	4.5	6.7	6.9	7.2	7.1	7.1
Broad money 3/	13.5	9.8	5.8	9.6	10.0	10.6	13.6	14.4
Bank loans to the private sector	10.9	3.6	1.2	5.6	9.3	11.4	12.0	12.6
			(In billions of U.S. dollars, unless otherwise specified)					
Balance of payments								
Trade balance	-6.6	17.7	48.5	48.6	47.3	46.5	49.2	51.9
Exports	224.1	190.1	197.6	206.7	210.9	215.7	224.8	233.6
Imports	230.7	172.4	149.1	158.1	163.6	169.2	175.7	181.8
Current account	-104.2	-58.9	-14.7	-29.5	-34.9	-38.6	-39.9	-41.2
Capital account and financial account	100.8	55.2	14.7	29.5	34.9	38.6	39.9	41.2
Foreign direct investment (net)	70.9	61.6	61.8	56.7	53.1	50.8	49.2	47.7
Terms of trade (percentage change)	-3.4	-11.0	3.2	-2.5	-2.9	-2.4	-0.7	-0.5
Merchandise exports (in US$, annual percentage change)	-7.2	-15.2	3.9	4.6	2.0	4.4	6.6	3.9
Merchandise imports (in US$, annual percentage change)	-4.3	-25.3	-13.5	6.0	3.5	7.0	7.4	3.5
Total external debt (in percent of GDP)	29.5	37.5	38.4	35.3	34.4	33.1	31.7	30.2
Memorandum items:								
Current account (in percent of GDP)	-4.3	-3.3	-0.8	-1.5	-1.7	-1.8	-1.8	-1.8
Gross official reserves	363.6	356.5	369.3	369.3	369.3	369.3	369.3	369.3
REER (annual average in percent; appreciation +)	-1.0	-15.8	...	...	...	...	...	...

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

1/ Includes the federal government, the central bank, and the social security system (INSS). Based on the 2016 draft budget, recent annoucements by the authorities, and staff projections.

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

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

Table 2. Brazil: Balance of Payments
(In billions of U.S. dollars, unless otherwise indicated)

	2014	2015	2016	2017	2018	2019	2020	2021
			Proj.					
Current Account	**-104.2**	**-58.9**	**-14.7**	**-29.5**	**-34.9**	**-38.6**	**-39.9**	**-41.2**
Trade balance	-6.6	17.7	48.5	48.6	47.3	46.5	49.2	51.9
Exports (fob)	224.1	190.1	197.6	206.7	210.9	215.7	224.8	233.6
Imports (fob)	230.7	172.4	149.1	158.1	163.6	169.2	175.7	181.8
Income, net	-49.4	-39.6	-35.6	-44.4	-45.4	-46.6	-48.3	-50.3
Capital and Financial Account	**100.8**	**55.2**	**14.7**	**29.5**	**34.9**	**38.6**	**39.9**	**41.2**
Capital account	0.2	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Financial account 1/	100.6	54.7	14.2	29.1	34.4	38.1	39.4	40.7
Direct investment, net	70.9	61.6	61.8	56.7	53.1	50.8	49.2	47.7
Assets	26.0	13.5	14.6	16.0	17.5	19.1	20.9	22.7
Liabilities	96.9	75.1	76.4	72.7	70.6	70.0	70.1	70.4
Portfolio investment, net	38.7	22.0	2.3	0.9	0.2	-0.7	-1.8	-1.9
Financial Derivatives, net	-1.6	-3.4	0.4	0.4	0.4	0.4	0.4	0.4
Other investment, net	3.4	-23.9	-37.3	-28.9	-19.3	-12.4	-8.4	-5.4
Change in Reserve Assets, net	-10.8	-1.6	-12.9	0.0	0.0	0.0	0.0	0.0
Errors and Omissions	**3.4**	**3.7**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Memorandum Items:								
Gross reserves (eop) 1/								
In billions of U.S. dollars	363.6	356.5	369.3	369.3	369.3	369.3	369.3	369.3
Net international reserves (eop)								
In billions of U.S. dollars	363.6	357.7	370.6	370.6	370.6	370.6	370.6	370.6
In percent of short-term debt (residual maturity)	234.7	242.8	269.6	263.6	259.5	256.7	256.7	254.9
Current account (in percent of GDP)	-4.3	-3.3	-0.8	-1.5	-1.7	-1.8	-1.8	-1.8
Trade balance (in percent of GDP)	-0.3	1.0	2.7	2.5	2.3	2.2	2.2	2.2
Merchandise exports (in percent of GDP)	9.3	10.7	11.2	10.6	10.4	10.2	10.1	10.1
Merchandise imports (in percent of GDP)	9.5	9.7	8.4	8.1	8.0	8.0	7.9	7.8
Export volume (yoy change, in percent)	-0.3	8.1	5.4	3.3	3.6	3.7	3.6	3.5
Import volume (yoy change, in percent)	-0.1	-13.5	-8.8	3.9	2.6	2.3	2.7	2.9
Export price index (yoy change, in percent)	-5.3	-21.6	-1.4	1.2	-1.5	-1.4	0.6	0.4
Import price index (yoy change, in percent)	-2.0	-11.9	-4.4	3.8	1.5	1.1	1.4	0.8
Terms of trade (yoy change, in percent)	-3.4	-11.0	3.2	-2.5	-2.9	-2.4	-0.7	-0.5
Oil price (Brent blend; US$ per barrel)	96.2	50.8	43.0	50.6	53.1	54.4	56.3	57.6
Nominal exchange rate (R/US$, annual average)	2.35	3.33	...	...	...	...	...	...
REER (annual average in percent; appreciation +)	-1.0	-15.8	...	...	...	...	...	...
GDP in billions of U.S. dollars	2,417	1,773	1,769	1,957	2,032	2,122	2,218	2,319

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

1/ Historical numbers include valuation changes.

Table 3. Brazil: Main Fiscal Aggregates

(In percent of GDP, unless otherwise indicated)

			Proj.					
	2014	2015	2016	2017	2018	2019	2020	2021
FEDERAL GOVERNMENT 1/								
Nonfinancial revenue	**21.5**	**20.8**	**20.2**	**21.0**	**21.4**	**21.7**	**21.9**	**21.9**
Revenue administered by SRF	13.2	12.9	12.3	12.7	12.9	13.1	13.2	13.2
PIT	2.6	2.5	2.3	2.4	2.5	2.6	2.6	2.6
CIT	4.0	3.5	3.3	3.5	3.5	3.6	3.6	3.6
Indirect Taxes	5.8	6.0	5.8	5.9	6.0	6.0	6.1	6.1
Trade taxes	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Other	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Social security contributions	5.9	5.8	5.7	5.7	5.7	5.8	5.8	5.8
Other revenue	2.4	2.1	2.2	2.6	2.8	2.8	2.8	2.9
Total primary expenditure	**21.8**	**22.8**	**22.9**	**23.4**	**23.1**	**22.6**	**22.1**	**21.5**
Current expenditures	20.5	21.8	22.3	22.6	22.4	22.2	22.1	22.1
Personnel	3.9	4.0	4.2	4.4	4.3	4.2	4.1	4.0
Transfers	3.7	3.7	3.4	3.5	3.4	3.3	3.3	3.2
Pension benefits	6.9	7.4	8.5	8.7	8.9	9.1	9.4	9.6
Other	6.0	6.7	6.2	6.0	5.8	5.6	5.3	5.2
Capital expenditures	1.4	1.0	0.7	0.8	0.9	0.9	1.0	1.0
Expenditure reforms to meet Spending Cap Rule					-0.2	-0.5	-1.0	-1.6
Primary balance	**-0.4**	**-2.0**	**-2.7**	**-2.4**	**-1.7**	**-0.9**	**-0.2**	**0.4**
Borrowing requirement	4.8	8.7	8.8	7.8	6.7	5.7	4.8	4.1
STATES AND MUNICIPALITIES								
Nonfinancial revenue	**10.8**	**10.7**	**10.5**	**10.5**	**10.6**	**10.6**	**10.6**	**10.6**
Own revenues	8.0	8.2	8.1	8.1	8.0	8.0	7.9	7.9
Indirect taxes	6.5	6.6	6.5	6.4	6.4	6.4	6.3	6.3
Other	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Transfers from the federal government	2.7	2.5	2.4	2.5	2.6	2.6	2.7	2.7
Total primary expenditure	**11.0**	**10.6**	**10.5**	**10.5**	**10.3**	**10.3**	**10.4**	**10.3**
Current expenditures	10.0	9.7	9.8	9.8	9.9	9.9	9.9	9.8
Personnel	4.9	4.9	4.9	5.0	5.0	5.1	5.0	4.9
Other	5.1	4.8	4.9	4.9	4.9	4.8	4.8	4.9
Capital expenditures and other	1.0	0.9	0.7	0.7	0.7	0.6	0.6	0.5
Expenditure reforms to meet the primary surplus target			-0.1	-0.1	-0.2	-0.3	0.0	0.0
Primary balance of municipalities	**0.1**	**0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0.1**	**0.2**
Primary balance	**-0.1**	**0.1**	**0.0**	**0.0**	**0.3**	**0.3**	**0.2**	**0.4**
Borrowing requirement	1.1	1.6	1.6	1.6	1.4	1.4	1.3	1.6
PUBLIC ENTERPRISES								
Federal enterprises								
Nonfinancial revenue	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Expenditures	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Personnel	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Other current expenditures	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Capital expenditures	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
State and municipal enterprises								
Primary balance	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Primary balance	**-0.1**	**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								
Primary balance	**-0.6**	**-1.9**	**-2.7**	**-2.3**	**-1.3**	**-0.5**	**0.1**	**0.8**
Primary balance (Authorities' target)			-2.6	-2.1	-0.9	0.2		
Overall balance	-6.0	-10.4	-10.5	-9.5	-8.2	-7.2	-6.2	-5.9
Overall balance including policy lending	-7.0	-10.4	-10.5	-9.5	-8.2	-7.2	-6.2	-5.9
Structural primary balance 2/	-1.3	-1.4	-1.6	-1.4	-0.9	-0.4	-0.1	0.6
Structural primary balance including policy lending	-2.3	-1.4	-1.6	-1.4	-0.9	-0.4	-0.1	0.6
Memorandum items								
Additional adjustment to meet Authorities' target			-0.1	-0.1	-0.5	-0.7	-1.0	-1.6
Public Investment Pilot Expenditure	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Growth Acceleration Program	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transfers to SWF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Loans to public financial institutions 3/	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NFPS net interest expenditure	5.5	8.5	7.8	7.2	6.9	6.7	6.3	6.7
Net central government debt 4/	22.4	25.4	34.8	39.0	41.5	43.7	46.0	47.9
Net public sector debt 4/	33.1	36.2	45.9	50.9	54.1	56.8	59.7	62.5
Gross public sector debt	63.3	73.7	78.4	82.9	85.7	88.2	90.9	93.5
General Government Debt, Authorities' Definition	57.2	66.5	…	…	…	…	…	…
Nominal GDP (million Brazilian reais)	5,687,310	5,904,332	6,166,126	6,575,681	7,028,792	7,533,815	8,066,764	8,640,597

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

1/ Comprises the central administration; the Central Bank of Brazil; and the social security system.

2/ Structural primary balance adjusts for output gap and one-off measures.

3/ Policy lending to BNDES and others.

4/ 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
(End of period, in billions of reais)

	2010	2011	2012	2013	2014	2015
			I. Central Bank			
Net foreign assets	**474.6**	**653.8**	**756.9**	**834.5**	**958.9**	**1,376.9**
Net international reserves	473.2	659.7	762.5	840.7	965.8	1,392.2
Other foreign assets (net)	1.5	-5.9	-5.6	-6.2	-6.9	-15.4
Net domestic assets	**55.9**	**-66.1**	**-248.9**	**-259.9**	**-410.4**	**-782.5**
Net claims on public sector	292.7	176.4	276.7	266.0	415.4	242.6
Net credit to other depository corporations	-227.4	-288.6	-474.1	-479.0	-764.3	-882.9
Other items (net)	9.4	-46.2	51.5	46.9	61.5	142.2
Base money	**530.6**	**587.7**	**508.0**	**574.6**	**548.5**	**594.4**
Currency issued	151.1	162.8	187.4	204.1	220.9	225.5
Liabilities to other depository corporations	379.4	424.9	320.0	369.0	325.7	368.4
Reserve deposits	55.7	51.5	45.9	45.5	42.7	29.8
Liabilities to other sectors	0.0	0.0	0.6	1.5	1.9	0.6
			II. Depository Corporations 1/			
Net foreign assets	**378.0**	**488.5**	**527.5**	**638.2**	**734.7**	**1,089.4**
Net international reserves	473.2	659.7	762.5	840.7	965.8	1,392.2
Other foreign assets (net)	-95.2	-171.2	-235.0	-202.5	-231.2	-302.9
Net domestic assets	**2,210.7**	**2,579.4**	**3,028.2**	**3,234.5**	**3,662.0**	**3,738.1**
Net claims on public sector	1,225.7	1,210.1	1,368.6	1,346.1	1,488.8	1,628.2
Credit to other financial corporations	294.2	342.7	383.7	431.6	496.1	526.0
Credit to private sector	2,050.4	2,541.7	3,010.2	3,424.5	3,815.8	4,006.6
Of which: loans to private sector	661.0	817.0	966.8	1,126.6	1,264.6	1,505.9
Other items (net)	1,418.3	1,585.0	1,838.2	2,100.1	2,315.7	2,680.9
Capital	613.2	631.2	793.4	791.6	857.9	855.4
Other liabilities excluded from broad money	805.1	953.8	1,044.9	1,308.5	1,457.9	1,825.6
Broad money (M2) 2/	**2,588.7**	**3,067.9**	**3,555.7**	**3,872.7**	**4,396.7**	**4,827.5**
Currency in circulation	121.7	131.4	149.6	163.9	178.3	185.3
Demand deposits	165.2	159.8	182.3	189.8	183.9	160.9
Quasi-money liabilities	2,301.8	2,776.7	3,223.8	3,519.0	4,034.6	4,481.3
			(Ratio)			
Multiplier (M2/base money)	4.9	5.2	7.0	6.7	8.0	8.1
			(In percent of GDP)			
Base money	13.7	13.4	10.6	10.8	10.3	10.5
Broad money (M2)	66.6	70.1	74.0	72.8	82.7	84.9
M3 3/	65.6	69.3	73.2	71.9	81.2	83.7
M4 4/	78.2	81.2	85.4	82.8	93.9	97.7
Financial sector credit to the private sector	52.8	58.1	62.6	64.4	71.8	70.4
Of which: bank credit	40.6	43.3	45.7	47.6	52.8	51.1
Memorandum item:						
GDP (in billions of national currency)	3,886	4,374	4,806	5,316	5,316	5,687

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, Balance of Payments, and External Debt

	2014	2015	2016	2017	2018	2019	2020	2021
			Proj.					
MACROECONOMIC FRAMEWORK	In percent of GDP, unless otherwise specified							
GDP growth at constant prices (in percent)	0.1	-3.8	-3.3	0.5	1.5	2.0	2.0	2.0
Consumer prices (IPCA, end of period, in percent)	6.4	10.7	7.2	5.0	4.8	4.5	4.5	4.5
Gross domestic investment	21.0	19.2	18.4	18.9	19.4	20.1	20.7	21.3
Private sector	18.6	17.3	17.0	17.4	17.9	18.7	19.2	19.7
Public sector	2.4	1.9	1.4	1.5	1.6	1.5	1.5	1.6
Gross domestic savings	16.7	15.9	17.6	17.4	17.7	18.3	19.0	19.5
Private sector	20.2	24.1	26.5	25.3	24.2	23.9	23.8	23.7
Public sector	-3.5	-8.2	-8.9	-7.8	-6.5	-5.6	-4.8	-4.2
External current account balance	-4.3	-3.3	-0.8	-1.5	-1.7	-1.8	-1.8	-1.8
Central government primary balance	-0.4	-2.0	-2.7	-2.5	-1.8	-1.2	-0.9	-0.8
Consolidated non-financial public sector								
Primary balance	-0.6	-1.9	-2.7	-2.3	-1.3	-0.5	0.1	0.8
Overall balance	-6.0	-10.3	-10.5	-9.5	-8.2	-7.2	-6.2	-5.9
Public sector net debt 1/	33.1	36.2	45.9	50.9	54.1	56.8	59.7	62.5
General Government gross debt, authorities' definition	57.2	66.5	...	...	...	...	...	...
NFPS gross debt 2/	63.3	73.7	78.4	82.9	85.7	88.2	90.9	93.5
EXTERNAL DEBT 3/ 4/	In billions of U.S. Dollars							
Total external debt	**712.7**	**665.1**	**680.1**	**691.0**	**698.3**	**702.7**	**703.3**	**700.0**
Medium- and long-term	654.9	614.0	629.4	640.7	648.3	653.0	653.9	651.2
Nonfinancial public sector	231.9	192.9	191.1	189.7	188.6	187.5	186.0	184.2
Public sector banks	70.7	68.7	68.0	67.5	67.1	66.7	66.2	65.6
Private sector	410.1	403.6	421.0	433.7	442.6	448.5	451.1	450.2
Short-term	57.8	51.1	50.7	50.3	50.0	49.7	49.3	48.8
Medium- and long-term external debt service	**88.3**	**115.8**	**115.1**	**104.5**	**108.3**	**111.2**	**113.2**	**114.6**
Amortization	70.7	97.1	96.2	86.8	90.3	92.8	94.6	95.9
Interest	17.6	18.7	18.9	17.7	18.1	18.4	18.6	18.7
	In percent of GDP							
Total external debt	**29.5**	**37.5**	**38.4**	**35.3**	**34.4**	**33.1**	**31.7**	**30.2**
Medium- and long-term	27.1	34.6	35.6	32.7	31.9	30.8	29.5	28.1
Nonfinancial public sector	9.6	10.9	10.8	9.7	9.3	8.8	8.4	7.9
Public sector banks	2.9	3.9	3.8	3.5	3.3	3.1	3.0	2.8
Private sector	17.0	22.8	23.8	22.2	21.8	21.1	20.3	19.4
Short-term	2.4	2.9	2.9	2.6	2.5	2.3	2.2	2.1
	In percent of gross international reserves							
Medium- and long-term external debt service	**24.3**	**32.5**	**31.2**	**28.3**	**29.3**	**30.1**	**30.6**	**31.0**
Amortization	19.5	27.2	26.0	23.5	24.4	25.1	25.6	26.0
Interest	4.8	5.2	5.1	4.8	4.9	5.0	5.0	5.1
Short-term debt	15.9	14.3	13.7	13.6	13.5	13.5	13.4	13.2
MEMORANDUM ITEMS:								
Gross reserves (eop) 4/								
In billions of U.S. dollars	363.6	356.5	369.3	369.3	369.3	369.3	369.3	369.3
In percent of external short-term debt	629.2	697.0	728.8	734.2	738.6	743.0	748.8	756.1
In months of prospective GNFS imports	191.2	180.4	178.7	175.1	171.2	164.3	158.1	...
Short-term debt in percent of total external debt	8.1	7.7	7.5	7.3	7.2	7.1	7.0	7.0
Intercompany debt (in billions of U.S. dollars)	207.8	205.7	224.9	239.1	249.1	256.2	260.2	261.2
In percent of GDP	8.6	11.6	12.7	12.2	12.3	12.1	11.7	11.3
GDP (billion US$)	2,417	1,773	1,769	1,957	2,032	2,122	2,218	2,319

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

	2010	2011	2012	2013	2014	2015	Proj. 2016
Trade							
Exports of GNFS (12-month percent change, US$)	29.1	26.1	-3.9	-0.5	-5.6	-15.2	3.9
Imports of GNFS (12-month percent change, US$)	39.8	24.0	0.6	7.1	-2.1	-23.7	-12.9
Terms of trade (12-month percent change)	16.0	7.8	-5.8	-2.0	-3.4	-11.0	3.2
Current account							
Current account	-75.8	-77.0	-74.2	-74.8	-104.2	-58.9	-14.7
In percent of GDP	-3.4	-2.9	-3.0	-3.0	-4.3	-3.3	-0.8
Capital and financial account	76.3	79.5	74.2	73.0	100.8	55.2	14.7
Capital Account	0.2	0.3	0.2	0.3	0.2	0.4	0.4
Financial Account	76.0	79.2	74.0	72.7	100.6	54.7	14.2
Portfolio investment (net)	66.9	41.2	15.8	32.8	38.7	22.0	2.3
Foreign direct investment (net)	61.7	85.1	81.4	54.2	70.9	61.6	61.8
Of which: intercompany loans (net)	23.2	31.5	22.1	39.7	38.3	19.5	20.0
Short-term external liabilities of commercial banks	46.0	34.3	29.2	29.3	49.4	42.7	42.4
External debt							
Total external debt 1/	452.8	516.0	570.8	621.4	712.7	665.1	680.1
In percent of gross reserves	156.9	146.6	153.0	173.2	196.0	186.6	184.1
Amortization of external MLT debt (in percent of GNFS exports)	21.7	13.7	20.3	24.7	31.6	51.1	48.7
External interest payments (in percent of GNFS exports)	7.1	6.1	7.4	7.3	7.8	9.8	9.6
Reserves							
Gross reserves	288.6	352.0	373.1	358.8	363.6	356.5	369.3
In months of prospective GNFS imports	15.2	18.8	18.6	18.7	25.3	28.7	28.0
In percent of broad money (M2)	11.1	11.5	10.5	9.3	8.3	7.4	7.2
In percent of short-term external debt	502.6	875.4	1,142.5	1,096.1	629.2	697.0	728.8
In percent of IMF metric	131.8	150.6	157.6	154.9	148.6	154.1	158.4
Exchange rate							
Exchange rate (R$/US$, period average)	1.76	1.67	1.95	2.16	2.35	3.33	…
REER (annual average in percent; appreciation +)	13.4	3.5	-10.0	-5.6	-1.0	-15.8	…

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

Table 7. Brazil: Financial Soundness Indicators, 2010–16
(In percent, unless otherwise indicated)

