Independent Fiscal Institution

FFR

Fiscal Follow-Up Report

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HIGHLIGHTS

- GDP should grow 4.9% in 2021 and 1.7% in 2022, after contracting 4.1% in 2020.
- In the pessimistic scenario, under the hypothesis of energy rationing, the GDP variation in 2022 would be 0.1%.
- The increase in the projection for revenues collected by the RFB in 2021 was due to higher expectations for nominal GDP.
- The revision in revenues not collected by the RFB occurred mainly due to expectations of higher oil prices.
- Uncertainty regarding primary expenditure and the 2022 spending ceiling is high.
- In IFI projections, court-ordered debts and Auxílio Brasil (of R$46.0 billion a year) could be spent within the ceiling.
- The implicit interest rate of gross debt has already increased by almost one p.p. over 2021.
- Fiscal risks worry, but the challenge of stabilizing the debt-to-GDP ratio is not insuperable.
- Public debt is expected to end in 2021 at 83.3% of GDP in the baseline scenario and resume an upward trajectory.

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Covering Letter

IFI publishes the Fiscal Monitoring Report (RAF) every month to assess the economic performance and analyze the evolution of public accounts. We publish the predictive scenarios in three versions in May and November: baseline, optimistic, and pessimistic. This month an extraordinary revision is presented due to the mapping of new risks and relevant changes in the behavior of some key indicators.

The first section indicates that GDP in the baseline scenario is expected to grow 1.7% in 2022, after 4.9% in 2021. This dynamic will represent a GDP performance below its potential, under the influence of increased fiscal risk. In the pessimistic scenario, the economy may grow only 0.1% next year, incorporating the possibility of energy rationing.

Contrary to projections from a few months ago, the low performance of economic activity combines with a picture of pressured inflation in 2021. The Central Bank's response is to increase the Selic, accompanied by a rise in market interest rates for different maturities. There are two crucial results projected from this: worsening growth prospects and an increase in the cost of public debt.

The second and third sections discuss the central government's primary balance forecast revision. The projection for net revenues increased by R$ 42.6 billion between the June RAF and the current one. The estimated primary deficit for 2021 improved from R$ 197 billion to R$ 158.3 billion (or 1.8% of GDP). The projection for the spending ceiling, on the other hand, indicates a high risk of breaching it in 2026 and no longer in 2027.

In the balance of risks, the discussion about Auxílio Brasil, a substitute for Bolsa Família, and PEC nº 23, which changes the rules for court ruling and court-ordered debts, represents two relevant risks. On the one hand, the uncertainty about the size and financing of the new social expenditure may still be accompanied by further rounds of the current Emergency Aid. In other words, the situation of poverty and unemployment justifies an increase in social transfers while maintaining the commitment to fiscal rules.

On the other hand, the proposal to alter the expedition of court-ordered debts may lead, in practice, to the postponing of expenses. In this case, there would be additional slack in the spending ceiling, increasing expenses without breaking the limit.

Finally, the last section of the report brings the new projections for the gross public debt. The debt should close in 2021 at 83.3% of GDP, growing to 84.8% next year. After benefiting from the rise in inflation and nominal GDP, the debt will return, in our view, to a growth path. The highlight is the significant increase in the average cost in the wake of rising interest rates and worsening perceptions of risk by the market.

The fiscal challenge is not insuperable. Nevertheless, the risk of a pessimistic scenario increases in turbulence within the budgetary framework, especially the spending ceiling. The IFI will continue to monitor fiscal policy decisions and the progress of relevant matters in this area, discussing the scenarios promptly.