	2010	2011	2012	2013	2014	2015	2016q1
				Total banking system			
Capital Adequacy							
Regulatory capital to risk-weighted assets	16.9	16.3	16.4	16.1	16.7	16.4	16.2
Regulatory Tier 1 capital to risk-weighted assets	13.7	12.9	11.9	12.6	13.0	12.7	12.8
Capital to assets	10.3	10.1	10.1	9.3	9.0	8.5	9.0
Gross asset position in financial derivatives to capital	8.8	7.4	7.8	9.6	11.8	29.6	24.5
Gross liability position in financial derivatives to capital	10.6	8.0	9.3	10.9	13.8	35.6	26.3
Asset Quality							
Nonperforming loans to total gross loans	3.1	3.5	3.4	2.9	2.9	3.3	3.6
Provisions to Nonperforming loans	164.8	151.6	148.7	161.2	155.8	154.4	148.2
Earnings and Profitability							
Return on assets	1.9	1.7	1.4	1.4	1.3	1.5	1.4
Return on equity	16.8	16.1	12.9	13.0	13.1	15.4	14.4
Liquidity							
Liquidity assets to short-term liabilities	185.3	178.6	191.8	158.0	202.2	190.0	195.2
Liquidity assets to total assets	12.0	11.7	14.9	10.9	12.0	11.6	12.7
Net open position in foreign exchange to capital	1.1	0.2	-0.6	0.4	0.3	0.5	-0.5
External funding to total funding	7.3	9.2	9.3	8.5	9.4	13.0	12.1
				Public banks			
Capital Adequacy							
Regulatory capital to risk-weighted assets	15.1	14.3	14.5	14.9	16.2	15.5	15.3
Regulatory Tier 1 capital to risk-weighted assets	10.7	9.8	9.4	11.3	11.8	11.0	10.8
Capital to assets	6.8	6.7	6.3	5.6	5.1	4.7	4.9
Gross asset position in financial derivatives to capital	1.1	0.8	1.0	1.7	3.1	8.2	4.8
Gross liability position in financial derivatives to capital	3.9	2.1	2.1	3.0	2.5	3.2	2.7
Asset Quality							
Nonperforming loans to total gross loans	2.0	1.9	1.8	1.9	2.0	2.5	3.0
Provisions to Nonperforming loans	209.6	214.2	203.3	181.1	164.0	157.8	137.3
Earnings and Profitability							
Return on assets	1.8	1.7	1.5	1.5	1.1	1.0	0.8
Return on equity	22.9	21.0	18.7	18.1	13.8	14.4	12.0
Liquidity							
Liquidity assets to short-term liabilities	214.4	201.1	282.1	214.1	209.6	196.0	195.0
Liquidity assets to total assets	13.4	12.9	14.2	10.5	10.2	9.7	10.3
Net open position in foreign exchange to capital	1.6	4.3	0.0	1.4	2.2	-1.2	-3.5
External funding to total funding	2.6	3.2	4.4	4.3	4.6	7.5	6.8
				Private banks (domestic and foreign)			
Capital Adequacy							
Regulatory capital to risk-weighted assets	17.7	17.3	17.4	16.8	16.9	16.8	16.8
Regulatory Tier 1 capital to risk-weighted assets	15.0	14.3	13.2	13.3	13.7	13.6	13.9
Capital to assets	12.2	11.9	12.5	11.8	11.6	10.9	11.7
Gross asset position in financial derivatives to capital	11.1	9.4	9.9	12.2	14.4	35.8	30.1
Gross liability position in financial derivatives to capital	12.6	9.8	11.6	13.5	17.3	44.9	33.1
Asset Quality							
Nonperforming loans to total gross loans	3.9	4.6	4.9	3.8	3.7	4.2	4.4
Provisions to Nonperforming loans	149.0	133.4	131.6	151.7	151.0	152.2	154.9
Earnings and Profitability							
Return on assets	2.0	1.7	1.3	1.3	1.5	1.8	1.7
Return on equity	14.9	14.4	10.8	10.8	12.8	15.8	15.3
Liquidity							
Liquidity assets to short-term liabilities	170.9	166.8	162.4	135.3	198.5	187.2	195.3
Liquidity assets to total assets	11.2	11.1	15.4	11.2	13.3	12.9	14.3
Net open position in foreign exchange to capital	1.0	-1.1	-0.8	0.1	-0.3	1.0	0.3
External funding to total funding	9.8	12.6	12.5	11.8	13.4	17.7	16.4

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

Table 8. Brazil: Brazil External Debt Sustainability Framework, 2013–21

(In percent of GDP, unless otherwise indicated)

				Proj.						Debt-stabilizing non-interest
	2013	2014	2015	2016	2017	2018	2019	2020	2021	current account 6/
Baseline: External debt	**25.2**	**29.5**	**37.5**	**38.4**	**35.3**	**34.4**	**33.1**	**31.7**	**30.2**	**-3.1**
Change in external debt	2.0	4.3	8.0	0.9	-3.1	-0.9	-1.2	-1.4	-1.5	
Identified external debt-creating flows (4+8+9)	1.5	2.5	8.5	-0.9	-1.2	-1.2	-1.2	-1.2	-1.3	
Current account deficit, excluding interest payments	2.3	3.6	2.3	-0.2	0.6	0.8	1.0	1.0	1.0	
Deficit in balance of goods and services	1.9	2.3	1.1	-1.2	-0.8	-0.5	-0.4	-0.4	-0.5	
Exports	11.3	10.9	12.6	13.2	12.4	12.2	12.0	11.9	11.9	
Imports	13.2	13.2	13.7	12.0	11.7	11.7	11.6	11.5	11.4	
Net non-debt creating capital inflows (negative)	-1.1	-1.8	-2.9	-2.9	-2.5	-2.4	-2.3	-2.4	-2.5	
Net foreign direct investment, equity	0.6	1.3	2.4	2.3	2.1	2.0	2.0	2.0	1.9	
Net portfolio investment,equity	0.5	0.5	0.6	0.5	0.4	0.3	0.3	0.4	0.5	
Automatic debt dynamics 1/	0.2	0.7	9.2	2.3	0.7	0.4	0.2	0.2	0.2	
Denominator: 1+g+r+gr	1.0	1.0	0.7	1.0	1.1	1.0	1.0	1.0	1.0	
Contribution from nominal interest rate	0.7	0.7	1.1	1.0	0.9	0.9	0.9	0.8	0.8	
Contribution from real GDP growth	-0.7	0.0	1.5	1.2	-0.2	-0.5	-0.6	-0.6	-0.6	
Contribution from price and exchange rate changes 2/	0.2	0.0	6.6	...	...	...	...	...	...	
Residual, incl. change in gross foreign assets (2-3) 3/	0.5	1.8	-0.5	1.8	-2.0	0.2	-0.1	-0.2	-0.2	
External debt-to-exports ratio (in percent)	222.3	269.9	297.1	292.3	283.8	281.1	276.6	265.6	254.4	
Gross external financing need (in billions of US dollars) 4/	167.2	207.7	213.8	162.0	167.0	175.4	181.4	184.2	186.4	
in percent of GDP	6.8	8.6	12.1	9.0	8.4	8.5	8.4	8.1	7.9	
Scenario with key variables at their historical averages 5/				**38.4**	**38.0**	**36.9**	**35.6**	**34.2**	**32.7**	**-3.3**
Key Macroeconomic Assumptions Underlying Baseline										
Real GDP growth (in percent)	3.0	0.1	-3.8	-3.3	0.5	1.5	2.0	2.0	2.0	
Exchange rate appreciation (US dollar value of local currency, change in percent)	-9.4	-8.3	-29.4	-4.4	3.7	-2.8	-2.6	-2.4	-2.4	
GDP deflator (change in domestic currency)	7.4	6.9	8.0	10.2	6.1	5.3	5.1	5.0	5.0	
GDP deflator in US dollars (change in percent)	-2.7	-2.0	-23.7	5.3	10.1	2.3	2.4	2.5	2.5	
Nominal external interest rate (in percent)	3.1	2.8	2.6	2.8	2.6	2.6	2.6	2.6	2.7	
Growth of exports (US dollar terms, in percent)	-0.5	-5.6	-15.2	3.9	4.6	2.0	2.3	4.2	3.9	
Growth of imports (US dollar terms, in percent)	7.1	-2.1	-23.7	-12.9	7.9	4.1	3.4	3.7	3.3	
Current account balance, excluding interest payments	-2.3	-3.6	-2.3	0.2	-0.6	-0.8	-1.0	-1.0	-1.0	
Net non-debt creating capital inflows	1.1	1.8	2.9	2.9	2.5	2.4	2.3	2.4	2.5	
B. Bound Tests										
B1. Nominal interest rate is at historical average plus one standard deviation				38.4	35.6	35.0	34.0	32.9	31.7	-2.9
B2. Real GDP growth is at historical average minus one standard deviations				38.4	35.9	35.5	34.8	33.9	32.7	-2.8
B3. Non-interest current account is at historical average minus one standard deviations				38.4	36.3	36.2	35.9	35.4	34.7	-3.2
B4. Combination of B1-B3 using 1/2 standard deviation shocks				38.4	36.3	36.2	35.9	35.3	34.6	-2.8
B5. One time 30 percent real depreciation in 2006				38.4	53.3	51.8	49.9	47.8	45.4	-4.9

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.

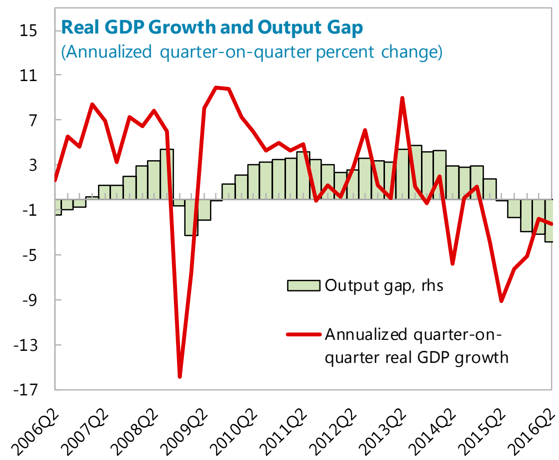
4/ Defined as current account deficit, plus amortization on medium- and long-term debt, plus short-term debt at end of previous period.

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.

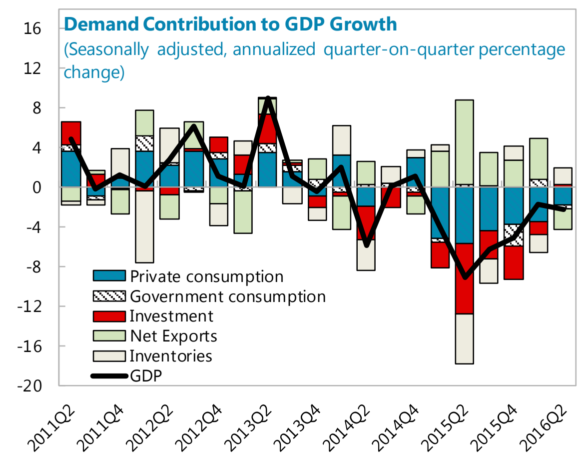
6/ Long-run, constant balance that stabilizes the debt ratio assuming that key variables (real GDP growth, nominal interest rate, dollar deflator growth, and non-debt inflows in percent of GDP) remain at their levels of the last projection year.

Figure 1. Brazil: Recent Developments

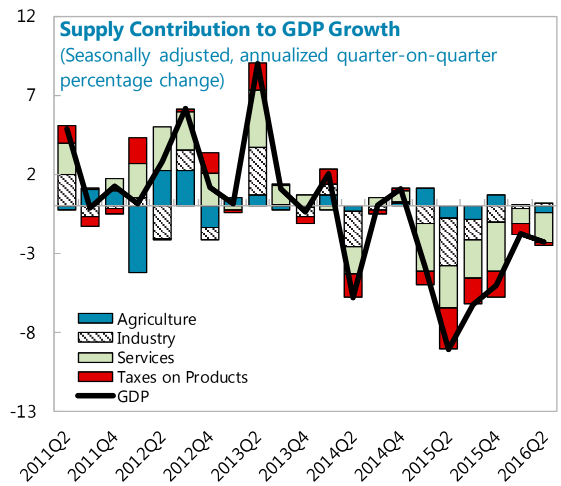
Brazil is still in a deep recession. Activity has contracted in 8 out of the past 10 quarters.



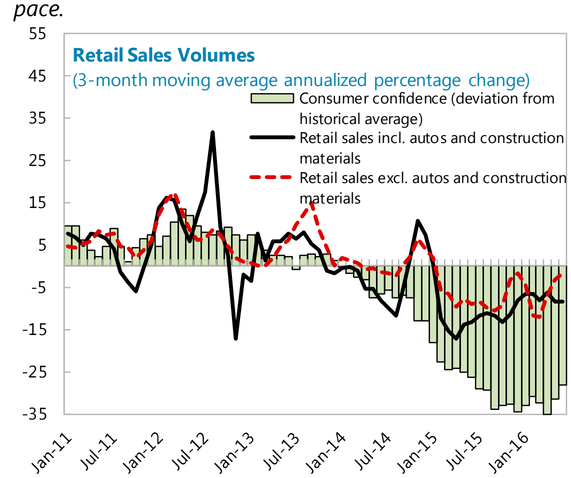
Investment and private consumption have been particularly weak, while net exports have begun boosting growth.



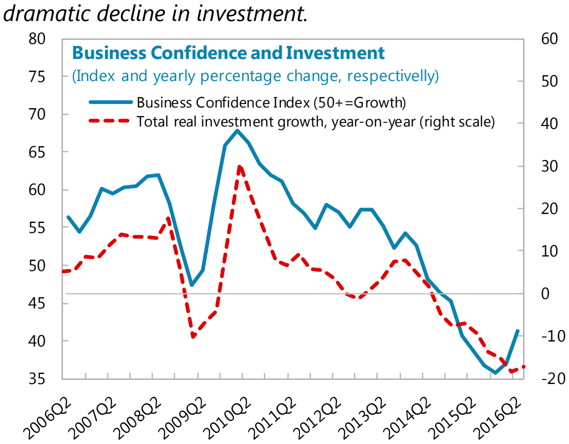
The contraction has been broad based across industries.



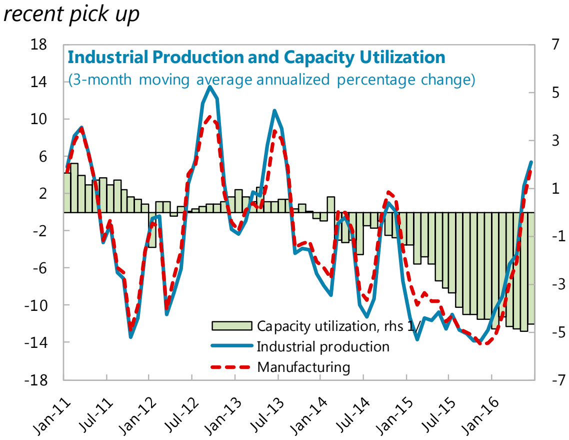
Retail sales continue to contract, albeit at a slightly slower pace.



Deteriorating business confidence has contributed to a dramatic decline in investment.



Industrial production very much below capacity, despite recent pick up

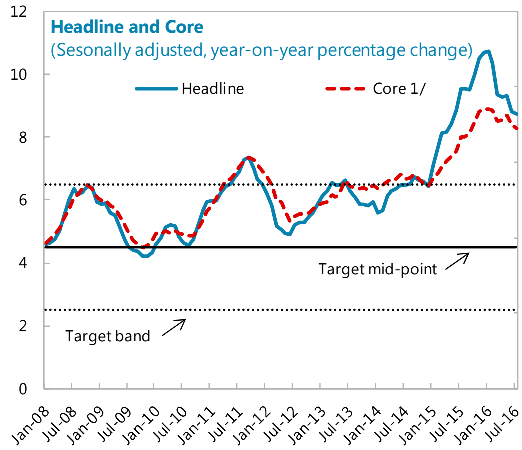


Sources: Haver Analytics, IBGE; and Fund Staff estimates.

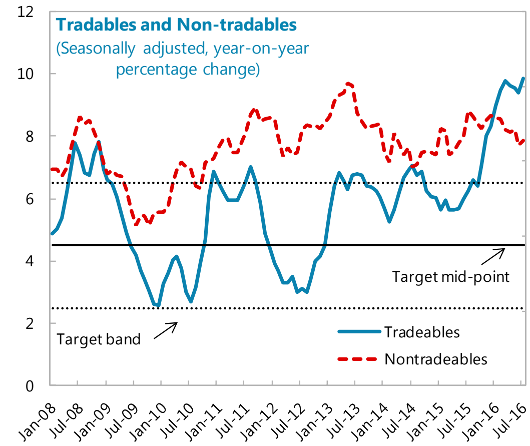
1/ Difference between the current rate and the 10-year average in percentage points.

Figure 2. Brazil: Inflation

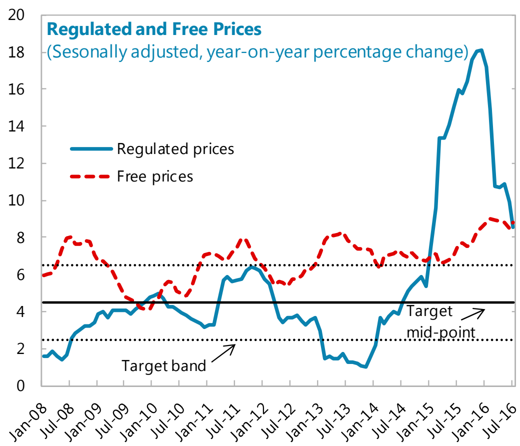
Inflation has been gradually rising over the past several years and spiked to 10.7 percent in December 2015.



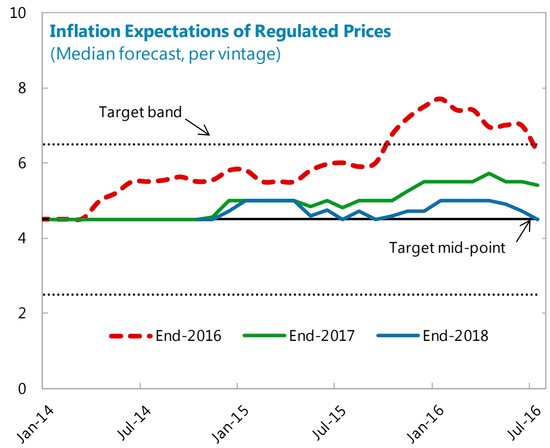
Non-tradable inflation has risen more strongly than tradable inflation since 2010.



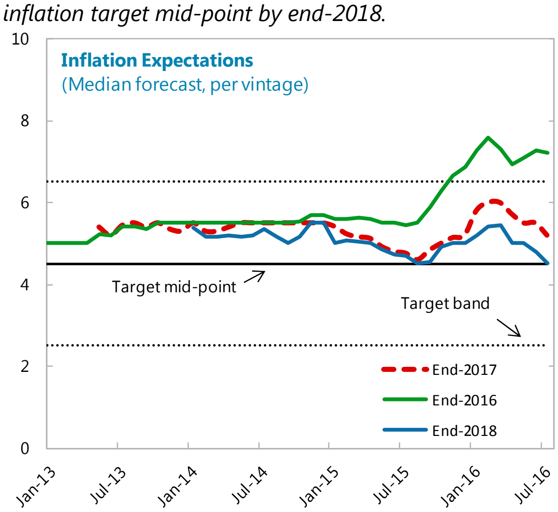
In 2015, regulated-price inflation rose sharply, largely due to a large increase in energy prices, and the exchange rate depreciated. There have been spillovers to free prices.



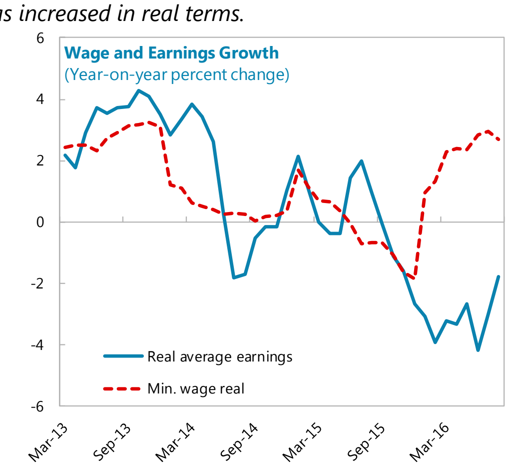
Analysts expect more moderate increases in regulated prices down the road.



After peaking at end-2015, inflation expectations began to moderate, with mid-term expectations converging to the inflation target mid-point by end-2018.



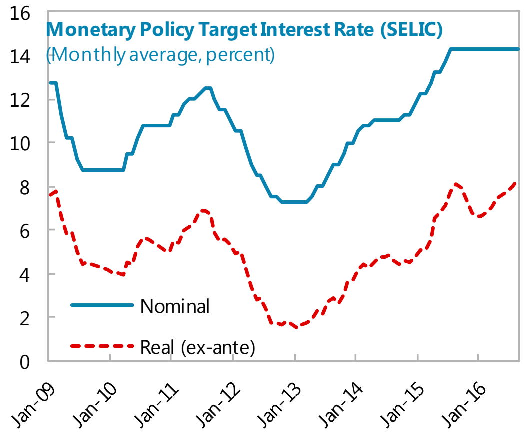
Real average wage has been contracting as labor market conditions have deteriorated, while the minimum wage has increased in real terms.



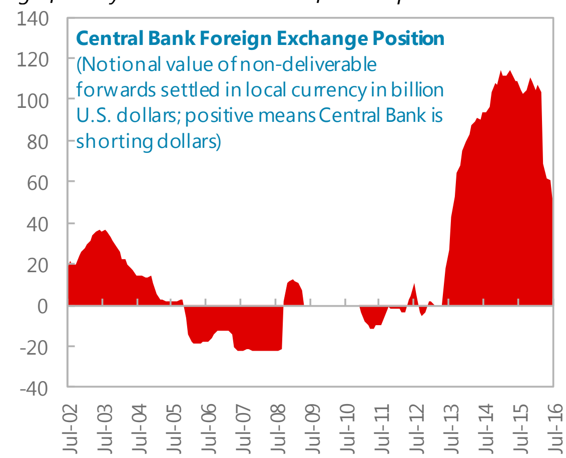
Sources: Haver Analytics, IBGE, and Fund Staff estimates.
1/ Extended Consumer Price Index, Double Weighted (IPCA-DP).

Figure 3. Brazil: Macroeconomic Policies

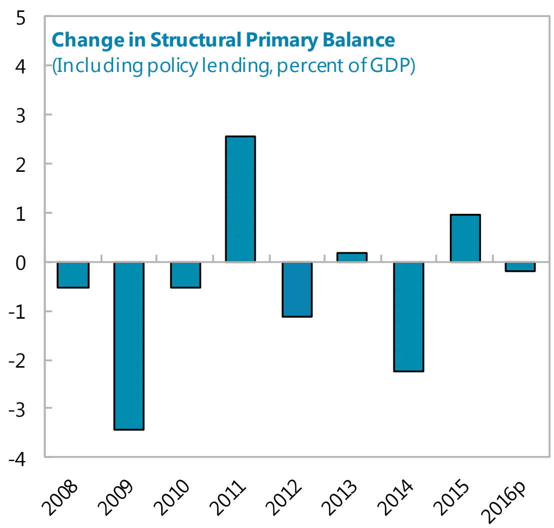
The policy rate was increased to 14.25 percent, where it has stayed for over a year.



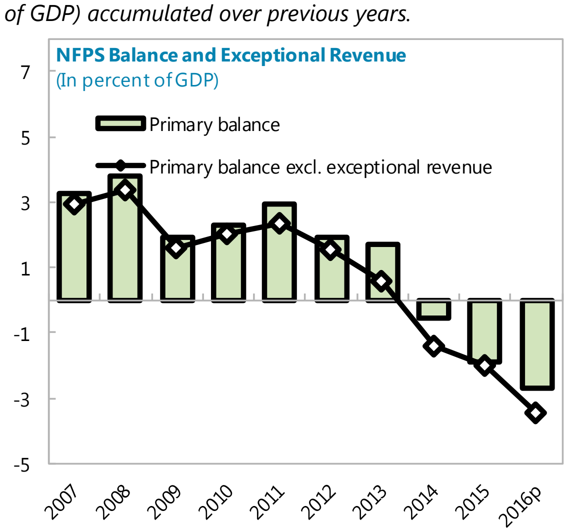
As demand for dollar hedge declined, the central bank has significantly reduced the stock of FX swaps in 2016.



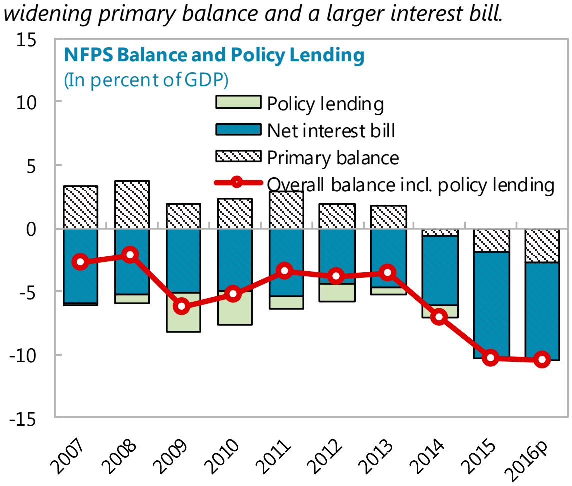
The fiscal stance is mildly expansionary in 2016.



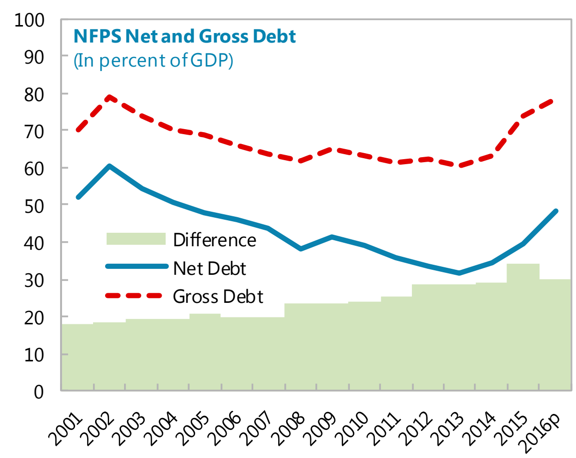
The primary deficit has continued to widen, partly due to the repayment of arrears (amounting to around 1 percent of GDP) accumulated over previous years.



The overall balance continued to deteriorate due a widening primary balance and a larger interest bill.



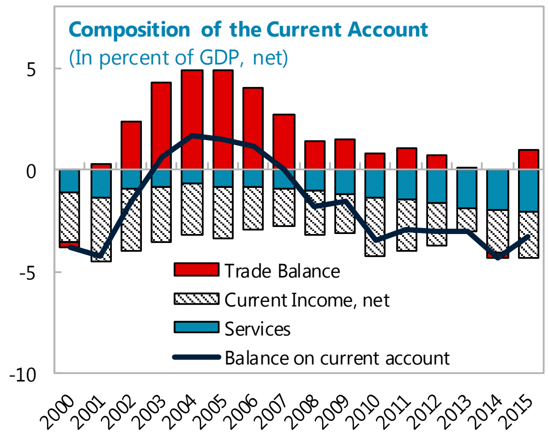
Gross and net debt both risen.



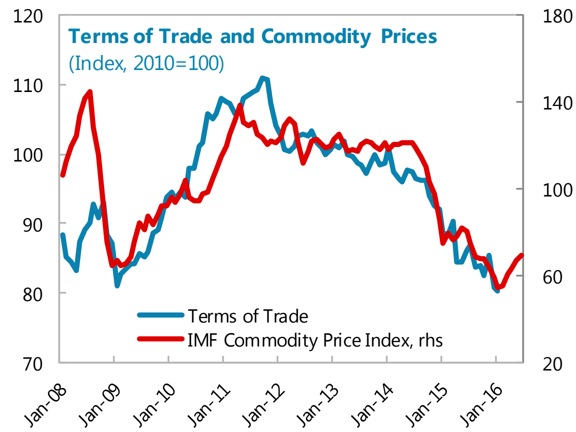
Sources: Central Bank of Brazil, IBGE, Haver Analytics, and IMF Staff calculations.

Figure 4. Brazil: External Sector

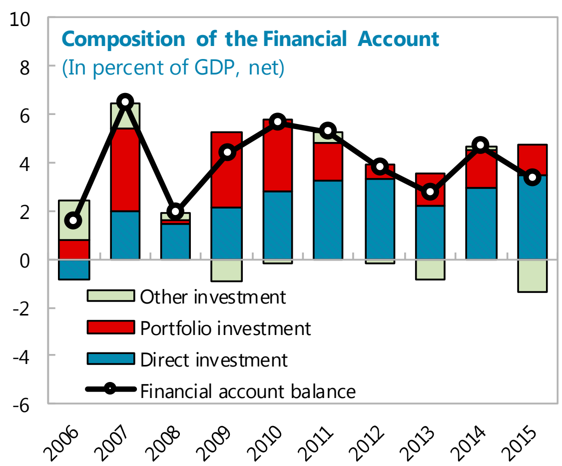
The current account improved over 2015 with the trade balances moving into surplus.



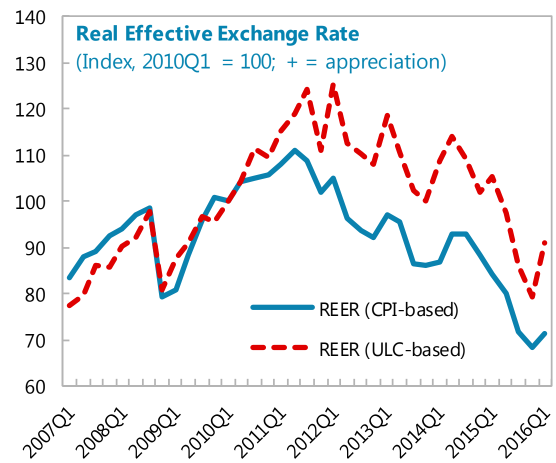
The terms of trade have continued to deteriorate and currently sit at levels last seen in 2009.



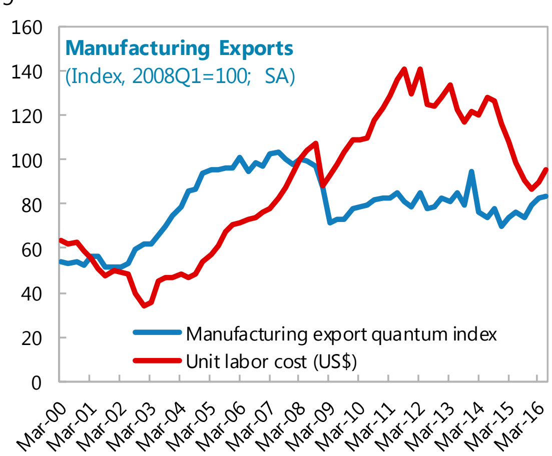
Net capital inflows have edged up amid strong direct investment and portfolio flows.



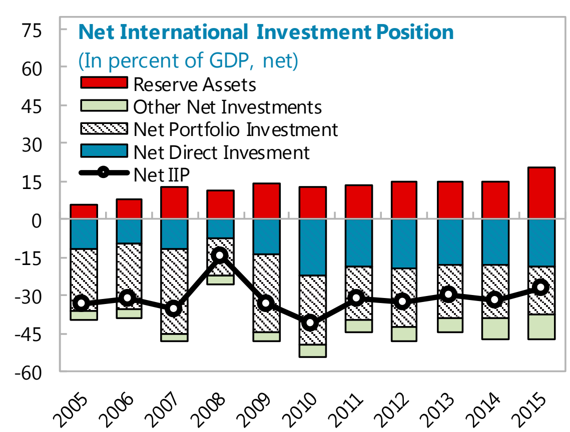
The real effective exchange rate depreciated sharply in 2015.



A reduction in unit labor costs and currency depreciation have contributed to a rise in exports of manufactured goods.



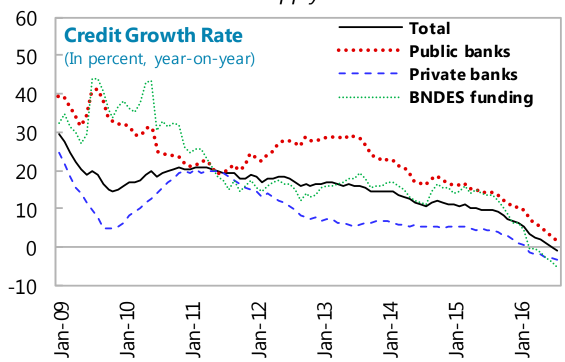
The net international investment position remains broadly stable.



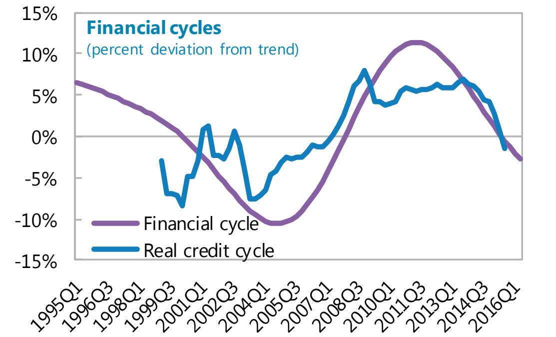
Sources: Central Bank of Brazil, Haver Analytics, and Fund Staff calculations.

Figure 5. Brazil: Financial Sector Indicators

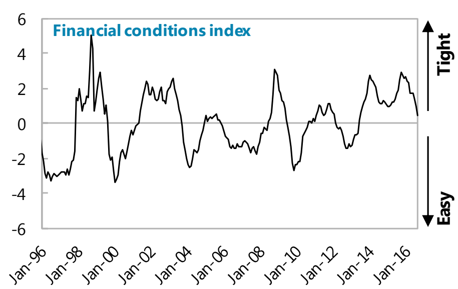
Credit growth decelerated, reflecting both weak loan demand and conservative supply.



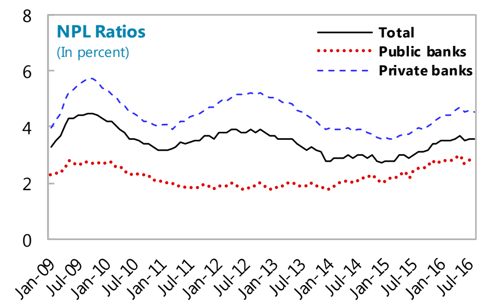
The downturn phase of a financial cycle continued in 2015



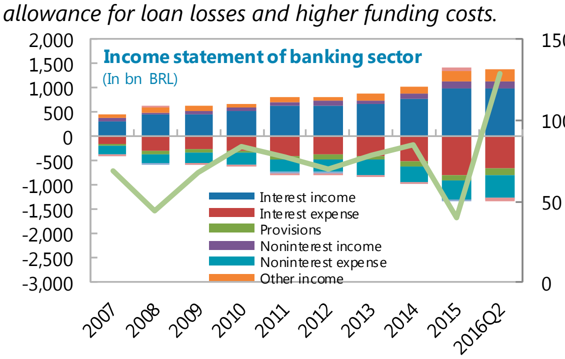
...but financial conditions have improved recently mainly reflecting improved prospects for reform.



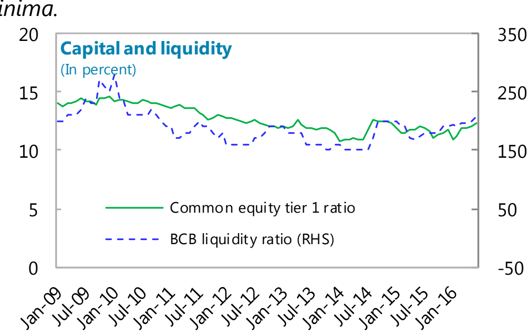
Nonperforming loans have been increasing gradually since 2014.



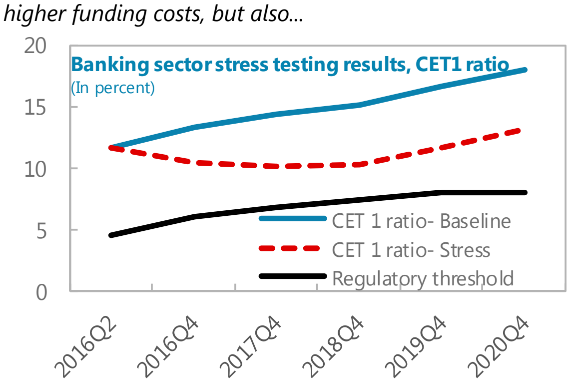
Bank profits have been increasing despite higher allowance for loan losses and higher funding costs.



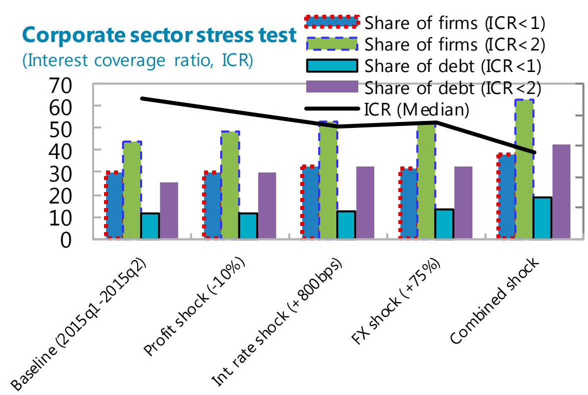
Both capital and liquidity remain above the regulatory minima.



While banks have enough capital to cope with the developments in the baseline scenario, some banks might need to be recapitalized in the stress scenario driven by higher funding costs, but also...



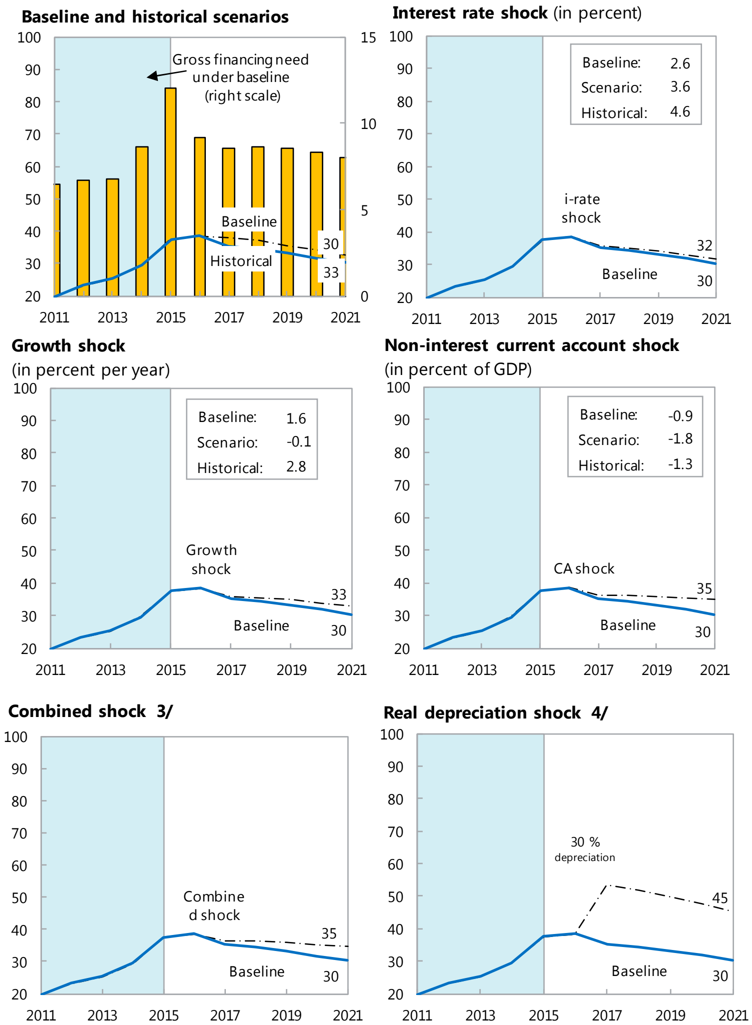
...by losses on corporate loans as debt at risk of the corporate sector would almost double under the stress scenario.



Sources: Central Bank of Brazil, Haver Analytics, Capital IQ, and IMF Staff estimates.

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

(External debt in percent of GDP)



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 2016.

Appendix I. Risk Assessment Matrix

Brazil: Risk Assessment Matrix

Nature/Source of Threat	Likelihood	Expected Impact on Economy	Policy Responses
Failing to pass the proposed spending cap and failing to pass the measures necessary to maintain the cap over the medium term	**M**	***H.*** Fiscal balances would continue to disappoint and fail to stabilize debt. Further loss of confidence would lower investment and growth. Inflationary pressures would remain elevated. Corporates could be vulnerable to capital flow reversals, exchange rate depreciation and higher funding costs. The strains would worsen if banking system soundness deteriorated owing to an increase in NPLs and funding costs and losses on government bonds' holdings.	Strong fiscal adjustment to restore credibility in the fiscal framework and to ensure debt stabilizes. Focus efforts on boosting competitiveness and productivity.
Broadening of the corruption scandal	**M**	***H.*** Prolonged uncertainty would further hamper investment, confidence and growth. A more persistent increase in unemployment increases the threat of social unrest. And there is further damage to the credibility of the policy framework.	Greater efforts to ensure policy credibility. Monetary policy should ensure inflation expectations remain firmly within the tolerance range and exchange rate intervention should be limited to clear cases of market disruption. Fiscal policy should forge ahead with efforts to ensure medium-term debt sustainability.
Protracted period of low growth	**M**	***M*** . Continuous employment destruction leading to a deterioration of households' balance sheet and income resulting in a rise in delinquencies on consumer loans. Lower corporate profits may expose some highly leveraged corporates. Increased financial vulnerabilities among banks with portfolio concentrated in households and corporate loans. Potential knock on effects on public finances. For example, Caixa extends housing loans to low-income families with a government guarantee.	Monitor for signs of emerging domestic financial and corporate vulnerabilities and strengthen safety nets. Smooth out the employment loss by relying on strategies such as reduced hours.
		External Risks	
Sharp rise in risk premia with flight to safety: Investors withdraw from specific risk asset classes as they reassess underlying economic and financial risks in large economies, or respond to unanticipated Fed tightening, and increases in U.S. term premia, with poor market liquidity amplifying volatility. Safe haven currencies—especially the US dollar—surge creates balance sheet strains for FX debtors.	**M**	***H*** . Increasing Brazil's risk premiums, 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.	The flexible exchange rate remains an important shock absorber. Recourse to FX intervention if FX volatility becomes excessive. 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 could be envisaged on a temporary basis but only in crisis type circumstances.
Structurally weak growth in key advanced and emerging economies: Weak demand, low productivity growth, and persistently low inflation from a failure to fully address crisis legacies and undertake structural reforms, leading to lower medium-term path of potential growth (the Euro area, Japan, and the United States) and exacerbating legacy financial imbalances especially among banks (the Euro area) (high likelihood). Tighter financial conditions and insufficient reforms undermine medium-term growth in emerging markets (medium likelihood).	**H/M**	***H/M*** . Worsening current account deficit and weaker growth. Highly indebted corporates could see their profits decline. A sharp decline in commodity prices would have a direct impact on the exporting sector.	Use the exchange rate as first shock absorbers. Limited room for monetary and/or fiscal policy stimulus to smooth shock. Instead, prioritize structural reforms to boost potential growth.
Persistently lower energy prices, triggered by supply factors reversing more gradually than expected.	**L**	***M.*** Mild favorable impact on the trade balance in the short-term, but worsening current account in the medium term, when Brazil is expected to become a net oil exporter. Petrobras could see a decline in the value of its assets and face an increase in borrowing costs, causing delays in on-going investment plans and affecting plans to develop new fields. Banks could face losses on exposures to oil sector.	The requirement for Petrobras's participating in new oil developments should be eased. Domestic pricing policies should ensure Petrobras obtains an adequate return. Tighten governance in the company and enforce strict criteria on capital projects to avoid unnecessary losses.

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 2015

	Brazil: External Sector Assessment 2015	Overall Assessment
Foreign asset and liability position and trajectory	**Background**. Brazil's NIIP improved to -27 percent of GDP in 2015 reflecting in part the real's depreciation. It is projected to remain broadly unchanged over the medium term. 1/ DI accounts for close to half of liabilities (which are 69.7 percent of GDP). Of concern is the rise in external debt since the global financial crisis (to some 350 percent of exports). **Assessment**. The NIIP is comparable to that of Brazil's peers, but the shift in composition of liabilities toward external debt over the last several years is a concern.	**Overall Assessment** *The external position of Brazil in 2015 was moderately weaker than the level consistent with medium-term fundamentals and desirable policy settings.* The subsequent appreciation of the REER as of June 2016 suggests that the REER remains above the level suggested by fundamentals and desirable policies. The current account-to-GDP ratio will likely improve further in 2016 amid subdued domestic demand and the delayed impact of the 2015 depreciation, and despite further worsening of Brazil's ToT. **Potential Policy Responses** Efforts to raise national savings are needed to provide room for a sustainable expansion in investment. Fiscal consolidation, including from social security reform, should contribute to shifting the structure of spending away from consumption. Structural reforms to reduce the cost of doing business would also help strengthen competitiveness. Foreign exchange intervention, including through the use of derivatives, can be appropriate to punctually alleviate disorderly market conditions in the foreign exchange market. The authorities should aim to preserve their foreign reserve buffers.
Current account	**Background**. The current account deficit adjusted sharply in 2015 owing to the real's depreciation and the drop in domestic demand, despite the ToT deterioration. 2/ The deficit fell from 4.3 percent of GDP in 2014 to 3.3 percent in 2015 against a broadly neutral structural fiscal stance. 3/ The deterioration in prices for Brazil's major commodity exports reduced export values by around 1.5 percent of GDP. The CA is projected to improve in 2016 and going forward due to the delayed impact from the depreciation and the slow recovery in demand, even without closing all policy gaps (e.g. fiscal). Brazil's ToT are expected to weaken further under the baseline and remain a downside risk. 4/ However, a larger-than-expected recovery in private demand could widen the deficit unless public savings strengthen. The development of Brazil's off-shore oil potential is no longer projected to contribute significantly to the external adjustment as investment in expansion has been cut back. 5/ **Assessment**. Staff estimates that the CA norm is consistent with fundamentals and desirable policy settings range from 0.25 to -1.5 percent of GDP. 6/ With a cyclically adjusted CA of -2.8 percent, the 2015 CA gap ranged between -1.3 and -3.1 percent of GDP, wider than the EBA gap estimate of 0.1 percent.	
Real exchange rate	**Background**. The REER on average depreciated by 15 percent between 2014 and 2015. After some oscillations, by June 2016, it was some 6 percent above its average 2015 level. The annual average ULC based REER also depreciated by some 15 percent between 2014 and 2015, due to both labor shedding and improvements in cost competitiveness. The nominal exchange rate has been sensitive to political developments and global trends in 2016. **Assessment**. Staff's assessment is that the real was on average some 5−15 percent above the level implied by fundamentals and desirable policy settings in 2015. 6/	
Capital and financial accounts: flows and policy measures	**Background**. Brazil continues to attract sizable capital flows but their composition changed in 2015. Equity liability flows remained strong while debt liability flows fell sharply. Net DI fully financed the CA deficit (DI liabilities totaled 4.3 percent of GDP). The share of intercompany loans in DI liabilities dropped sharply. 7/ Net portfolio debt liabilities, having accounted for more than 1 percent of GDP in previous years, fell to close to zero reflecting downgrades of Brazil's sovereign credit rating and associated corporate downgrades. Interest differentials will continue to attract inflows, but the recession and growing vulnerabilities are expected to weaken investor interest. **Assessment**. While the composition of flows has a favorable risk profile, there is a risk that outflows may increase amid the prolonged recession and growing domestic risks. The currently higher appetite for equity over debt investments may reflect a combination of the depreciation and investors taking a longer-term view.	