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Summary

- The revision of the economic growth projection for 2021 (from 4.2% to 4.9%), compatible with incorporating the second quarter GDP result and the signals of high-frequency indicators, is explained by commodity rising prices and services sector recovery. The downward revision of the growth rate for 2022 (from 2.3% to 1.7%), in turn, stems from the intensification of interest rate hikes needed to contain the advance of inflation and anchor expectations. The baseline scenario assumes that the output gap will narrow by the end of 2024 when real GDP growth equals the estimated potential GDP (2.2%). **(Page 6)**
- In the pessimistic scenario, a scenario of drought-induced rationing could remove 0.6 percentage points (p.p.) from GDP growth in 2022. The intensification of uncertainties present in the baseline scenario (energy crisis and risks associated with fiscal and political-institutional imbalances), requiring a more expressive adjustment in monetary policy, would compromise the product's reaction and the labor market. (**Page 14**)
- The revision in total primary revenue for 2021 was due to the expectation of higher nominal GDP growth in the year and higher tax revenues not collected by the RFB, especially from natural resource exploration, dividends, and other revenues. The nominal GDP increase affects revenues collected by the RFB more between 2021 and 2023. From 2024 on, nominal GDP would grow at an annual rate of 6.2%. In turn, the assumption of higher average oil prices during the projection period and a more depreciated exchange rate influenced the upward revision in revenues not collected by the RFB projections. (**Page 16**)
- Uncertainties for 2022 concern the magnitude of primary spending and the regulatory framework to follow. The pressure comes from expenses with rulings, court-ordered debts, and the Auxílio Brasil program, a substitute for the Bolsa Família. For the time being, the solutions do not include compensatory spending cuts and respect for the rules in force, particularly the spending ceiling. In IFI's projections, it would be possible to accommodate the R$ 89.1 billion foreseen for court rulings and court-ordered debts and R$ 46.0 billion in expenses for Auxílio Brasil within the spending ceiling 2022. (**Page 27**)
- The projections for public debt indicate that the downward trajectory that began in March will not persist. The Selic rate and higher risk pricing have affected the so-called implicit rate on gross debt and interest expenses. To stabilize the debt/GDP, a surplus of around 1% will be necessary for the medium term. The fiscal risks continue to be present, especially in the discussion of court-ordered debts, impacting the spending ceiling, the credibility of fiscal policy, and interest rates. (**Page 42**)

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1. MACROECONOMIC CONTEXT

This edition of the Fiscal Follow-up Report (RAF in the original acronym) presents the update of the IFI's projections for macro-fiscal variables. Incorporation of new data and the reassessment of the assumptions behind each of the scenarios (baseline, optimistic, and pessimistic) allow the forecasts to reflect the current state of the economy. Special Study nº13[2] described the methodology of the macroeconomic parameters projections that underpin the IFI's fiscal scenarios.

After contracting by 4.1% in 2020, IFI's macroeconomic scenario forecasts volume GDP growth accelerating to 4.9% in 2021 and 1.5% in 2022. Next year, the outlook for economic growth is lower than the scenario published in June 2021 and equal to that presented in the preliminary revision published in September 2021[3]. The Central Bank's objective of containing the advance of inflation and anchoring expectations to the target has led the interest rate to contractionary levels, restricting the performance of aggregate demand. In this environment, closing the output gap (a measure of the economy's idleness) should occur gradually until the end of 2024. From then on, real GDP growth will equal the estimate for potential GDP (2.2%).

The projections for real GDP growth in the baseline scenario consider the slowdown of the health crisis, taking into account the progress of the vaccination process and the easing of restrictions to mobility, without contemplating, however, a cut in electricity consumption. The pessimistic scenario quantifies this risk, in which the expected variation for the GDP stands at 0.1%.

1.1 Economic scenario update: 2021-2030

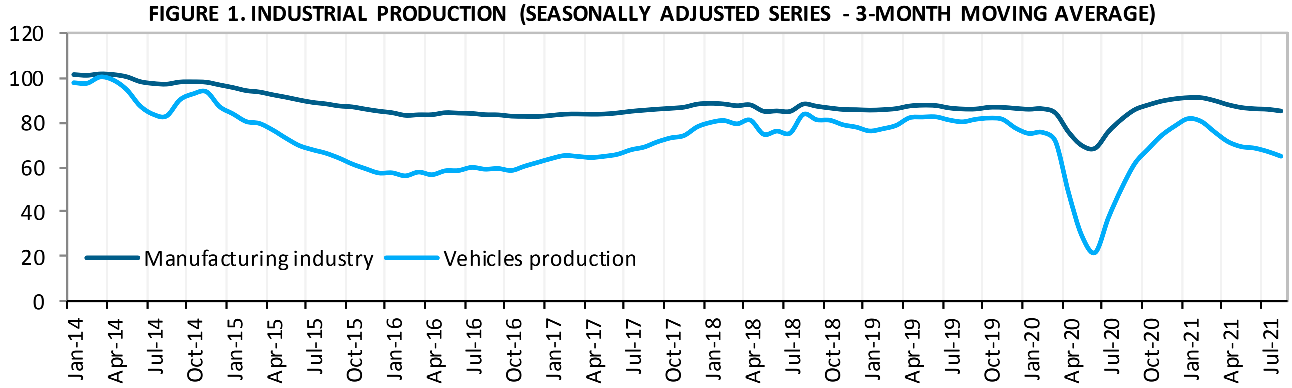
1.1.1 Economic activity

Leading economic indicators present a heterogeneous behavior among the sectors in the third quarter. According to seasonally adjusted data, the industrial production, released by the Brazilian Institute of Geography and Statistics (IBGE in the original acronym), showed a variation of -0.7% between July and August. Manufacturing industries lose dynamism due to disruptions in the supply of inputs caused by pandemic restrictions in some countries and increased costs (the devaluation of the real and the rise in the level of commodity prices and electricity tariffs, for example). The production of vehicles - a segment strongly affected by the shortage of inputs - decreased 3.1% between July and August, intensifying the downward trend observed since the beginning of the year. Figure 1 shows the direction of the indices for manufacturing industries and vehicle production through the three-month moving average.