	Brazil: External Sector Assessment 2015 (Concluded)		
FX intervention and reserves level	**Background**. Brazil has a floating exchange rate. Since mid-2011, reserves have remained broadly stable. The preannounced intervention program the central bank initiated in 2013 ended in March 2015. Intervention in 2015 continued to rely on the use of FX swaps and FX repos but was symmetric over the course of the year and generally more limited compared to previous years. 8/ During the market turmoil in September, the authorities reacted to excessive volatility largely by providing FX liquidity through FX repos. In March and April of 2016, as the currency strengthened, the BCB reduced the rollover rate of maturing FX swaps and started auctioning reverse FX swaps, significantly reducing its net forward position to some $62 billion as of early June. Brazil's gross reserves remained broadly constant in 2015, at $358 billion, some 20 percent of GDP and 200 percent of short term debt at remaining maturity. **Assessment**. The flexible exchange rate has been an important shock absorber. Reserves are adequate relative to various criteria including the IMF's composite reserve adequacy metric (185 percent). While Brazil's reserve holdings in principle provide some space to intervene, the authorities should aim to retain these buffers and their net creditor position in foreign exchange. Staff would advise only punctually alleviating disorderly market conditions as needed.		
Technical Background Notes	1/ The projection takes valuation effects into account. 2/ Import volumes fell by 15 percent in 2015 due to both import compression and the real's depreciation (between a third and a half of the fall in import demand is attributable to the depreciation). Export volumes rose by 8 percent, but the bulk of the impact of the 2015 depreciation in expected to materialize in 2016, especially for manufacturing exports. 3/ While the cyclically adjusted overall balance would signal a significantly expansionary fiscal stance in 2015, a structural perspective (excluding e.g. BCB losses on FX swaps and the net settlement of previously unreported commitments to public banks) suggests a broadly neutral stance. 4/ At 19 percent of the total, China remains Brazil's most important export destination and accounts for the bulk of Brazil's major commodity exports 5/ Brazil currently features a small oil balance deficit; in the short run, falling oil prices thus strengthen the current account ceteris paribus while they may depress the outlook for oil production in the medium term. 6/ Staff's assessment centers on the current account norm. Estimates suggest a current account norm between -2.7 percent (EBA current account approach) and -1.2 percent (NIIP-stabilizing approach). Staff's assessment of a current account norm range from 0.25 to -1.5 percent (higher than in previous years due to the significant downward revision in the growth outlook) reflects low potential growth, commodity price downside risks, and the objective of avoiding a deterioration in the NIIP over the medium term, and facilitates expenditure switching away from consumption and towards investment. In contrast, EBA REER level and index approaches suggest that the real was undervalued by 2–19 percent on average in 2015. 7/ The strong decline in proceeds from overseas borrowing by foreign incorporated subsidiaries of Brazilian parent companies—chiefly Petrobras—illustrates that the risk profile of these flows is more similar to portfolio debt flows than to other types of DI liabilities. 8/ In the Brazilian FX repo, the Central Bank sells dollars with the commitment to repurchase them at a pre-determined future date. That is, the Central Bank retains a long dollar position following execution of the repo. In the Brazilian FX swap, the Central Bank enters into a contract whereby it agrees to pay the onshore dollar rate on a given notional value plus the variation in the exchange rate, and to receive the SELIC rate on the BRL equivalent (at the moment of initiation) of the given notional value. The net value of these payments is redeemed in local currency. Under this mechanism, the Central bank pays the holder if the BRL depreciates by more than the difference between the SELIC rate and the onshore dollar rate, and receives payment from the holder in the opposite case. This instrument provides hedging to agents with prospective hard currency needs.		

Appendix III. Selected Topics[1]

A. Update on the Infrastructure Program

1. **Have infrastructure pressures subsided in the wake of the recession in Brazil?** Slowing consumption of energy services by the corporate sector and lower traffic demand are providing some relief to the electricity sector and congested roads. However, from a medium-term perspective, making gains in spatial and social integration by expanding the transport network and improving access to basic infrastructure services in an equitable way remains paramount for Brazil's development.

2. **In the years ahead, Brazil will have to "do more with less", by leveraging private finance, optimizing costs and eliminating inefficiencies in service provision.** There are few possibilities available for scaling up infrastructure investment over the near- and medium-term, given a constrained public sector resource envelope and strained private sector balance sheets. While reform needs are numerous, the focus should be on scaling up efforts to boost private sector participation in investment financing, improving investment returns, and increasing efficiency. Projects with private participation should also have transparent accounting practices that recognize contingent liabilities that could impact the public finances.

- **Securing financing**: the government has granted tax benefits for fixed income products created specifically to finance infrastructure investments in 2012. Since then, the importance of infrastructure bonds has grown: 78 infrastructure bonds (totaling R$15.7 billion) associated with projects authorized by the ministries were issued. Over the coming months Brazil will issue a new debenture model featuring income tax incentives, payment of interest throughout the existence of the project, and premium quality guarantee on the debt principal. The government will continue to work with the Inter-American Development Bank Group and the CAF, which have programs to help finance new infrastructure concessions through local financial partners. The CAF program is based on another smaller scale fund created in Colombia to finance the highway concession program. These initiatives are important steps in the right direction, which will have to be accompanied by other measures to improve the attractiveness of projects.

- **Ensuring cost recovery**: underpricing of infrastructure services leads to excess utilization and low revenues, constraining private sector returns and shrinking resources needed for maintenance and new investments. A thorough review of tariff-setting principles might reveal areas for improvement.

- **Improving allocative and productive efficiency**: Brazil is one of the leading Latin American (LA) countries in terms of operational maturity for project management and institutional framework, and lags behind other large LA economies only in terms of investment climate.

[1] Prepared by Flavia Barbosa, Izabela Karpowicz, Carlos Mulas Granados, and Christian Saborowski.

However, across all countries, the entire infrastructure investment process, from planning and project selection to contracting, monitoring and evaluation, often can be strengthened by aligning priorities, streamlining processes, and optimizing financial costs.

3. **The new Investment Partnership Program (PPI), created in May, changed the institutional framework for the implementation of public infrastructure through partnership agreements between the state and the private sector**. The projects will include pre-salt area bidding, energy and sanitation assets, as well as roads, railway, ports and, airports, some of them already included in previous concession programs. Some of the changes introduced in the Investments Partnerships Program (PPI) are:

- increasing the time between the public notice and the auction to 100 days, to encourage the participation of medium-sized and foreign companies;
- calls for tenders can only be announced after preliminary environmental licensing;
- internal rates of return used in the old model will be abandoned;
- bridge loans, previously extended by public and private-sector banks to allow the beginning of investments in the concession until the final long-term loan is approved, will be replaced by guarantees provided by banks or through bonds which would be valid until the concession has its own cash flow (typically 5-7 years), which will serve as collateral to the securities.

4. **The government has created a Council of the Investment Partnership Program (CIPP) in the Presidency and an infrastructure support fund.** The CIPP is in charge of monitoring implementation of the PPI program, formulating policy recommendations and providing guidance to agencies, entities and the federal public administration. The members of the Council with voting rights include the Executive Secretary of the Secretariat of the Investment Partnership Program of the Presidency, which will also act as Executive Secretary of the Council; the Chief Minister of the Civil House; Ministers of Finance, Planning, Development and Management, Transport, Ports and Civil Aviation and the Environment; President of the National Bank for Economic and Social Development (BNDES) and the President of Caixa Economica Federal. The infrastructure fund will support infrastructure partnerships and will be managed by the BNDES which will be in charge of providing specialized professional services for structuring investment partnerships and privatization contracts.

5. **The changes in the institutional framework for regulatory agencies, for which congressional approval is pending, are expected to contribute to greater stability and professionalism in regulation.** The proposal seeks to strengthen the autonomy of the agencies and standardize aspects of management, organization, governance and social control. The regulatory agencies will have an independent budget, and the selection of nominees to compose their management boards will be more rigorous, in order to shield regulatory agencies from

political interference and other forms of capture. Also, deadlines will be set for appointment of new directors, to avoid prolonged periods with vacant positions.

Table 1. Public Investment Pipeline.

Projects	Auction Period
Highways:	
BR-364/365/GO/MG	2017, 2nd semester
BR-101/116/290/386/RS	2017, 2nd semester
Airports:	
Salgado Filho	2017, February
Deputado Luís Eduardo Magalhães	2017, February
Hercílio Luz	2017, February
Pinto Martins	2017, February
Port terminals:	
Santarém (STM 04 e 05)	2017, May
Trigo do Rio de Janeiro	2017, May
Railroads:	
EF-151 SP/MG/GO/TO - Norte-Sul	2017, 2nd semester
EF-170 MT/PA - Ferrogrão	2017, 2nd semester
EF-334/BA	2017, 2nd semester

Source: Casa Civil.

B. Financial Linkages Across Economic Sectors in Brazil—The BSA Matrix

6. **The Balance Sheet Analysis (BSA) is an important tool for the assessment of macro-financial linkages in an economy.** Balance sheets carry information on stocks and can throw light on the state and vulnerabilities of corporates, households and government. At the sectoral level, balance sheet matrices show aggregate exposures, exposures to other sectors, and to the rest of the world, revealing the degree of interconnectedness of the economy, which is important for the propagation of shocks.

7. **The BSA matrix is constructed using several data sources including the MFS, the IIP, and the GFSM among others.** The central government, the state governments and the budgetary public companies (excluding Petrobras and Eletrobras — the largest state-controlled companies in Brazil) are grouped into the government sector.[2] NFCs, typically considered "the Private Sector", include also some nonfinancial corporates in the Public Sector. The BSA matrices for the years 2007 and 2014 allow the comparison of recent estimates with the last "pre-crisis" year. (The way to read these matrices can be illustrated with the top, leftmost entries of Table 1.

[2] This is not an important shortcoming, given limited exposures to other economic sectors.

The central bank held government bonds worth 20 percent of GDP in 2014, while the government deposits at the central bank totaled 12 percent of GDP.)

8. **Brazil's BSA presents some limitations, which are mainly due to data gaps.**[3] No data are available for the relationship between Nonfinancial corporate (NFC) sector and Households (HH) sectors and there is also no information about the maturity structure of assets and liabilities. Moreover, focusing on aggregate sectoral exposures, the BSA analysis ignores potential within-sector risks and specific linkages among sectors. For instance, although overall exposure of the Financial Sector to households may be contained, certain banks specializing in mortgage lending to a segment of population with lower income may be at higher risk during periods of growth slowdown.[4]

Table 1. Brazil: Intersectoral Asset and Liability Positions, end-2014
(Percent of GDP)

Issuer of liability (debtor) / Holder of liability (creditor)	Public Sector						Financial Sector						Nonfinancial Private Sector						Rest of the World		
	Government			Central Bank			Other Depository Corporations and BNDES			Other Financial Corporations			Nonfinancial Corporates			Households			Nonresidents		
	Assets	Liabilities	Net	Assets	Liabilities	Net	Assets	Liabilities	Net	Assets	Liabilities	Net	Assets	Liabilities	Net	Assets	Liabilities	Net	Assets	Liabilities	Net
Government																					
Total				20	12	7	33	12	20	2	12	-11	0	0	0	0	0	0	10	0	10
In domestic currency				20	12	7	33	12	20	2	12	-11	0	0	0	0	0	0	7	0	7
In foreign currency				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3
Central Bank																					
Total	12	20	-7				20	1	19	0	0	0	0	0	0	0	0	0	0	17	-17
In domestic currency	12	20	-7				20	1	20	0	0	0	0	0	0	0	0	0	0	0	0
In foreign currency	0	0	0				0	0	0	0	0	0	0	0	0	0	0	0	0	17	-17
Oth. Dep. Corporations																					
Total	12	33	-20	1	20	-19				8	9	-1	54	45	9	25	23	2	11	4	7
In domestic currency	12	33	-20	1	20	-20				8	9	-1	54	44	10	25	23	2	1	0	1
In foreign currency	0	0	0	0	0	0				0	0	0	1	1	-1	0	0	0	10	4	6
Oth. Fin Corporations																					
Total	12	2	11	0	0	0	9	8	1				0	5	-4	11	0	11	0	0	0
In domestic currency	12	2	11	0	0	0	9	8	1				0	5	-4	11	0	11	0	0	0
In foreign currency	0	0	0	0	0	0	0	0	0				0	0	0	0	0	0	0	0	0
Nonfinancial Corporates																					
Total	0	0	0	0	0	0	45	54	-9	5	0	4							51	16	36
In domestic currency	0	0	0	0	0	0	44	54	-10	5	0	4							40	16	24
In foreign currency	0	0	0	0	0	0	1	1	1	0	0	0							11	0	11
Households																					
Total	0	0	0	0	0	0	23	25	-2	0	11	-11							0	0	0
In domestic currency	0	0	0	0	0	0	23	25	-2	0	11	-11							0	0	0
In foreign currency	0	0	0	0	0	0	0	0	0	0	0	0							0	0	0
Nonresidents																					
Total	0	11	-11	17	0	17	4	11	-7	0	0	0	16	51	-36	0	0	0			
In domestic currency	0	7	-7	0	0	0	0	1	-1	0	0	0	16	40	-24	0	0	0			
In foreign currency	0	3	-3	17	0	17	4	10	-6	0	0	0	0	11	-11	0	0	0			
Total	37	65	-28	38	33	5	135	112	23	15	33	-18	70	101	-31	36	24	13	73	37	36
In domestic currency	37	62	-24	20	33	-13	129	101	29	15	33	-18	70	89	-19	36	24	12	48	16	33
In foreign currency	0	3	-3	18	0	17	6	11	-6	0	0	0	1	13	-12	0	0	0	25	21	3

[3] For an in-depth discussion of BSA matrix data gaps refer to "Balance Sheet Analysis in Fund Surveillance," Policy Paper and Reference Note, International Monetary Fund.
[4] The BSA matrix does not include insurance companies or asset managers, which are large players in Brazil.

Table 2. Brazil: Intersectoral Asset and Liability Positions, end-2007

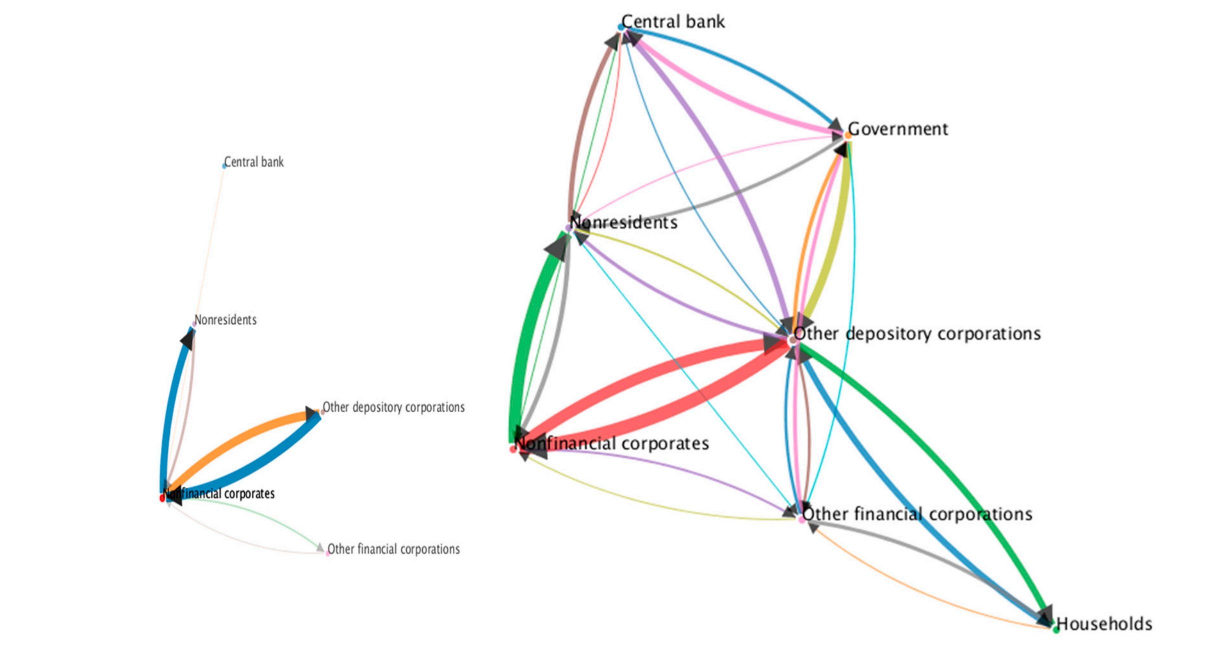
(Percent of GDP)

Issuer of liability (debtor) / Holder of liability (creditor)	Public Sector						Financial Sector						Nonfinancial Private Sector						Rest of the World		
	Government			Central Bank			Other Depository Corporations and BNDES			Other Financial Corporations			Nonfinancial Corporates			Households			Nonresidents		
	Assets	Liabilities	Net	Assets	Liabilities	Net	Assets	Liabilities	Net	Assets	Liabilities	Net	Assets	Liabilities	Net	Assets	Liabilities	Net	Assets	Liabilities	Net
Government																					
Total				13.3	10.2	3.1	38.5	3.1	35.4	2.7	13.5	-10.8	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.2	5.5
In domestic currency				13.2	10.2	3.1	38.5	3.1	35.4	2.7	13.5	-10.8	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.2	5.5
In foreign currency				0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Central Bank																					
Total	10.2	13.3	-3.1				12.0	1.0	11.0	0.0	0.0	0.0	0.4	0.0	0.4	0.0	0.0	0.0	1.1	12.8	-11.7
In domestic currency	10.2	13.2	-3.1				12.0	1.0	11.0	0.0	0.0	0.0	0.4	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
In foreign currency	0.0	0.1	-0.1				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	12.8	-11.7
Oth. Dep. Corporations																					
Total	3.1	38.5	-35.4	1.0	12.0	-11.0				12.0	7.5	4.5	45.6	27.5	18.1	18.3	13.5	4.8	7.5	3.0	4.4
In domestic currency	3.1	38.5	-35.4	1.0	12.0	-11.0				11.9	7.4	4.5	45.2	26.2	19.1	18.3	13.5	4.8	0.9	0.0	0.9
In foreign currency	0.0	0.0	0.0	0.0	0.0	0.0				0.2	0.2	0.0	0.4	1.3	-0.9	0.0	0.0	0.0	6.5	3.0	3.5
Oth. Fin Corporations																					
Total	13.5	2.7	10.8	0.0	0.0	0.0	7.5	12.0	-4.5				0.6	10.2	-9.6	12.6	0.6	12.0	0.0	0.0	0.0
In domestic currency	13.5	2.7	10.8	0.0	0.0	0.0	7.4	11.9	-4.5				0.6	10.2	-9.6	12.6	0.6	12.0	0.0	0.0	0.0
In foreign currency	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.0				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nonfinancial Corporates																					
Total	0.0	0.0	0.0	0.0	0.4	-0.4	27.5	45.6	-18.1	10.2	0.6	9.6							57.1	10.6	46.5
In domestic currency	0.0	0.0	0.0	0.0	0.4	-0.4	26.2	45.2	-19.1	10.2	0.6	9.6							48.3	10.6	37.7
In foreign currency	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.4	0.9	0.0	0.0	0.0							8.8	0.0	8.8
Households																					
Total	0.0	0.0	0.0	0.0	0.0	0.0	13.5	18.3	-4.8	0.6	12.6	-12.0							0.0	0.0	0.0
In domestic currency	0.0	0.0	0.0	0.0	0.0	0.0	13.5	18.3	-4.8	0.6	12.6	-12.0							0.0	0.0	0.0
In foreign currency	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0							0.0	0.0	0.0
Nonresidents																					
Total	0.2	5.7	-5.5	12.8	1.1	11.7	3.0	7.5	-4.4	0.0	0.0	0.0	10.6	57.1	-46.5	0.0	0.0	0.0			
In domestic currency	0.2	5.7	-5.5	0.0	0.0	0.0	0.0	0.9	-0.9	0.0	0.0	0.0	10.6	48.3	-37.7	0.0	0.0	0.0			
In foreign currency	0.0	0.0	0.0	12.8	1.1	11.7	3.0	6.5	-3.5	0.0	0.0	0.0	0.0	8.8	-8.8	0.0	0.0	0.0			
Total	27.0	60.2	-33.2	27.1	23.6	3.4	102.0	87.5	14.6	25.6	34.3	-8.7	57.2	94.7	-37.6	30.9	14.1	16.8	71.3	26.6	44.8
In domestic currency	27.0	60.1	-33.1	14.2	22.6	-8.4	97.5	80.4	17.2	25.4	34.1	-8.8	56.8	84.7	-27.9	30.9	14.1	16.8	54.9	10.8	44.1
In foreign currency	0.0	0.1	-0.1	12.9	1.1	11.8	4.5	7.1	-2.6	0.2	0.2	0.0	0.4	10.1	-9.7	0.0	0.0	0.0	16.4	15.8	0.6

9. **A useful complement to the BSA is the network map.** The network map offers a graphical representation of the size and direction of sectoral interlinkages, pointing to possible areas that may benefit from in-depth analysis. The nodes in the network map in Figure 1 represent the total size of the sector's liability exposure, while the links between the nodes outline the direction and size of the gross exposure. For example, the size of NFCs liabilities to Nonresidents was 51 percent of GDP in 2014, as in the BSA matrix in Table 1, and it is represented as a gross arrow going from the NFC to the Nonresident sector. The small figure on the left separates the linkages from the NFC sector to other economic sectors.

Figure 1. Intersectoral Gross Liabilities Network Map, 2014

(Percent of GDP)



10. **The BSA matrices and the network map (Tables 1, 2 and Figures 1, 2) show the system's increasing depth and connectedness.** Gross assets of all sectors at end-2014 amounted to 416 percent of GDP, against 341 percent of GDP in 2007. Other financial institutions (OFIs) in particular have become more important over time, in terms of size and connectedness. Almost two thirds of the growth of total assets could be ascribed to the expansion of ODCs' assets against the private nonfinancial sector. ODCs and NFCs are the largest issuers of gross liabilities in the system. However, while declining somewhat since 2007, the government's net liability position remains the most dominant.

11. **Foreign currency exposure of NFCs increased on account of higher external borrowing.** The Central Bank accounts for a sizeable amount of reserves, but the public sector's foreign currency assets and liabilities as a share of total system's assets and liabilities are limited. ODCs' gross foreign currency liabilities to Nonresidents have increased but the net currency exposures remain modest. The highest exposure is seen in the NFC sector, where foreign bond issuance picked up in recent years. The oil company Petrobras alone had about US$130 million alone in foreign debt at end-2014.

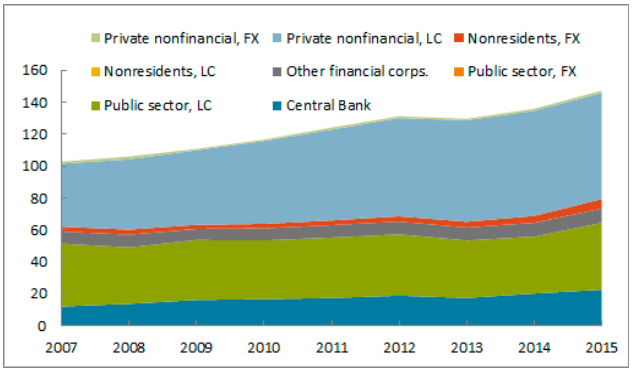
12. **Exposure to the Nonresident sector increased.** The government became more reliant on financing from abroad, and NFCs' net liabilities to Nonresidents appear to have increased too. This may understate the growth of external borrowing of this sector to the extent that a part of offshore bond issuances by foreign incorporated subsidiaries of Brazilian parent companies are not repatriated through intercompany loans.

Figure 2. Gross Claims and Liabilities to Other Sectors, 2007–15

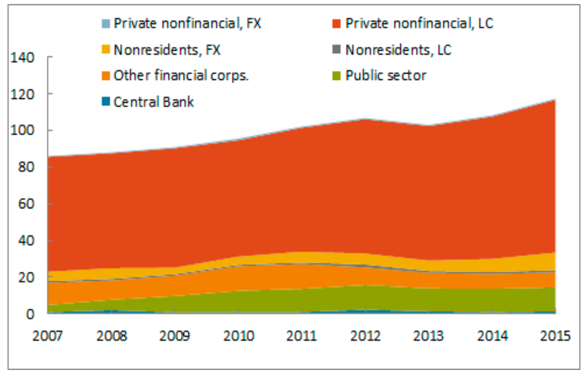
(Percent of GDP)

Other Depository Corporations

Claims

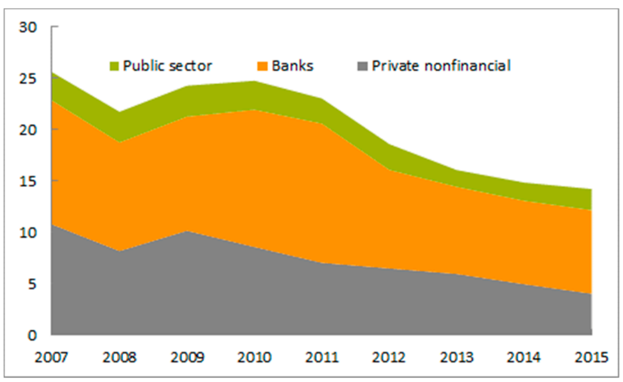


Liabilities

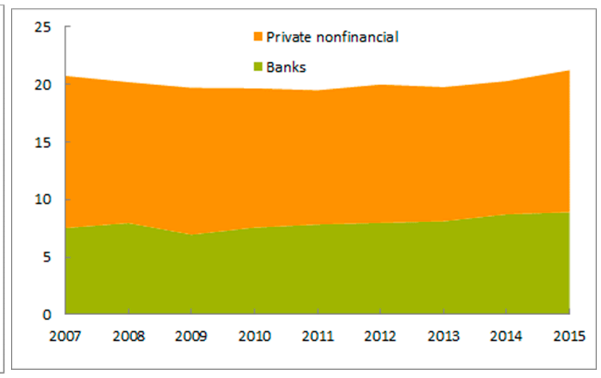


Other Financial Corporations

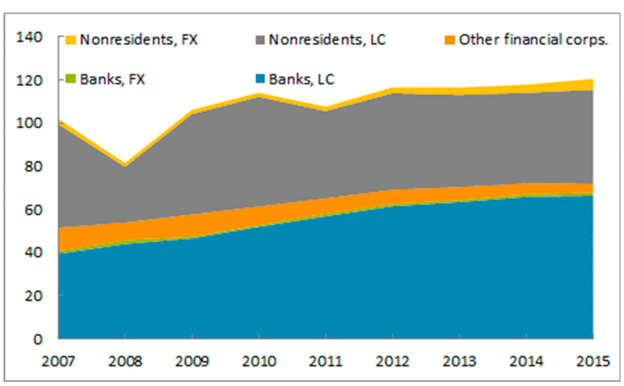
Claims



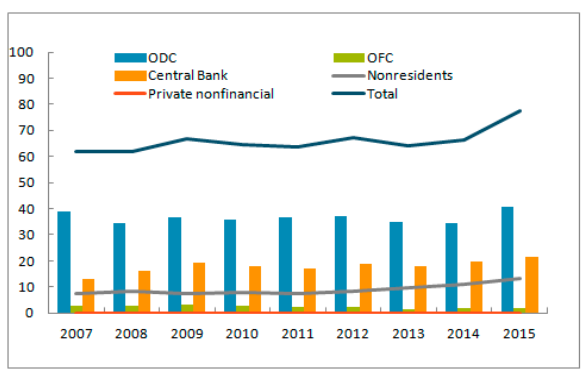
Liabilities



Private Nonfinancial Sector Liabilities



Nonfinancial Public Sector Liabilities



Sources: Banco Central do Brasil and Tesouro Nacional; based on MFS, IIP and debt statistics.

13. **While those sectors which were net debtors in 2007 remained net debtors through 2014, some changes in net liability positions since the global crisis are notable.** The net liability position of ODCs and NFCs improved (Table 1, Appendix I), but the net position of Other financial corporations (OFC)s and that of the HHs sector worsened. The net liability position of the Public Sector (the government and the Central Bank) improved albeit marginally. While the extent of these changes is small relative to those seen in the U.S. balance sheets over the same period, they are notable considering the initial depth of the financial sector in Brazil and the strength of sectoral inter-linkages.

14. **Government policies have contributed to some changes in the liability positions described above over the period 2007–14.** First, the pickup of government liabilities to the Central Bank reflects the issuance, in 2010, of securities, which the Central Bank uses for monetary policy purposes.[5] In fact, the growth of Central Bank liabilities to ODCs in Figure 2 reflect the increasing role of repo operations in liquidity management. Second, the government also made a deliberate transfer of securities, in the aftermath of the crisis and over the following years, to public banks to support countercyclical fiscal stimulus. This increased banks' holding of government paper but also allowed banks to step up lending, thus contributing to financial deepening. Indeed, Caixa stepped up mortgage lending to HHs, while the BNDES increased lending to businesses. ODCs (excluding BNDES) fund their lending activity manly through domestic deposits (64.4 percent of GDP), with loan to deposit ratio amounting to over 99 percent in 2014. Their strong liquidity position up to 2014 was made possible also by increased NFCs cash holdings, the counterparty of which is higher company debt.

15. **Developments in 2015 altered the size of some intersectoral exposures in the BSA matrix.** Reflecting a high overall deficit, Government liabilities increased by 10 percentage points of GDP. About 16 percent of gross debt was held by non-residents and 25 percent by financial institutions. Because of the steep depreciation of the real, Central Banks' foreign assets increased by 3 percentage points to 24 percent of GDP. Total net liabilities of ODCs improved by 2 percentage points of GDP. Yet, their net exposure to NFCs' increased by almost 6 percentage points of GDP and net liabilities to the Public sector decreased by a similar amount due to their higher holdings of government securities. Net liabilities to Nonresidents remained broadly unchanged. Issuances of debt instruments by the NFC sector foreign slowed down because of weak demand and amounted to 2.5 percent of GDP (of which 2 percent of GDP were domestic). The direction of overall net sectoral interlinkages in the BSA remained unchanged.

[5] Government assets at the central bank are the TSA deposits used for precautionary policy and for the repayment of short-term debt obligations.

Balance Sheets Matrix, Data Sources and Notes

Table 3. Brazil: Change in Gross Intersectoral Asset and Liability Positions
(Change 2007–14, percent of GDP)

Issuer of liability (debtor) / Holder of liability (creditor)	Public Sector						Financial Sector						Nonfinancial Private Sector						Rest of the World		
	Government			Central Bank			Other Depository Corporations and BNDES			Other Financial Corporations			Nonfinancial Corporates			Households			Nonresidents		
	Assets	Liabilities	Net	Assets	Liabilities	Net	Assets	Liabilities	Net	Assets	Liabilities	Net	Assets	Liabilities	Net	Assets	Liabilities	Net	Assets	Liabilities	Net
Government																					
Total				6.3	2.1	4.2	-5.6	9.4	-15.0	-1.0	-1.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	4.5	-0.1	4.6
In domestic currency				6.4	2.1	4.3	-5.6	9.4	-15.0	-1.0	-1.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1.7	-0.1	1.8
In foreign currency				-0.1	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0	3.4
Central Bank																					
Total	2.1	6.3	-4.2				8.2	0.0	8.2	0.0	0.0	0.0	-0.2	0.0	-0.2	0.0	0.0	0.0	-0.9	4.3	-5.2
In domestic currency	2.1	6.4	-4.3				8.2	-0.5	8.6	0.0	0.0	0.0	-0.2	0.0	-0.2	0.0	0.0	0.0	0.0	0.0	0.0
In foreign currency	0.0	-0.1	0.1				0.0	0.5	-0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.9	4.3	-5.2
Oth. Dep. Corporations																					
Total	9.4	-5.6	15.0	0.0	8.2	-8.2				-4.0	1.2	-5.2	8.8	17.9	-9.1	6.7	9.8	-3.1	3.4	1.2	2.1
In domestic currency	9.4	-5.6	15.0	-0.5	8.2	-8.6				-3.9	1.3	-5.2	8.5	17.9	-9.4	6.7	9.8	-3.1	0.0	0.0	0.0
In foreign currency	0.0	0.0	0.0	0.5	0.0	0.5				-0.1	-0.1	0.0	0.3	-0.1	0.3	0.0	0.0	0.0	3.3	1.2	2.1
Oth. Fin Corporations																					
Total	-1.1	-1.0	-0.1	0.0	0.0	0.0	1.2	-4.0	5.2				-0.3	-5.6	5.3	-1.4	-0.2	-1.1	0.0	0.1	-0.1
In domestic currency	-1.1	-1.0	-0.1	0.0	0.0	0.0	1.3	-3.9	5.2				-0.3	-5.6	5.3	-1.4	-0.2	-1.2	0.0	0.0	0.0
In foreign currency	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	0.0				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	-0.1
NFCs																					
Total	0.0	0.0	0.0	0.0	-0.2	0.2	17.9	8.8	9.1	-5.6	-0.3	-5.3							-5.8	5.0	-10.8
In domestic currency	0.0	0.0	0.0	0.0	-0.2	0.2	17.9	8.5	9.4	-5.6	-0.3	-5.3							-8.4	5.0	-13.4
In foreign currency	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.3	-0.3	0.0	0.0	0.0							2.6	0.0	2.6
HHs																					
Total	0.0	0.0	0.0	0.0	0.0	0.0	9.8	6.7	3.1	-0.2	-1.4	1.1							0.0	0.0	0.0
In domestic currency	0.0	0.0	0.0	0.0	0.0	0.0	9.8	6.7	3.1	-0.2	-1.4	1.2							0.0	0.0	0.0
In foreign currency	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0							0.0	0.0	0.0
External																					
Total	-0.1	5.1	-5.2	4.3	-0.9	5.2	1.2	3.4	-2.1	0.1	0.0	0.1	5.0	-5.8	10.8	0.0	0.0	0.0			
In domestic currency	-0.1	1.7	-1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	-8.4	13.4	0.0	0.0	0.0			
In foreign currency	0.0	3.4	-3.4	4.3	-0.9	5.2	1.2	3.3	-2.1	0.1	0.0	0.1	0.0	2.6	-2.6	0.0	0.0	0.0			
Total	10.3	4.8	5.5	10.6	9.3	1.3	32.7	24.2	8.5	-10.7	-1.5	-9.1	13.3	6.5	6.8	5.3	9.6	-4.3	1.9	10.6	-8.7
In domestic currency	10.3	1.5	8.8	5.9	10.2	-4.3	31.6	20.3	11.3	-10.6	-1.4	-9.2	13.1	3.9	9.1	5.3	9.6	-4.3	-6.6	4.9	-11.5
In foreign currency	0.0	3.3	-3.3	4.7	-0.9	5.6	1.1	4.0	-2.9	0.0	-0.1	0.1	0.3	2.5	-2.3	0.0	0.0	0.0	8.5	5.6	2.8

Standard Data Sources for the BSA

Central Bank of Brazil
Ministry of Industry, Commerce and Tourism, Secretariat of Foreign Commerce (SECEX)
Brazilian Institute of Statistics and Geography (IBGE)

Central Bank:

Consists of the Central Bank of Brazil (CBB) only.

Beginning in July 2007, data are based on a standardized report form (SRF) for central banks, which accords with the concepts and definitions of the IMF's *Monetary and Financial Statistics Manual* (*MFSM*), 2000. Departures from the *MFSM* methodology are explained below. Securities lending backed by securities is treated as a transaction and included in *Other Items (Net)* rather than recorded off-balance sheet. Loans to financial corporations in liquidation are valued at market price rather than at nominal value. For December 2001 through June 2007, data in the SRF format are compiled from pre-SRF data, which are not fully based on the *MFSM* methodology. Departures from the *MFSM* methodology are explained below. Financial assets and liabilities for which economic sectorization is unavailable are allocated to the economic sector having the largest volume of transactions in the category. *Foreign Assets* are partly calculated using balance of payments data rather than entirely calculated from the balance sheet of the BCB. *Shares and Other Equity* includes some provisions for losses. Accounts receivable and payable are included in *Other Items (Net)* rather than in the CBB's claims on or liabilities to the corresponding economic sectors. Securities lending backed by securities is treated as a transaction and included in *Other Items (Net)* rather than recorded off-balance sheet. Some securities other than shares issued by the central government are valued at acquisition cost rather than at current market price or fair value. Loans to financial corporations in liquidation are valued at market price rather than at nominal value.

Other Depository Corporations:

Comprises commercial banks, Bank of Brazil; multiple banks; Federal Savings Bank; investment banks; National Bank for Economic and Social Development (BNDES); development banks; finance and investment companies; housing credit companies, mortgage companies; money market financial investment funds; and savings, loans, and credit cooperatives. Beginning in December 2004, data are based on a standardized report form (SRF) for other depository corporations, which accords with the concepts and definitions of the *Monetary and Financial Statistics Manual* (*MFSM*). For other depository corporations in Brazil, departures from the *MFSM* methodology are explained below. Some data for other depository corporations were not directly distinguished from data for other financial corporations, in which case separation is derived by using counterparty records with residual amounts allocated to the private sector. For December 2001 through November 2004, coverage of other depository corporations excludes credit cooperatives. Data in the SRF format are compiled from pre-SRF data, which are not fully based on the *MFSM* methodology. Departures from the *MFSM* methodology are explained below. Financial assets and liabilities for which economic sectorization is unavailable are allocated to the economic sector having the largest volume of transactions in the category. Though some data for other depository corporations were not directly distinguished from data for other financial corporations, separation of the data was based on the characteristics of the financial asset or liability. Loans to other financial corporations are included in *Other Items (Net)*. *Loans* include some loans from other depository corporations. *Claims on Other Financial Corporations* includes debentures issued by other nonfinancial corporations. *Other Deposits Included in Broad Money* includes some deposits of other depository corporations. *Deposits Excluded from Broad Money* includes other deposits of other financial corporations and nonresidents. *Shares and Other Equity* includes provisions for loan losses. Some financial derivatives and accounts receivable and payable are included in *Other Items (Net)* rather than in the other depository corporations' claims on or liabilities to the corresponding economic sectors.

Other Financial Corporations:

Comprises leasing companies, stock brokerage houses, distributor companies, and fostering agencies. Beginning in December 2006, includes closed pension funds, non-money market financial investment funds, microfinance societies, and exchange banks. Data exclude insurance corporations, open pension funds, capitalization funds, and exchange houses.

Data are based on a standardized report form (SRF) for other financial corporations, which accords with the concepts and definitions of the *Monetary and Financial Statistics Manual* (*MFSM*). For other financial corporations in Brazil, departures from the *MFSM* methodology are explained below. Data for the closed pension funds are available only on a quarterly basis. Data for the intervening months and the two months after the latest quarter are estimated by carrying forward the data for the last month of the previous quarter. Some data for other depository corporations were not directly distinguished from data for other financial corporations, in which case separation is derived by using counterparty records with residual amounts allocated to the private sector. For December 2001 through November 2006, data in the SRF format are compiled from pre-SRF data, which are not fully based on the *MFSM* methodology. For other financial corporations in the Brazil, departures from the *MFSM* methodology are explained below. Financial assets and liabilities for which financial instrument breakdown is unavailable are allocated to the financial instrument having the largest volume of transactions in the category. Though some data for other financial corporations were not directly distinguished from data for other depository corporations, separation of the data was based on the characteristics of the financial asset or liability. *Claims on Depository Corporations* includes some deposits with other financial corporations and shares and other equity issued by other financial corporations and private sector. *Shares and Other Equity* includes provisions for loan losses. Some financial derivatives and accounts receivable and payable are included in *Other Items (Net)* rather than in the other financial corporations' claims on or liabilities to the corresponding economic sectors.

Nonresident sector:

The total liabilities to NFCs according to the IIP include some OFC liabilities, which are not captured as OFCs in the MFS due to incomplete coverage. In addition, the total IIP number is adjusted by the difference between MFS and IIP in ODC external liabilities, which is due to MMFs being included as "other sectors" in the IIP total.

Government Finance:

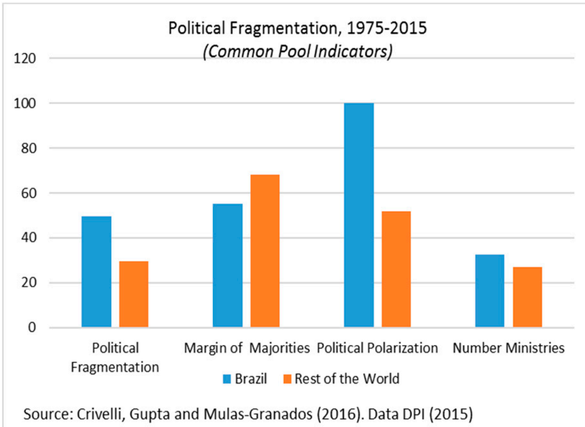
Operations Statement data are from the Central Bank and Ministry of Finance. The Central Bank of Brazil revised the data series for financial data (flows and stocks), correcting some classification and consolidation problems. In the Balance Sheet, beginning December 2006 onwards, the Central/General Government Gross Debt excludes the Central Government securities that are under the Central Bank's outright ownership. The financial asset "currency and deposits" was corrected by the same amount. (For additional information on this methodological break, please consult the note published by the Central Bank of Brazil in http://www.bcb.gov.br/ftp/notaecon/ni200802pfi.zip.)

C. The Impact of Political Fragmentation on Public Debt

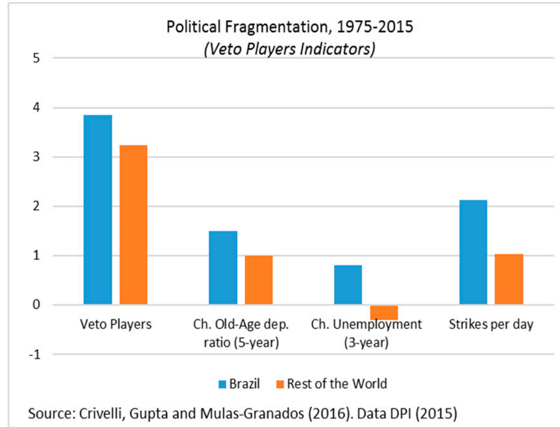
16. **Fiscal policy is the area of macroeconomic policy most directly intertwined with politics**. The reason is that fiscal policy is mostly about redistribution across individuals, regions and generations: the core of political conflict. The common consensus among economists is that there are increasing marginal costs of public deficit and debt. This raises the question of why countries still spend beyond their means and risk not being able to cope with their financial situation by accumulating long-term and excessive public debt. The political economy literature in this field emphasizes the need to take into account the role that political factors have on fiscal policy. There are two distorting political forces affecting policy choice. First, the incumbents desire to retain power, which could lead to opportunistic behavior and the strategic use of debt. Second, the degree of polarization in a society gives rise to a degree of social and ideological conflict that reflects in the degree of government fragmentation and puts pressure fiscal policy (Mulas-Granados, 2006; Alesina and Passalacqua, 2015).

17. **Political fragmentation is a key source of fiscal pressure, debt accumulation and delayed stabilization**. Two alternative theories predict that political fragmentation is associated with higher deficits and debt. The *common pool theory* predicts that as the number of parties in government grows the pressure on deficits and debt increases, because each party serves its own privileged group while only facing part of the associated tax burdens (Weingast, Shepsle and Johnsen, 1981). The veto players' theory predicts that when the number of players increase and their ideological distance grows, policy changes become more difficult to pass, making public debt reductions more unlikely (Tsebelis, 2002). A wide body of empirical research using data from advanced economies has demonstrated these theories are correct: minority governments, divided legislatures, coalition and multiparty cabinets, with a large number of ministers, are all associated with higher deficits and debt. More recent evidence from a sample of 92 advanced, emerging and developing economies from 1975 to 2015 shows that traditional indicators of political fragmentation (from both *common pool* and *veto player* theories) are associated with average increases in public debt (Crivelli, Gupta and Mulas-Granados, 2016).

18. **Brazil has traditionally had a very fragmented political system**. When compared with a sample containing a large number of countries Brazil shows on average a higher level of political fragmentation, a lower margin of parliamentary majorities, a higher ideological polarization, and a higher number of spending ministries. In addition, Brazil has a larger number of veto player's than the average, and confronts an aging population, a growing unemployment rate and higher social unrest (measured by the number of strikes). These are all indicators that tend to put pressure on public spending and to be associated with public debt accumulation.



Source: Crivelli, Gupta and Mulas-Granados (2016). Data DPI (2015)

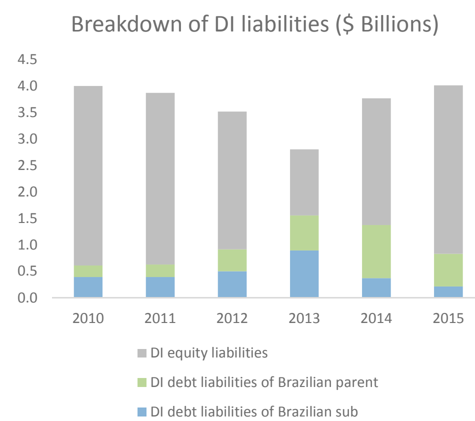


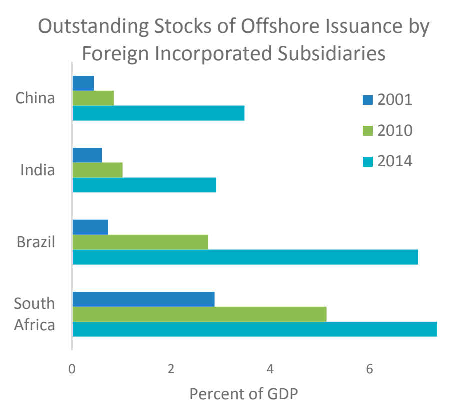
Source: Crivelli, Gupta and Mulas-Granados (2016). Data DPI (2015)

19. **Institutional frameworks that reinforce the medium-term perspective and centralize budget commitments help eliminate the effects of political fragmentation on public accounts.** Strong budget rules and budget institutions help shield the budget from electoral pressures and reduce the effect of political fragmentation on deficits and debt. In the presence of divided cabinets, a strong coordinating role for the Ministry of Finance, is associated with less fiscal profligacy and declining public debt (Hallerberg and Von Hagen, 1997; Von Hagen, Hallett and Strauch, 2001).

D. Composition of Direct Investment Liabilities

20. **Direct investment (DI) has contributed to Brazil's external resilience in recent years.** Net DI (flows) amounted to some 3 percent on average since 2010 while DI liabilities reached about 4 percent of GDP. This compares to a current account deficit of some 3.3 percent over the same period. Given their favorable risk profile, sustained large FDI flows into Brazil represent a factor of strength.

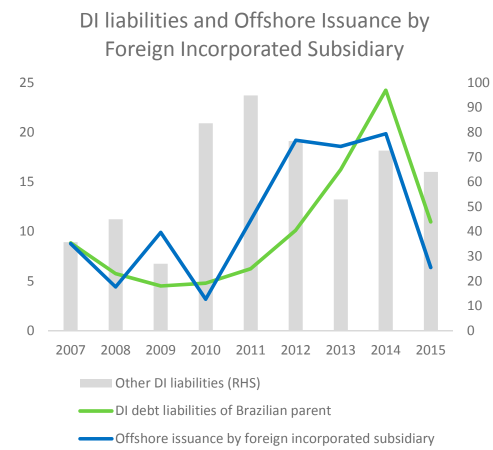




21. **The breakdown of DI liabilities reveals an important development.** The share of intercompany loans in the total increased significantly during the post-2008 period, amounting to around half of DI liabilities in 2013/14. Loans by foreign incorporated subsidiaries to Brazilian parent companies, such as Petrobras, drove the uptick. The more traditional type of loans from a foreign parent to a domestic subsidiary has often been judged to have a similar risk profile to DI equity investments. In contrast, intercompany loans from the subsidiary to the parent may have a risk profile more similar to portfolio debt

flows because they reflect the proceeds from offshore bond issuances by the foreign incorporated subsidiaries.

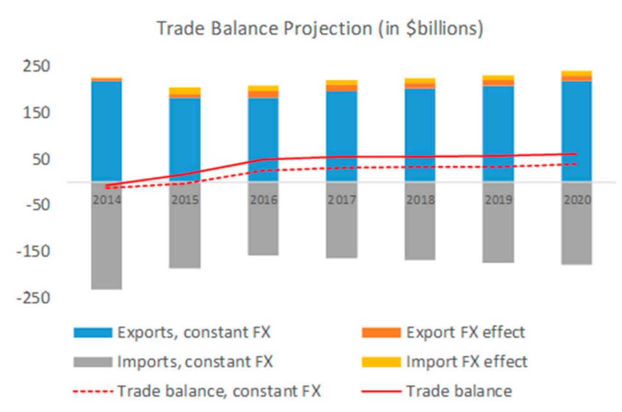
22. **Offshore issuances by foreign incorporated subsidiaries of domestic corporates have gained prominence during the post-crisis period**. Brazil is among a number of EMs in which the outstanding stock of such issuances increased dramatically in recent years (to some 7 percent of GDP in 2014). To the extent that the parent is a non-financial corporate, the repatriation of proceeds from such issuances would show up in DI debt liabilities of domestic parent companies in the balance of payments. In the case of Brazil, parent companies indeed appear to have been repatriating the bulk of the proceeds, as indicated by the close correlation between issuances and the relevant DI component. Importantly, the dramatic decline of both series in 2015, reflecting largely Petrobras' temporary loss of market access, illustrates the risk profile of such flows, distinguishing them from other, less risky types of DI liabilities.



E. Trade Response to the Real Effective Exchange Rate Change

23. **The link between the exchange rate and export volumes has weakened over time with the declining share of manufactured goods in the export basket.** A structural VAR analysis based on a model including the REER, trade volumes and the terms of trade (using first differenced quarterly data since 1990) suggests that imports respond strongly to real depreciations within the same year of the relative price change, while exports respond with a delay of one to two years. The response of imports to REER changes appears to be rather immediate and sizable at about 0.45. There is no evidence that a change in the REER affects import volumes later than 4 quarters out. The elasticity of manufacturing exports to a REER change is -0.45, with the bulk of the response materializing one year after the price change. Semi-manufactured and basic products show smaller elasticities, which operate with longer lags. This is intuitive given that commodities' supply tends to be inelastic. Importantly, this also implies that the aggregate export elasticity has fallen over time as the share of manufacturing in total exports declined from 59 percent in 2000 to 38 percent in 2015. The current aggregate elasticity of about 0.4 would have been closer to 0.5 in 2000.

24. **Estimated trade elasticities are used to assess staff's trade projections.** We compare our projections to those that would have been obtained had the REER remained constant at its end-2013 with the value of other variables, including the terms of trade, evolving as in the baseline. Import decline in 2015 following the dramatic REER depreciation in the same year is sizeable. Exports, in turn, show a delayed response that only fully materializes by 2017. The total effect of movements in the REER between 2013 and 2020 is projected to amount to 35 billion US dollars, about evenly split between exports and imports. Using the estimated trade elasticities, the analysis indicates that staff's trade balance forecast would have remained closer to zero throughout the medium term in the absence of the currency depreciation, all else constant.



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INTERNATIONAL MONETARY FUND

BRAZIL

STAFF REPORT FOR THE 2016 ARTICLE IV CONSULTATION—INFORMATIONAL ANNEX

October 14, 2016

Prepared By

The Western Hemisphere Department
(In consultation with other departments)

CONTENTS

FUND RELATIONS

(As of September 16, 2016)

Membership Status: Joined January 14, 1946; Article VIII

General Resources Account:

	SDR Million	Percent Quota
Quota	10,042.00	100.00
Fund holdings of currency (Exchange Rate)	10,116.84	92.07
Reserve Tranche Position	875.17	8.71
Lending to the Fund		
New Arrangement to Borrow	783.12	

SDR Department:

	SDR Million	Percent of Allocation
Net cumulative allocation	2,887.08	100.00
Holdings	2,596.22	89.93

Outstanding Purchases and Loans: None

Financial Arrangements:

Type	Date of Arrangement	Expiration Date	Amount Approved (SDR Million)	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				
	2016	**2017**	**2018**	**2019**	**2020**
Principal	0.00	0.00	0.00	0.00	0.00
Charges/interest	0.07	0.25	0.25	0.25	0.25
Total	**0.07**	**0.25**	**0.25**	**0.25**	**0.25**

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 multiple currency practices (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 March 16, 2015. Brazil is on the 12-month cycle. Joint Fund/World Bank missions visited Brazil in 2002 for the Financial Sector Assessment Program (FSAP), which was discussed by the Board in December 2002. A FSAP Update mission took place in March 2012.

Technical Assistance

Fiscal Affairs Department (FAD). FAD support to a Fiscal Transparency Evaluation organized by the Inter-American Development Bank. There were two visits: one to explain the methodology and the second when we delivered the assessment itself. FAD has also provided TA to São Paulo on the implementation of a public service cost system. During the last year FAD helped preparing a cost manual, defining the reforms in the IFMIS system to calculate costs automatically, and defining procedures to calculate costs of the secretaries of penitentiary administration, health, and education.

Resident Representative

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

RELATIONS WITH THE WORLD BANK[1]

The World Bank Group has been a valued partner for Brazil, providing integrated and often multi-sector development solutions tailored to its needs. The Bank has also benefited greatly from Brazil's unique demands, which required the WBG to adapt and learn and provided a broad range of lessons on development for the Global Community in areas ranging from poverty reduction to social inclusion and environmental management.

The World Bank has initiated the preparation of its new Country partnership Framework. The new CPF is being built on, and deepened, the last FY 2012–15 Country Strategy, which had as a main objective to make a catalytic contribution to Brazil's efforts to eradicate poverty and to become a more prosperous and inclusive country by focusing on four strategic objectives: (i) increasing the efficiency of public and private investment; (ii) enhancing service provision to poorer segments of the population; (iii) reducing regional economic disparities; and (iv) improving sustainable natural resource management and climate resilience.

As part of the preparation of the new country strategy the World Bank recently completed a Systematic Country Diagnostics. The SCD identifies five main challenges facing Brazil: (i) lack of fiscal space and a large transfer of resources to the non-poor (particularly pensions); (ii) weaknesses of public sector governance and institutional fragmentation which hamper effective long-term policy design, planning and implementation; (iii) segmentation of financial markets, lack of long term credit and high interest rates; (iv) insufficient competition and poor business environment; and (v) weaknesses in the management of Brazil's natural resources and insufficient resilience against climate risks.

IBRD lending program was US$550 million for FY 15, and US$758 million for FY 16. The strategy for the FY 17 is to start rebuilding the lending pipeline for FY 18, while FY 17 new lending deliveries should be close to US$300 million. The Brazil program continues to maintain a complex portfolio bringing together financial, knowledge, and convening services and sharing our work globally. The WBG impact in Brazil cannot be derived exclusively from the size of its financial contributions, which are bound to be small with respect to the country's own resources. The Bank Group deploys its resources according to the following principles. Flexibility: Adjusting areas of engagement and instruments to better respond to the country's evolving needs. Selectivity: Focusing on areas where Brazil faces second-generation development challenges and can benefit most from the Group's knowledge and experience. Innovation: Supporting innovative investments and policy reforms that can be replicated locally and internationally, and offering innovative services and instruments (e.g. result-based and multi-sector loans, partial credit risk and other guarantees). Leveraging: Increasing the use of leveraged resources from government, the private sector and other development partners, to maximize development impacts.

[1] Prepared by the World Bank.

IFC's investment portfolio in Brazil now stands at US$4.05 billion, including US$1.3 billion from syndications. IFC new commitments reached US$1.3 billion by the end of FY 16, making it the Corporation's largest country program for FY 16. Out of the US$1.3 billion in new commitments, US$1.018 million are from IFC's own account and US$309.38 million from mobilization. Key sectors include Financial Markets, Health, Education, Agribusiness and Infrastructure. Looking forward, IFC has taken a disciplined, selective approach to adapt to the current environment, focusing on protecting portfolio companies, supporting the relief of distressed assets and keeping markets open for expansion and investment. The long-term strategy aims to continue supporting the country to address the challenges of financial inclusion, urbanization, competitiveness and sustainable management of natural resources through investments focused on the infrastructure, telecom, health, education, agribusiness and financial institutions sectors. In addition to its investment projects, IFC has provided Brazil's fast-growing private sector with various advisory services, including for PPP projects (roads, health, education), through a partnership with BNDES, the Brazilian development bank.

MIGA processed in FY 15 its first exposure transaction in Brazil since FY 09. While MIGA has had no exposure in Brazil in recent years, it views Brazil as a target market, where it can support the government's agenda of meeting the country's massive infrastructure requirements, through the provision of guarantees of Non-Honoring Financial Obligations (NHSFO) in respect of financial payment obligations of the sovereign, sub-sovereign and state-owned enterprises. These products provide credit enhancement to borrowers to enable them to (i) reduce their funding costs (ii) increase their access to long-term financing and (iii) diversify their financing sources. A case in point is the São Paulo Sustainable Transport Project. MIGA's NHSFO guarantee, which was approved by the Executive Directors in April 2014 and by the Brazilian Senate on September 2, 2014, mobilized long-term commercial bank financing on competitive terms, by guaranteeing the State of São Paulo's financial obligations under such bank financing. Brazil will also be the first IBRD beneficiary of the Bank Group's effort to take advantage of synergies across the balance sheets of World Bank Group entities. Brazil will gain about US$100 million in additional IBRD lending headroom through an exchange of existing IBRD exposure to Brazil, where MIGA has the capacity to assume higher exposure, for MIGA exposure to Panama, a country where IBRD has available capacity.

Brazil: World Bank-IMF Country Level Work Program under JMAP	Provisional Timing of Missions	Expected Approval/Delivery Date
A. Investment Project Financing		
1. Recife Municipal PforR		06/30/2017
2. Salvador PForR		TBD
B. Program for Results		
1. Fortaleza Municipal IPF		02/15/2017
C. Advisory Services and Analytics		
Technical Assitance (TA)		
1. Energy effic. recommendations for CESAN		08/22/16
2. Infrastructure Regulatory Frameworks		09/30/16
3. BR Online retail and urban logistics		09/30/16
4. Rio de Janeiro Education Studies		10/28/16
5. BR Transport and Gender Mainstreaming		10/31/16
6. Innovation in DRM Decision Making in BR		11/28/16
7. Agriculture Drought Preparedness ENSO		12/12/16
8. Post-COP21 Environmental Research Agenda		12/30/16
9. Conferences, workshops and other events		05/10/17
10. On Efficiency of Pub.Inv. for Productiv.		05/31/17
11. Studies on Innovation Impacts and Policies		05/31/17
12. Studies on Invest. and Trade Facilitation		05/31/17
13. Logistics Support to SEP/PR, SECEX, SEAE		05/31/17
14. Comp Advoc Support SEAE, SMPE, MPOG, MOC		05/31/17
15. Cross Policy Synergies		05/31/17
16. BR NLTA DEFRA CERRADO Climate Change		06/08/17
17. Participat. Governance Citizen Security		06/30/17
18. Review of Costs of Violence		06/30/17
19. Municipal Diagnostics of C&V		06/30/17
20. Briefs to Inform City Strategies		06/30/17
21. Assessment of the Bank's engagement		06/30/17
22. Capacity building based on interventions		06/30/17
Economic Sector Work (ESW)		
1. BR financial sector credit allocation		08/25/16
2. Infrastructure Efficiency for Growth		09/30/16
3. Brazil Governance in Infrastructure		09/30/16
4. Mobility in Cities Study		09/30/16
5. BR Subnational Governance Monitoring		10/31/16
6. Expenditure Review of Education		12/16/16
7. Analysis of INDC Land Use Targets		01/31/17
8. Knowledge Products on Social Assistance		05/08/17
9. Exploring Forest Bonds		05/31/17
10. Typology of Cities		05/31/17
11. Brazil expenditure review		06/30/17
Programmatic Approach (PA)		
1. BR WWP Learning Initiative (SoD Hub)		05/25/17
2. Productivity for Shared Prosperity		05/31/17
3. Violence Prevention in Brazil		06/30/17

RELATIONS WITH THE INTER-AMERICAN DEVELOPMENT BANK[1]

The IDB's Country Strategy with Brazil was recently approved on March 30, 2016. This was established for the period 2016−18 and is comprised of three strategic areas: (1) increase productivity and competitiveness; (2) reduce inequity and improve public services; (3) strengthen institutions at the three levels of government; as well as the crosscutting issues of gender, diversity, integration, and climate change.

The portfolio of loans approved during the strategy 2012–14 period totaled 84 operations for US$8.35 billion, 68 of which were sovereign guarantee (SG) for US$7.4 billion, and 16 of which were non-sovereign guarantee (NSG) for US$950.7 million. Of the SG operations, 62 were with Brazilian states, state-owned enterprises, or municipals, thereby maintaining a subnational emphasis (91 percent of approved operations). In terms of the regional focus, 45 percent of SG operations (by number) are in the North (19 percent) and Northeast (26 percent). With regard to technical support, the IDB is the largest provider of technical assistance and knowledge transfer to public institutions. During the strategy period, 45 technical-cooperation operations were approved for a total of US$40.9 million, focusing on social and productive inclusion, and environmental and rural management and climate change.

In 2015, the IDB approved seven loans amounting to US$382.5 million, including one sovereign guarantee operation for US$56 million and six non-sovereign guarantee operations for US$326.5 million. The majority of the lending went to promote development through the private sector (85 percent), and promote the development of sustainable cities (15 percent). The lending to subnational governments corresponded to 15 percent of total lending to Brazil. Among the major operations approved, some highlights are: (a) Program for Integrated Urban Development of the Municipality of Campo Grande (US$56 million); (b) Banco Coorporativo Sicredi Financing for Rural Credit and Low Carbon Agriculture (US$50 million); (c) Mind Lab Increasing Access to Innovative Education Methodologies in Brazil (US$4.6 million); and (d) Itau Unibanco Women-Owned MSME Partnership (US$100 million).

Brazil: Loans Approved by the Interamerican Development Bank in 2015

(In millions of US$) 1/

	Subnational Gov.	Central Gov.	Private Sector	**Total**
Stimulate social and productive inclusion	-	-	-	**-**
Improve the condition of the country's infrasctructure	-	-	-	**-**
Promote the development of sustainable cities	56	-	-	**56**
Improve the institutional capacity of public entities	-	-	-	**-**
Increase the sustainable management of natural resources	-	-	-	**-**
Promote development through the private sector	-	-	326.5	**326.5**
Total value of loans	**56**	**-**	**326.5**	**382.5**
Total number of loans	**1**	**-**	**6.0**	**7**

1/ Based in the IDB's Strategy Areas for the period 2012–14.

[1] Prepared by the Inter-American Development Bank.

For 2016, the total loan approvals are projected to reach US$1,457.4 million. Loans with sovereign guarantee make the bulk of the operations, amounting to US$1,250.0 million, while operations with the private sector are expected to total US$207.4 million.[2] In addition, the IDB program in the period estimates approvals of US$43.9 million in grants for Technical Cooperation.

Brazil is the largest IDB borrower. The current active portfolio consists of 118 loans to the public sector (US$11,315.8 million) and 50 loans to the private sector (US$974.2 million)[3]. Brazil's outstanding debt with the IDB amounts to US$14,588 million (as of end of February 2016) and from the current portfolio US$7,253.2 million have not been disbursed yet (as of march 22, 2016).

[2] Twenty-seven operations correspond to the Inter-American Investment Corporation (IIC) (US$945 million) and 23 operations to the Multilateral Investment Fund (MIF) (US$28.95 million), both members of the IDB Group.

[3] Private sector values do include loans by the Inter-American Investment Corporation (IIC) and with the Multilateral Investment Fund (MIF) operations, both members of the IDB Group.

STATISTICAL ISSUES

(As of September 23, 2016)

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 follow the guidelines of the *2008 System of National Accounts*. The availability of annual and quarterly supply and use tables also contribute to the development of consistent national accounts estimates. The series (data and supporting methodological notes) are available on the internet (http://www.ibge.gov.br) and in *International Financial Statistics* (IFS). It is also participating in the G-20 Data Gaps Initiative regarding recommendation 15, which calls for developing a strategy to promote the compilation and dissemination of the balance sheet approach, flow of funds, and sectoral data on a quarterly and annual 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. Both the Getúlio Vargas Foundation (FGV) 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) 2001* presentation. The reported statistics include the statement of government operations and financial balance sheet for the consolidated central government (comprising the National Treasury and Social Security) as well as financing operations and the financial balance sheet for the general government. The reported data are compiled by converting the nationally published data, which still broadly follow the *GFSM 1986* framework. The data reflect the movements of the single treasury account and are on a cash basis except for interest. The gross debt indicator excludes government securities under the central bank's outright ownership, making international comparisons difficult. In 2009, the Brazilian authorities developed a migration plan for the full implementation the *GFSM 2001*. This plan comprises the introduction of a new accounting framework based on the International Public Sector Accounting Standards (IPSAS), which merges the traditional budgetary approach, the accrual based accounting, and some additional internal controls into a single system. This new accounting framework significantly enhances the usefulness of the Brazilian public sector accounting information.

I. Assessment of Data Adequacy for Surveillance (Concluded)	
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.	
External Sector Statistics: Brazil disseminates monthly data on the balance of payments and quarterly data on international investment position. External data are compiled according to the sixth edition of the Balance of Payments Manual. The BCB is supplementing the registry of the foreign exchange system with surveys on transportation, insurance, and other services. Compilation of reinvested earnings and undistributed branch profits item in the current account and reinvested earnings item in the financial account could be improved, as the registry of the foreign exchange system does not capture these transactions. The BCB publishes data on International Reserves and Foreign Currency Liquidity on a daily basis with a lag of one day. Brazil reports quarterly total external debt position data with a three-month lag to the World Bank's Quarterly External Debt Statistics database.	
II. Data Standards and Quality	
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, external position and flow statistics, real estate price indexes, general government statistics, and sectoral accounts.	No data ROSC is publicly available.

Brazil: Table of Common Indicators Required for Surveillance
(As of October 6, 2016)

	Date of Latest Observation	Date Received	Frequency of Data[7]	Frequency of Reporting[7]	Frequency of Publication[7]
Exchange Rates	10/6/16	10/6/16	D	D	D
International Reserve Assets and Reserve Liabilities of the Monetary Authorities[1]	10/5/16	10/6/16	D	D	D
Reserve/Base Money	Aug. 16	9/28/16	M	M	M
Broad Money	Aug. 16	9/28/16	M	M	M
Central Bank Balance Sheet	Aug. 16	9/28/16	M	M	M
Consolidated Balance Sheet of the Banking System	Aug. 16	9/28/16	M	M	M
Interest Rates[2]	10/6/16	10/6/16	D	D	D
Consumer Price Index	Aug. 16	9/9/16	M	M	M
Revenue, Expenditure, Balance and Composition of Financing[3] – General Government[4]	Aug. 16	9/30/16	M	M	M
Revenue, Expenditure, Balance and Composition of Financing[3]– Central Government	Aug. 16	9/30/16	M	M	M
Stocks of Central Government and Central Government-Guaranteed Debt[5]	Aug. 16	9/30/16	M	M	M
External Current Account Balance	Aug. 16	9/26/16	M	M	M
Exports and Imports of Goods and Services	Aug. 16	9/26/16	M	M	M
GDP/GNP	Q2 2016	8/31/16	Q	Q	Q
Gross External Debt	Aug. 16	9/26/16	M	M	M
International Investment Position[6]	Q2 2016	8/23/16	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.

INTERNATIONAL MONETARY FUND

BRAZIL

October 14, 2016

STAFF REPORT FOR THE 2016 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

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[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.

PUBLIC DEBT SUSTAINABILITY ANALYSIS

Reflecting a severe recession, difficulties with implementation of the fiscal policy agenda, and the cost of the FX swap program, gross debt of the nonfinancial public sector (NFPS) increased by 10½ percentage points of GDP in 2015, reaching 73.7 percent of GDP. Net debt of the public sector rose by only 3 percentage points of GDP owing to the countervailing impact of valuation gains on gross international reserves. The debt maturity profile and composition have remained broadly unchanged since the last Debt Sustainability Analysis (DSA), and foreign holdings of government securities has remained broadly constant in percent of GDP. However, net interest on NFPS debt picked up significantly in 2015 due to more elevated borrowing costs and because of the large losses on the FX swaps, which are recorded in the interest bill (Box 1). Primary surpluses above 3 percent of GDP (excluding interest revenue) would be needed to keep gross debt from growing as a ratio to GDP beyond the projection horizon. In the baseline scenario, fiscal consolidation based on the government's proposed reforms on the government expenditure side, if fully implemented, would restore the sustainability of debt, but debt ratios would stabilize after the end of the 5-year projection period, with gross debt reaching 93.5 percent of GDP in 2021. The trajectory of gross debt is highly sensitive to fiscal policy performance, owing to the adverse dynamics determined by modest GDP growth and high borrowing costs. Failure to implement the fiscal reforms proposed by the authorities would jeopardize debt sustainability.

A. Background

Debt coverage. Brazil's gross debt statistics cover the NFPS, defined to exclude Petrobras and Eletrobras, and consolidate the Sovereign Wealth Fund. In line with the *GFSM 2014* manual, the NFPS debt includes all Treasury securities on the Central Bank's balance sheet, including those not used under repurchase agreements. At end-2015, the gross debt amounted to 73.7 percent of GDP.[2] As reported by the government, net debt statistics correspond to the public sector, defined to include the Central Bank. The consolidated public sector has a large stock of assets, amounting to 42 percent of GDP in 2015, which include 24.1 percent of GDP in international reserves. Non-financial public sector assets amounted to 34.3 percent of GDP. Brazil's debt is reported at nominal value.[3]

Debt profile. Federal government (FG) domestic tradable securities accounted for 90 percent of total NFPS gross debt in 2015, of which 2/3 were held by the public.[4] Active debt management in recent years has improved the profile of these instruments, which now display longer maturities, of about 4.6 years on average, up from less than 3 years in 2008. Still, a large share of domestic

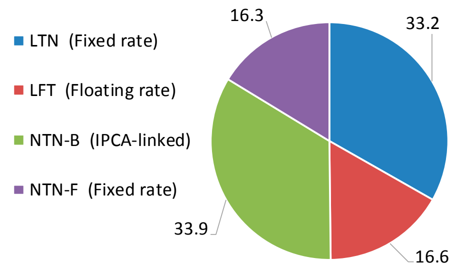
[2] In contrast, the national definition of gross debt includes the stock of Treasury securities used for monetary policy purposes by the Central Bank (those pledged as security in reverse repo operations), but excludes the rest of the government securities held by the Central Bank. Thus, according to the national definition, gross debt of the general government amounted to 66.5 percent of GDP at end-2015. Note also that after completion of the 2015 DSA, published revisions to the historical nominal GDP series have caused the debt ratios up to 2014 to be revised down.

[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 rest is held by the Central Bank on its balance sheet. The Central Bank uses about ¾ of its holdings as security in liquidity-draining operations with the banking system.

tradable securities, nearly 22 percent of total, will mature in 2016.[5] The government has the objectives of raising average maturity to 5.5 years and bringing total short-term debt (on both original and residual maturity basis) down toward 20 percent of all debt over the medium term, which is challenging because of a high term premium. The average maturity of new placements declined somewhat in the course of 2015, but was still well above average residual maturity. Fixed-rate and inflation-linked domestic bonds have gradually replaced foreign-currency linked instruments and floating-rate bonds over the last half a decade. A greater share of newly issued securities was, however, linked to the policy rate (Selic) in 2015. Zero-coupon bonds with original maturities over one year constitute slightly more than half of FG domestic tradable securities held by the public, or 21.7 percent of GDP. Foreign holding of domestic securities was stable at 18 percent of total at end-2015.

Composition of Domestic Tradeable Securities Held by the Public



Source: Tesouro Nacional, and IMF

In addition to tradable securities, other NFPS debt consist of liabilities issued by SOEs and subnational governments, as well as direct bank lending. Foreign currency denominated tradeable securities accounted for only 6.7 percent of the total in 2015, representing slightly below 5 percent of GDP. Gross financing needs have tended to be high, above 15 percent of GDP, and interest charged on new issuances has increased by 250 bps since end-2014. However, this figure overstates rollover risk, as a large fraction of the federal government debt (about 21 percent of GDP, with a maturity profile in line with that of overall debt) is held by the Central Bank, which follows a policy of automatic rollover of its holdings of government securities.

Box 1. Impact of Swaps and Valuation Changes on Interest and Debt in 2015

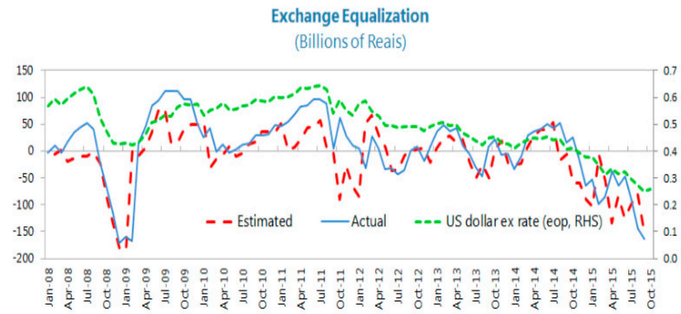
The Central Bank of Brazil (BCB) uses a variety of instruments to intervene in foreign exchange markets but the most frequently used instrument is the Brazilian FX swap (the swap), a non-deliverable future settled in local currency. The swap program has grown over time and, at end-December 2015, the notional value of the outstanding stock of swaps was about US$110 billion, equivalent to 30 percent of gross international reserves or 7.3 percent of GDP. The FX swap is meant to provide hedging to agents with exposures in dollars. If the Brazilian real depreciates too fast, the central bank makes cash losses on the FX swaps; if it depreciates too slowly or appreciates, it makes cash profits. Gains and losses on FX swaps operations are reported by the BCB under the item "Equalização Cambial" (EC) in public debt statistics.

The BCB considers EC in the compilation of the General Government (GG) net debt (a positive result decreases net debt; a negative result increases the net debt), but not in compiling gross debt. EC is calculated daily and, aside from results of the swap operations and derivatives, includes changes in the valuation of reserves (net external debt) and the carry cost of reserves. The treatment of EC applies to

[5] This is broadly a recurring situation. Short-term debt at original maturity is very small, amounting some 2 percent of total NFPS debt.

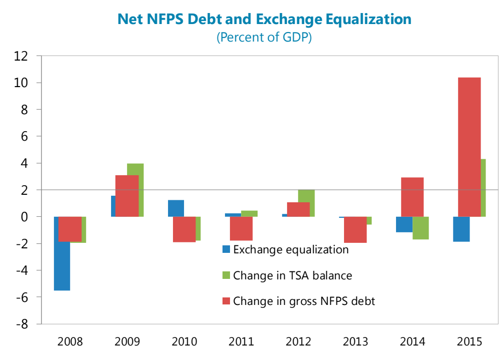
Box 1. Impact of Swaps and Valuation Changes on Interest and Debt in 2015 (Concluded)

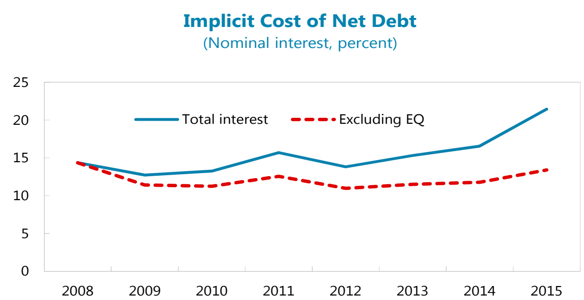
realized, as well as accrued-but-unrealized gains or losses incurred by the BCB. A positive result gives rise to a transfer from the BCB to the Treasury Single Account (TSA) while to cover a negative result the government issues debt to the BCB.

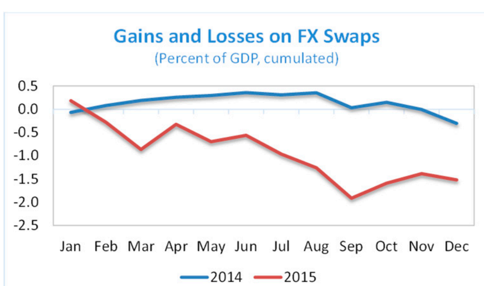


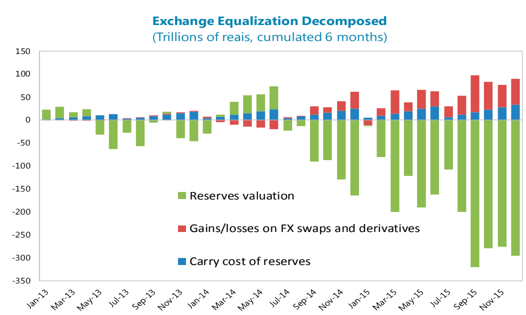
EC closely tracks exchange rate movements and is influenced by the size of reserves. Because of the large size of foreign exchange reserves and the dominance of the U.S. dollar in their composition (over 2/3 of reserves are in U.S. dollars), movements in EC are strongly affected by changes in the real/U.S. dollar exchange rate. For example, when the dollar value of reserves increased from 17.8 percent of GDP in 2014 to 24.1 percent of GDP at end-December 2015, on account of a 49 percent depreciation of the Brazilian real during the year, EC was 1.9 percent of GDP.

Interest on EC, which includes the interest on swaps, is accounted together with interest on public debt. During the period elapsing between the calculation of the balance sheet of the BCB and the effective payment, the values of EC accrue interest at the same rates applied to the FG deposits in the TSA. Gains/losses on the swaps are also included in the net interest bill and thus in the overall government balance. These occur when swap contracts mature, and the BCB pays its counterparts the observed exchange rate change plus the pre-set *coupom cambial* and receives the *ex ante* Selic rate in return (Selected Issues Paper for the 2015 Staff Report and Law No. 11.803, of November 5, 2008.). This part of the interest bill reached 1.5 percent of GDP in 2015, pushing up the implied interest on net debt.









Sources: Central Bank; Ministry of Finance; and IMF staff.

B. Baseline Scenario

Macroeconomic assumptions. The projections assume a real GDP contraction of -3.3 percent in 2016, ½ percent output growth in 2017, and a gradual return to potential growth of 2 percent by 2019. The assumed fiscal adjustment brings the primary balance to 0.8 percent of GDP by 2021, which implies an improvement of about 3 percentage points of GDP during 2017–21, significant but short of what would be needed to stabilize gross debt by 2021. The nominal interest rates on new borrowing are between 12 and 15 percent over 2016–21, bringing the effective interest rate to about 12 percent on average.[6] The baseline scenario assumes limited structural reforms and a modest world output recovery. In this baseline, gross debt remains on an upward path, reaching 93.5 percent of GDP by 2021 and likely to keep growing for some time still. Gross financing needs are projected to remain above the high-risk threshold of 15 percent of GDP on average over the medium term. By the end of the projection horizon, the primary balance required to stabilize debt in the baseline scenario is 3.3 percent of GDP (excluding interest revenue).[7] The baseline assumptions do not include the early repayment of BNDES credit to the government, which is currently under analysis at the TCU (the Federal Court of Accounts, whose concurrence is being sought).[8]

Heat map. The heat map in Figure 1 suggests that the stock of debt and the gross financing needs are high. The premium asked by the market on government borrowing and the reliance on external financing are elevated, pointing to a moderate risk to the debt profile. As noted earlier, however, the gross financing need indicator overstates actual rollover risk as a result of the policy of continuous rollover maintained by the Central Bank, which holds a significant amount of FG bonds. Gross financing needs would amount to about 15 percent of GDP in 2016 excluding rollover of Central Bank held bonds, still at the threshold level for high risk.

Past forecast errors. There is no evidence of a systematic projection bias in the baseline assumptions that would undermine the assessment of sustainability and the projected fiscal adjustment is in line with other countries' experiences. The median forecast error for GDP growth, the primary balance and inflation are below 2 percent and in line with other countries' forecast errors.

Realism of projections. Brazil's projected fiscal adjustment (an improvement of about 2½ percentage points in the cyclically-adjusted primary balance/GDP over the medium term) is in line with other countries' experiences, with a 3-year adjustment in cyclically-adjusted primary balance at the 23 percentile among all surveillance countries.[9]

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[6] Interest rates on new borrowing are projected to behave in line with the forecast for the Selic rate augmented by a spread that varies depending on the maturity of the bond. Note also that effective interest rates show persistence because of the high proportion of zero coupon bonds with multi-year maturities. In particular, zero-coupon bonds issued with very high rates in 2015 will have their cumulated interest falling due in coming years.

[7] 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 (4.6 percent of GDP) corresponds to a concept of the primary balance that includes interest revenue. The definition of the primary balance as a non-interest concept is customary in Brazil and corresponds to 3.3 percent of GDP quoted in the main text.

[8] The proposed schedule is for a repayment on R$100 billion in three installments starting in 2016. The estimated savings on interest from this transaction amount to about R$7 billion per year.

[9] The fiscal multipliers and persistence were estimated in the 2015 Article IV Selected Issues Paper at 0.3-0.5 percent.

C. Shocks and Stress Tests

- *Growth shock.* The impact on the debt-to-GDP ratio of the 1 standard deviation shock (3.4 percent) to real GDP growth is large. Over 2017–18, real GDP growth rates become negative while inflation declines by 200 bps in each year. The primary balance worsens before recovering in 2019; interest rates increase by 55 bps for each percentage point decline in output growth. In this scenario, gross debt increases to 112 percent of GDP by 2021 while gross financing needs reach 39 percent of GDP.

- *Primary balance and real interest rate shocks.* In the primary balance shock, consolidation is delayed by one year. In the interest rate shock, borrowing costs increase by 200 bps in the first projection year and remain the same over the medium term. The impact of these shocks on debt and gross financing needs is modest, pushing up debt-to-GDP by 3 percentage points above the baseline in 2021.

- *Combined macro-fiscal shock and contingent liabilities shocks.* The macro-fiscal shock combines the growth and interest rates shock and a primary balance shock as in the standard examples above, together with the real exchange rate shock consistent with a maximum movement of the real exchange rate over the past 10 years and a pass-through coefficient of 0.25. The contingent liability shock simulates a loss of 10 percent of banking system assets, in line with the experience with past banking crises in other countries, and assumption of contingent liabilities by the public sector. The latter results in a primary deficit of -5.5 percent of GDP in 2017 and a 1 standard deviation shock to GDP growth in 2017 and 2018. The effect of these shocks on debt ratios and gross financing needs is large and reflects in particular the sensitivity of debt to growth shocks, which make the largest contribution to the change in the debt path. Debt-to-GDP reaches about 109−119 percent by 2021 in the two shocks.

- *No reform.* A custom-made scenario assumes that the government fails to implement its proposed reforms on the fiscal front, so that primary deficits are registered throughout the projection period. The currency depreciates by 5 percent in 2016 and by another 20 percent in 2017. Spreads on domestic securities pick up by 500 bps in 2016 and 2017, and remain elevated thereafter. Growth recovery is weaker and the depreciation is steeper. Debt reaches 106 percent of GDP by 2021.

- *Debt Reduction Begins by 2021 ("IMF recommended scenario").* An alternative custom-made scenario projects debt and financing needs under an assumption of more aggressive fiscal consolidation than under the baseline. The scenario is calibrated so that the primary balance reaches the debt-stabilizing level within the 5-year projection period. Faster disinflation and higher confidence supported by fiscal consolidation allows interest rates to drop lower than in the baseline scenario, providing growth support in outer years while fiscal reforms send a positive confidence signal. Gross financing needs are lower and gross debt is put on a declining trajectory by 2021.

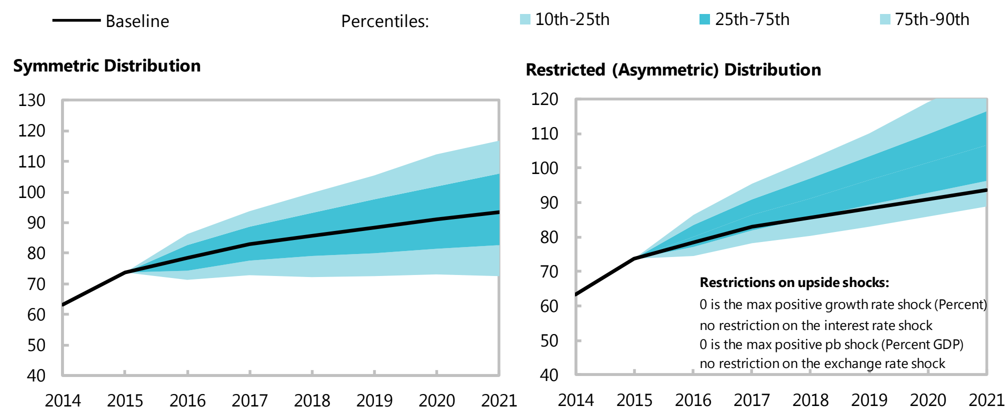
Figure 1. Brazil: Public Sector Debt Sustainability Analysis (DSA)—Risk Assessment

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

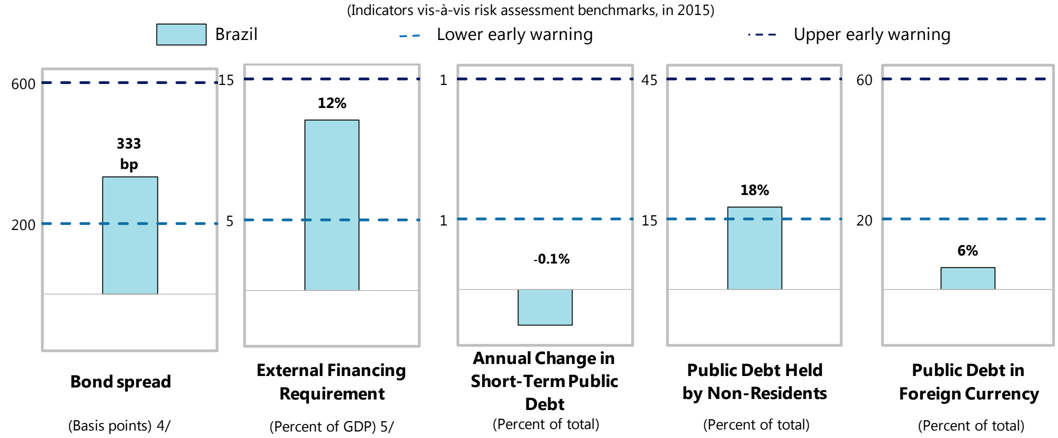
Evolution of Predictive Densities of Gross Nominal Public Debt

(Percent of GDP)



Debt Profile Vulnerabilities

(Indicators vis-à-vis risk assessment benchmarks, in 2015)



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.

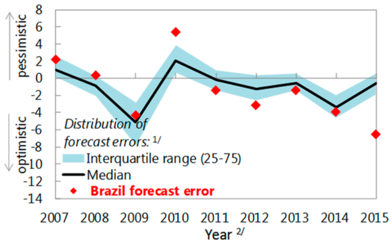
4/ Long-term bond spread over U.S. bonds, an average over the last 3 months, 03-Jun-16 through 01-Sep-16.

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.

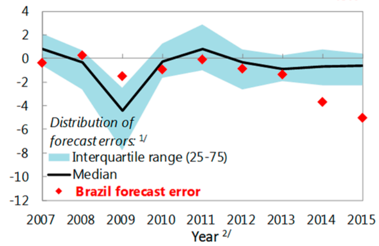
Figure 2. Brazil: Public DSA—Realism of Baseline Assumptions

Forecast Track Record, versus surveillance countries

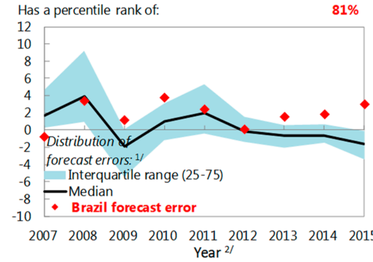
Real GDP Growth
(Percent, actual-projection)
Brazil median forecast error, 2007-2015: **-1.41**
Has a percentile rank of: **16%**



Primary Balance
(Percent of GDP, actual-projection)
Brazil median forecast error, 2007-2015: **-0.92**
Has a percentile rank of: **40%**

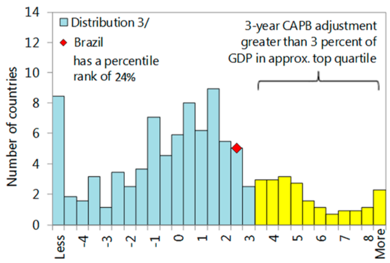


Inflation (Deflator)
(Percent, actual-projection)
Brazil median forecast error, 2007-2015: **1.87**
Has a percentile rank of: **81%**

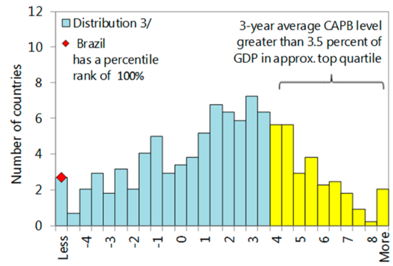


Assessing the Realism of Projected Fiscal Adjustment

3-Year Adjustment in Cyclically-Adjusted Primary Balance (CAPB)
(Percent of GDP)



3-Year Average Level of Cyclically-Adjusted Primary Balance (CAPB)
(Percent of GDP)



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/ 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 DSA—Baseline Scenario

(Percent of GDP unless otherwise indicated)

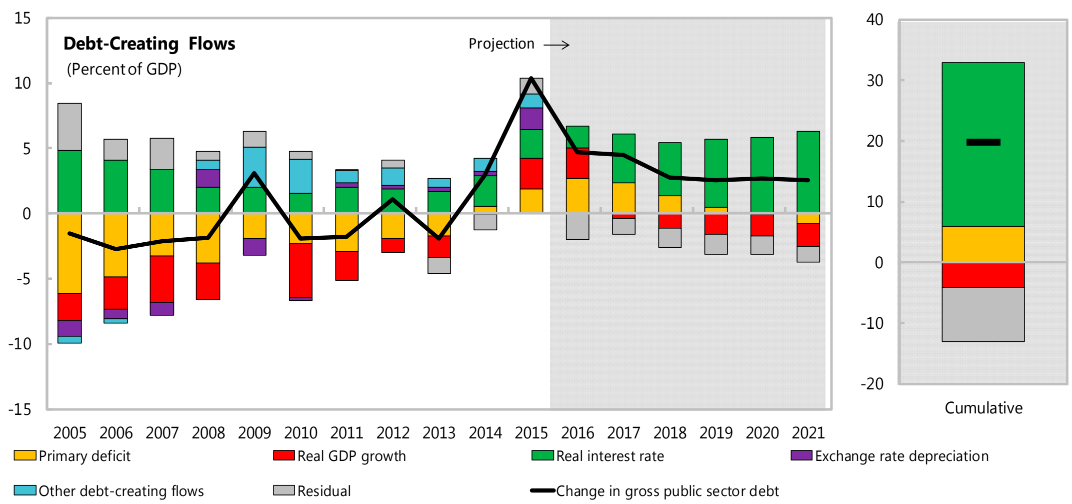
Debt, Economic and Market Indicators 1/

	Actual			Projections					
	2008-13 [2/]	2014	2015	2016	2017	2018	2019	2020	2021
Nominal gross public debt	62.3	63.3	73.7	78.4	82.9	85.7	88.2	90.9	93.5
Public gross financing needs	14.6	16.7	20.5	20.2	21.0	23.5	25.9	29.5	32.3
Real GDP growth (in percent)	3.6	0.1	-3.8	-3.3	0.5	1.5	2.0	2.0	2.0
Inflation (GDP deflator, in percent)	8.0	6.9	10.3	8.0	6.1	5.3	5.1	5.0	5.0
Nominal GDP growth (in percent)	11.9	7.0	3.8	4.4	6.6	6.9	7.2	7.1	7.1
Effective interest rate (in percent) 4/	11.6	11.0	13.7	10.1	11.3	10.6	11.7	12.2	12.5

As of September 01, 2016		
Sovereign Spreads		
EMBIG (bp) 3/		315
5Y CDS (bp)		261
Ratings	Foreign	Local
Moody's	Baa2	Ba2
S&Ps	BBB-	BB
Fitch	BBB	BB

Contribution to Changes in Public Debt

	Actual			Projections							
	2008-13	2014	2015	2016	2017	2018	2019	2020	2021	Cumulative	Debt-Stabilizing Balance 11/
Identified debt-creating flows	-0.9	4.2	9.2	6.7	5.7	4.2	4.1	4.2	3.8	28.8	4.6
Primary deficit	-2.4	0.6	1.9	2.7	2.3	1.3	0.5	-0.1	-0.8	6.0	
Primary (noninterest) revenue and grants	33.5	32.4	31.8	31.1	31.8	32.3	32.5	32.6	32.6	192.8	Without interest
Primary (noninterest) expenditure	31.1	32.9	33.7	33.8	34.2	33.6	33.0	32.5	31.8	198.8	3.3
Automatic debt dynamics 5/	0.0	2.6	6.2	4.0	3.4	2.9	3.6	4.2	4.6	22.8	
Interest rate/growth differential 6/	-0.1	2.2	4.6	4.0	3.4	2.9	3.6	4.2	4.6	22.8	
Of which: real interest rate	1.9	2.3	2.3	1.7	3.8	4.1	5.2	5.9	6.3	26.9	
Of which: real GDP growth	-2.0	-0.1	2.3	2.3	-0.4	-1.2	-1.6	-1.6	-1.7	-4.1	
Exchange rate depreciation 7/	0.2	0.4	1.6	...	...	...	...	...	...	...	
Other identified debt-creating flows	1.5	1.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Privatization	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	
Other flows 8/	1.5	1.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Residual, including asset changes 9/	0.3	-1.2	1.2	-2.0	-1.2	-1.5	-1.6	-1.4	-1.2	-9.0	
o/w "Interest revenue" 10/	-1.4	-0.7	0.1	-1.3	-1.3	-1.5	-1.6	-1.5	-1.3	-8.6	



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 - π(1+g) - g + ae(1+r)]/(1+g+π+gπ)) 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 - π (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/ In 2015 includes the issuance of bonds to the BCB of 1,5 percent of GDP.

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

10/ "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.

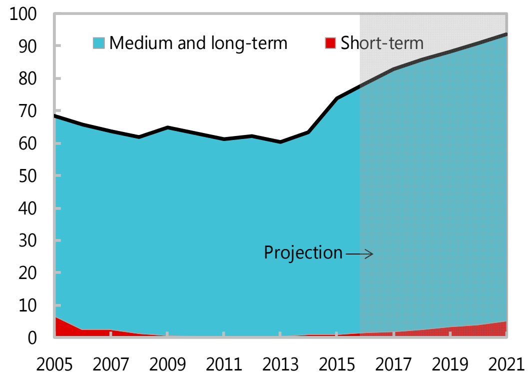
11/ Assumes that key variables (real GDP growth, real interest rate, and other identified debt-creating flows) remain at the level of the last projection year.

Up to 2021, the primary balance shown is a non-interest balance, with interest income showing in the residual, but from 2022 onwards interest income counts toward the required primary balance.

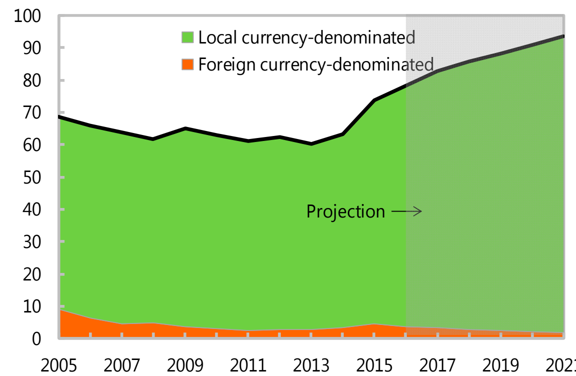
Figure 4. Brazil: Public DSA—Composition of Public Debt and Alternative Scenarios

Composition of Public Debt

By Original Maturity
(Percent of GDP)

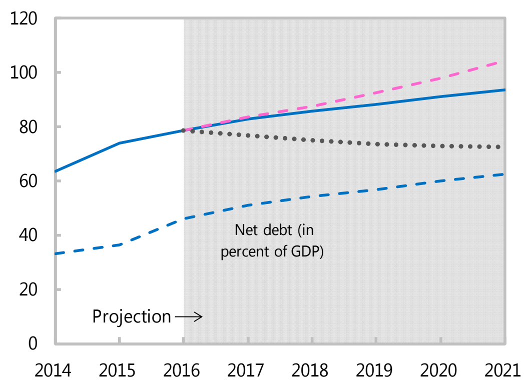


By Currency
(Percent of GDP)

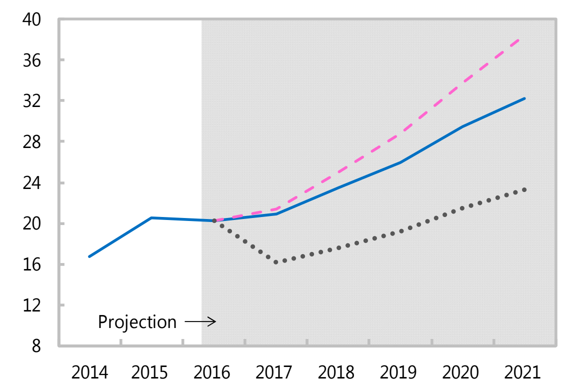


Alternative Scenarios

Gross Nominal Public Debt
(Percent of GDP)



Public Gross Financing Needs
(Percent of GDP)



Underlying Assumptions
(Percent)

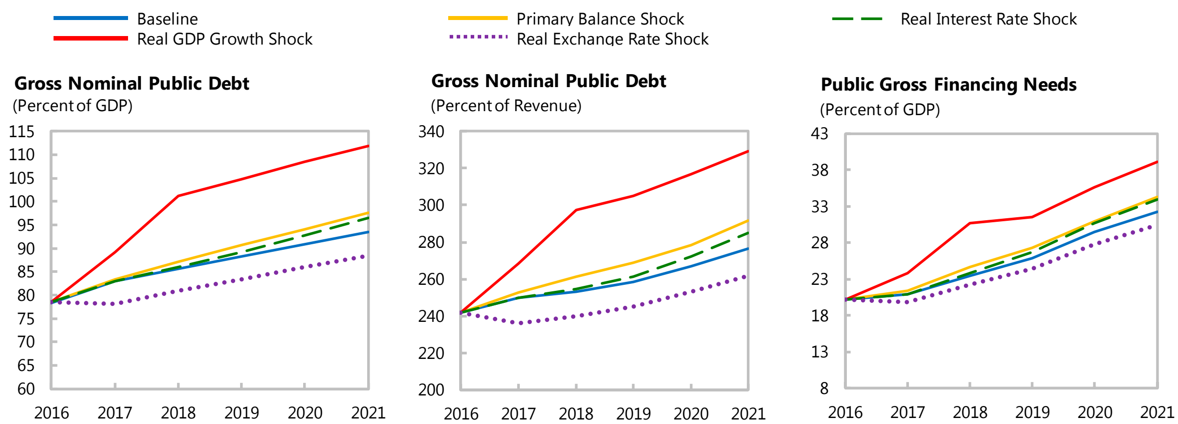
Baseline Scenario	2016	2017	2018	2019	2020	2021
Real GDP growth	-3.3	0.5	1.5	2.0	2.0	2.0
Inflation	8.0	6.1	5.3	5.1	5.0	5.0
Primary Balance	-2.7	-2.3	-1.3	-0.5	0.1	0.8
Effective interest rate	10.1	11.3	10.6	11.7	12.2	12.5
Constant Primary Balance Scenario						
Real GDP growth	-3.3	0.5	1.5	2.0	2.0	2.0
Inflation	8.0	6.1	5.3	5.1	5.0	5.0
Primary Balance	-2.7	-2.7	-2.7	-2.7	-2.7	-2.7
Effective interest rate	10.1	11.3	10.6	11.7	12.1	12.4

Historical Scenario	2016	2017	2018	2019	2020	2021
Real GDP growth	-3.3	2.8	2.8	2.8	2.8	2.8
Inflation	8.0	6.1	5.3	5.1	5.0	5.0
Primary Balance	-2.7	2.0	2.0	2.0	2.0	2.0
Effective interest rate	10.1	11.3	10.2	11.3	11.7	12.1

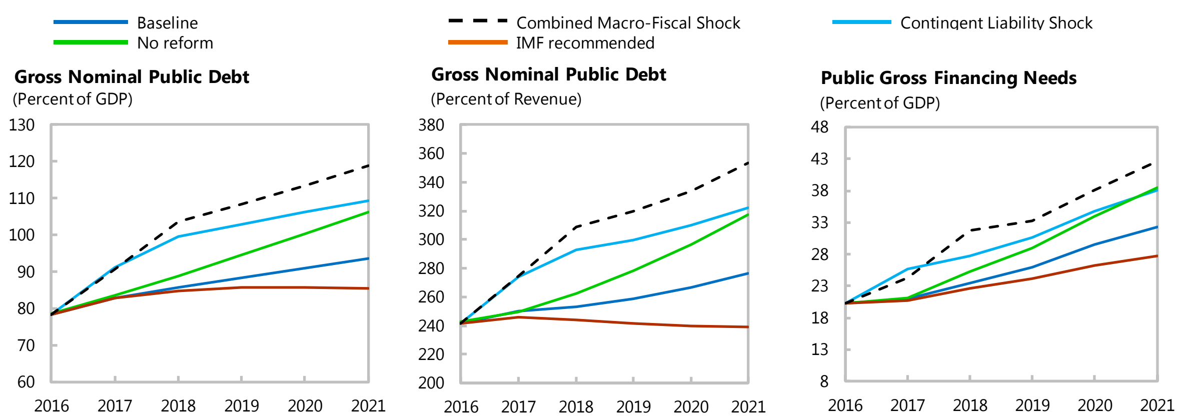
Source: IMF staff.

Figure 5. Brazil: Public DSA—Stress Tests

Macro-Fiscal Stress Tests



Additional Stress Tests



Underlying Assumptions
(in percent)

	2016	2017	2018	2019	2020	2021
Primary Balance Shock						
Real GDP growth	-3.3	0.5	1.5	2.0	2.0	2.0
Inflation	8.0	6.1	5.3	5.1	5.0	5.0
Primary balance	-2.7	-2.7	-2.3	-1.3	-0.5	0.1
Effective interest rate	10.1	11.3	10.7	11.8	12.3	12.6
Real Interest Rate Shock						
Real GDP growth	-3.3	0.5	1.5	2.0	2.0	2.0
Inflation	8.0	6.1	5.3	5.1	5.0	5.0
Primary balance	-2.7	-2.3	-1.3	-0.5	0.1	0.8
Effective interest rate	10.1	11.3	11.1	12.5	13.2	13.7
Combined Shock						
Real GDP growth	-3.3	-2.9	-1.9	2.0	2.0	2.0
Inflation	8.0	4.1	3.3	5.1	5.0	5.0
Primary balance	-2.7	-4.4	-5.6	-1.3	-0.5	0.1
Effective interest rate	10.1	11.4	11.1	12.5	13.2	13.6
No reform						
Real GDP growth	-3.3	0.0	0.5	1.0	1.5	1.5
Inflation	8.0	6.1	5.3	5.1	5.0	5.0
Primary balance	-2.7	-2.3	-1.7	-1.7	-1.6	-1.6
Effective interest rate	10.1	11.3	11.8	12.5	12.6	12.7

	2016	2017	2018	2019	2020	2021
Real GDP Growth Shock						
Real GDP growth	-3.3	-2.9	-1.9	2.0	2.0	2.0
Inflation	8.0	4.1	3.3	5.1	5.0	5.0
Primary balance	-2.7	-4.2	-5.1	-0.5	0.1	0.8
Effective interest rate	10.1	11.3	10.9	12.4	12.6	12.7
Real Exchange Rate Shock						
Real GDP growth	-3.3	0.5	1.5	2.0	2.0	2.0
Inflation	8.0	14.6	5.3	5.1	5.0	5.0
Primary balance	-2.7	-2.3	-1.3	-0.5	0.1	0.8
Effective interest rate	10.1	11.4	10.6	11.7	12.2	12.5
Contingent Liability Shock						
Real GDP growth	-3.3	-2.9	-1.9	2.0	2.0	2.0
Inflation	8.0	4.1	3.3	5.1	5.0	5.0
Primary balance	-2.7	-5.5	-1.3	-0.5	0.1	0.8
Effective interest rate	10.1	12.0	11.1	12.0	12.3	12.5
IMF recommended						
Real GDP growth	-3.3	0.2	1.5	2.2	2.5	2.2
Inflation	8.0	6.1	5.3	5.1	5.0	5.0
Primary balance	-2.7	-1.9	-0.6	0.7	2.0	3.0
Effective interest rate	10.1	11.4	10.5	11.6	12.0	12.2

Source: IMF staff.

Statement by the IMF Staff Representative on Brazil
October 31, 2016

1. **This note reports on information that has become available since the staff report was issued and does not alter the thrust of the staff appraisal.**

- The constitutional amendment that limits the annual growth of federal primary spending to inflation in the previous year has passed by a wide margin the first and second votes in the lower house of Congress. The amendment will now go to the Senate, where it must be voted twice.

- High-frequency data suggest economic activity continued to contract in the third quarter. In particular, the central bank's monthly activity index (a good proxy for GDP) fell sharply in August (0.9 percent m/m), driven by a sharp drop in retail sales, industrial output, and services activity.

- Headline 12-month inflation decelerated to 8.3 percent in mid-October (compared to 8.8 percent in mid-September), with a print of 0.19 percent m/m. The median market forecast for annual inflation in 2017 fell to 5 percent on October 21, and is now 0.5 percentage points above the central bank's target of 4.5 percent.

- The central bank lowered the policy rate by 25 bps to 14 percent in its October Monetary Policy meeting, citing declines since the last policy meeting in inflation, inflation expectations, and the central bank's own inflation forecasts in the constant-policy-rate scenario. The central bank signaled that further easing of monetary conditions would be gradual and moderate.

- Petrobras announced a new pricing policy for gasoline and diesel at the refinery gate, and lowered these prices slightly. According to the new policy, fuel prices will be updated monthly based on changes in international prices, exchange rates, transportation margins, and domestic market conditions, and will not be allowed to fall below import parity.

- Moody's upgraded all ratings, from B3 to B2, of Petrobras and those based on Petrobras' guarantees, including the company's senior unsecured debt and corporate family rating, citing lower liquidity risk and improved prospects for operational performance in the medium term.

Statement by Alexandre Tombini, Executive Director for Brazil
October 31, 2016

1. I thank staff for the set of reports, the high-quality analytical work and the valuable engagement with the Brazilian authorities.

Recent economic developments

2. In mid-2014 Brazil entered its worst recorded recession, accumulating a GDP contraction of 8 percent in the nine quarters through the second quarter of 2016. As is often the case, such a decline in economic activity resulted from a combination of factors. In addition to external factors affecting commodity prices and unleashing important headwinds, policy missteps, in particular on the fiscal front, contributed to eroding confidence in the policy framework. Moreover, political uncertainty coupled with the shrinking of Petrobras further impinged upon investment, which fell dramatically in the last two years. The collapse in aggregate demand led to extensive job losses in the period and a steep rise in unemployment.

3. The new administration, which took office on an interim basis this May and was confirmed only in September, has shown strong commitment to sound macroeconomic policies and has galvanized broad support in Congress to cope with the challenging economic situation.

4. At this point, the Brazilian economy shows signs that activity is stabilizing, albeit still tentatively. Short-term indicators are currently uneven, in line with what is expected in such transitional periods. As political uncertainty dissipates, business and consumer confidence have rebounded. It is expected, however, that labor market softening will continue in the coming quarters, before stabilizing in 2017. Nevertheless, market participants are now more optimistic with regard to GDP growth, as the forecast for 2017 was revised upwards to 1.2 percent, compared to 0.3 percent six months ago.

Economic policy priorities

5. The authorities are fully aware of the severity of the situation and the sheer dimension of the challenges ahead, and concur with staff that growth will more likely resume gradually. They are nevertheless working consistently on different fronts to create the conditions to ensure a stronger and sustainable rebound in growth. In this regard, they have devised and are implementing a combination of actions to restore the credibility of the macroeconomic policy framework, while proceeding with productivity enhancing structural reforms.

6. A paramount goal within this approach is to undertake the needed measures to restore confidence through first stabilizing gross public debt and then subsequently reducing it. Considering that unsustainable long-term expenditure mandates have been a major source of fiscal imbalances, the new administration has set out a fiscal consolidation strategy based on initially curbing the real growth of public spending and then promoting a parametric reform of the pension system. This approach is key towards reestablishing confidence in the fiscal policy framework, helping inflation to converge to the target and creating an opportunity for rebalancing the policy mix. Such a combination of lower inflation and real interest rates as well as reduced uncertainty regarding fiscal sustainability will be crucial to reignite investment in a more vigorous way than currently anticipated.

7. Within this course of action, important progress has already been made in a relatively short period. These include a constitutional amendment that was approved in August to de-earmark a larger share of the budget, which also encompasses subnational entities and facilitates fiscal adjustment; another constitutional amendment freezing federal spending in real terms has been approved by an overwhelming majority in the lower house, before proceeding to the Senate; the Court of Accounts is expected to rule soon in favor of the legality of the early repayment of BNDES – the state-owned development bank – loans from the Treasury, giving the green light for an agreement that may reduce the gross public debt by R$100 billion (about 1.6 percent of GDP) in the next three years; and tax revenues from the new law for the repatriation of undeclared assets are expected to reach R$50 billion (the exact figure will be known in the next few days). Additionally, a constitutional amendment establishing new parameters for the social security system, to promote its sustainability over the long term is set to be sent to Congress by the end of this year.

8. The Brazilian authorities consider that the key fiscal measures, namely, the spending cap and the social security reform, are the game changers to restore debt sustainability and confidence in the economy. So far the strategy is advancing as envisaged and Congress has sent clear signals that it is willing to step up and approve these politically harsh, but necessary measures.

9. With the ongoing progress in the fiscal front, and with inflation expectations for 2017 having come down swiftly in the past six months from 6 to 5 percent and well anchored at the target thereafter, the Monetary Policy Committee (Copom) cut the Selic rate by 25 basis points in its last meeting, on October 19th. Monetary policy remains tight, with high real interest rates. However, as stated by the Central Bank of Brazil (BCB), the gradual and moderate flexibilization of the monetary stance is consistent with the convergence of inflation to the target. Going forward, the magnitude and speed of monetary flexibilization will depend on the level of confidence in the convergence of inflation within the relevant period for monetary policy. Incoming data, in particular, the behavior of those inflation items that are more responsive to monetary policy and economic activity, and the pace of

implementation of reforms will be key for such development. Within the outlined strategy, a stronger fiscal stance and a rebalanced monetary policy will provide a mix consistent with the macroeconomic goals that are more conducive to sustainable growth resumption, based on reduced uncertainty, diminished crowding out, and lower financing costs.

10. Meanwhile, in its pursuit to continuously enhance policy credibility and help the disinflationary process, the BCB undertook measures to sharpen transparency and policy communication. The government is also considering ways to strengthen the *de jure* autonomy of the monetary authority.

Structural reforms

11. Sustainable economic growth is the crucial precondition for overcoming the current challenges of the Brazilian economy. A cyclical rebound may be amplified by the measures mentioned above, but in order to ensure higher potential growth, a robust structural agenda needs to be implemented. With that in mind, the government is pursuing different avenues. One important strand relates to the changes being introduced in the framework for privatization and concessions to make them more appealing. Such an initiative will simultaneously help balance fiscal accounts and boost productivity, by removing bottlenecks and bringing new players to the ground. In addition, Petrobras is currently streamlining its activities, having also been exempted from the requirement to participate in all pre-salt oil exploitation projects. Moreover, in order to facilitate private participation in the provision of public services, a new framework for sanitation companies is being designed, while Infraero – the state-owned airport company – is no longer required to be a mandatory partner in the concession of airports.

12. The authorities are conscious of the fact that microeconomic reforms are also crucial for boosting productivity and long term economic growth, as well as increasing Brazil's competitiveness in a more open economy. In this regard, an agenda to foster a better legal and infra-legal regulatory framework to improve the business climate and stimulate investment is being developed. Some of the main goals are to enhance governance in SOEs, increase the autonomy of regulatory agencies, prioritize evaluation of results over procedures, and update the bankruptcy law. Last but not least, the administration is encouraging BNDES to focus on infrastructure investment. The authorities believe that a better business climate and a clearer design of infrastructure concessions and privatizations will stimulate investments and unleash productive forces in the economy. Moreover, recent corruption probes will lay the groundwork for a new, improved and more transparent relationship between government and the private sector, with potential efficiency gains for the economy.

Financial system soundness and the external sector

13. The Brazilian financial system has recently been through a real life stress test and so far has passed with flying colors. In the last three years, the decline in economic growth, the sharp depreciation of the Brazilian *real* (BRL), the hike in domestic interest rate and the fall in real household income, reached extraordinary levels. Even considering that economic recovery is still needed to ease the pressure and strengthen profitability of the system, deleveraging and absorption of shocks proceeded without any systemic event. Brazilian banks are well provisioned and capitalized, and the regulatory and supervisory framework proved to be robust. Furthermore, BCB's FX swap program (non-deliverable future instruments settled in BRL) provided a valuable additional supply of hedge, which allowed the exchange rate to float widely without causing disruptive financial distress. The overall fiscal impact of the FX swap program has been contained, as the large profits of the program in the first ten months of 2016 made up for more than 80 percent of the losses incurred in 2015.

14. Throughout this period of economic and political turbulence, high levels of international reserves played a major role in providing stability to the Brazilian economy. A large current account deficit and spikes in risk aversion leading to intense volatility of capital flows did not trigger any mistrust about the ability of Brazil to meet its foreign exchange commitments[1]. The floating exchange rate regime worked effectively as the first line of defense to absorb external shocks and promote a swift adjustment in the current account. The FX swap program was instrumental for corporate and financial sectors to assimilate sharp exchange rate movements. In addition, during this period there were no episodes of capital flight and foreign direct investment remained a reliable source of external finance. Looking forward, the authorities foresee a healthier performance of the current account as the economy recovers, while exchange rate flexibility and a sound financial system will continue to be vital for sustainable growth in Brazil.

The fiscal situation of States and Municipalities

15. The economic downturn also affected the public finance of subnational governments, especially those whose revenues are more dependent on commodity prices. Consequently, all levels of government, including states and municipalities, reduced spending to partially accommodate for falling fiscal revenues. However, budget rigidities have constrained the extent of that adjustment, and achieving sustainability is still challenging for states. In this regard, while attention is required for necessary structural reforms, the temporary relief granted by the federal government provided needed space for the adjustment to follow its

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[1] The Selected Issues Paper on *Effectiveness of Interventions in Brazil*, prepared by Christian Saborowski, demonstrates that convertibility risk has been negligible in the Brazilian foreign exchange market.

course. More importantly, the social security reform to be proposed by the federal government should help states tackle increasing pension expenditures.

16. Strengthening controls, closer monitoring by the National Treasury, and full enforcement of the Fiscal Responsibility Law together with improvements in the efficiency in public spending and enhancement of fiscal transparency will help bring subnational governments to a sounder fiscal footing. Yet again, growth will be decisive for restoring fiscal sustainability, particularly for states, whose revenues are more responsive to the economic cycle.