[2] Available at: https://www2.senado.leg.br/bdsf/bitstream/handle/id/577405/EE13.pdf

[3] The June 2021 RAF de junho de 2021 is available at: https://bit.ly/3BMu1do; the September 2021 RAF is available at: https://bit.ly/3BGS6SR.

FIGURE 1. INDUSTRIAL PRODUCTION (SEASONALLY ADJUSTED SERIES - 3-MONTH MOVING AVERAGE)



Source. IBGE. Prepared by: IFI

Inflation affects trade; service volumes advance for the fifth consecutive month. In the context of high inflation, the reduction in disposable income affects the dynamics of retail sales more clearly. According to the IBGE, in the Monthly Retail Trade Survey (PMC), the retail sales volume of August dropped 2.5% in comparison with July in the seasonally adjusted series. On the other hand, the services sector has been gaining ground with the advance of vaccination and the easing of mobility restrictions. In the Monthly Survey of Services (PMS), the volume of services in August rose 0.5% compared to July, seasonally adjusted, the fifth consecutive positive rate (accumulated gain of 6.5% between April and August).

Aggregate economic activity indicator declines 0.2% in August. The Central Bank's Economic Activity Index (IBC-Br), a variable that aggregates information from the GDP sectors on the supply side, dropped 0.2% from July to August, according to the seasonally adjusted series (Table 1). The August index left a carry-over of 0.1% for the third quarter, thus suggesting stability for the GDP in the period.

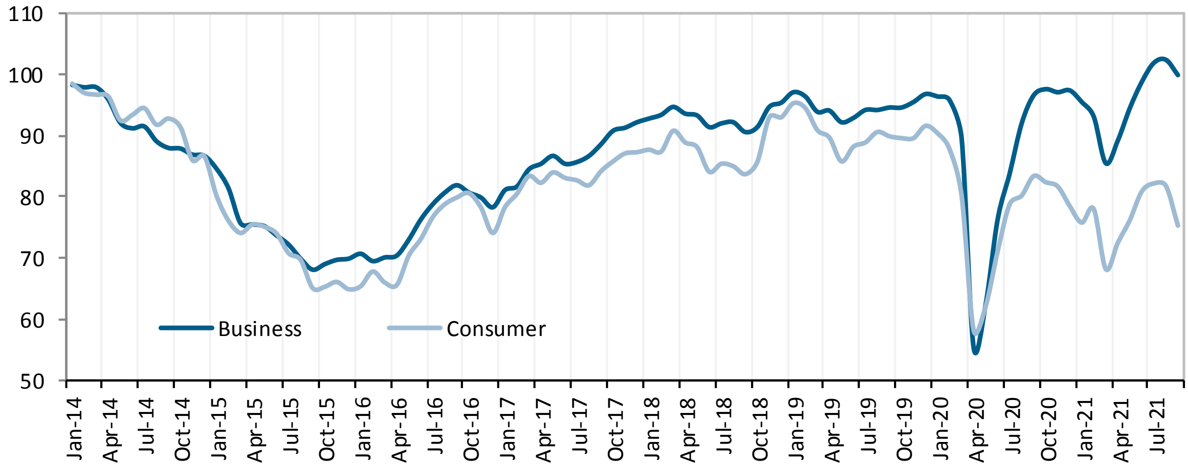
TABLE 1. ECONOMIC ACTIVITY INDICATORS

Indicators	Month x previous month (seasonally adjusted)			Quarter x last quarter (seasonally adjusted)			Carry-over
	Jun/21	Jul/21	Aug/21	Jun/21	Jul/21	Aug/21	3rd quarter
Industrial production	-0.5%	-1.2%	-0.7%	-3.0%	-1.4%	-1.2%	-1.5%
Retail sales	-2.4%	1.1%	-2.5%	2.8%	2.7%	0.8%	-1.1%
Volume of services	1.8%	1.1%	0.5%	2.2%	3.1%	4.3%	3.3%
Central Bank's Economic Activity Index (IBC-Br)	**0.2%**	**0.2%**	**-0.2%**	**-0.4%**	**-0.5%**	**0.2%**	**0.1%**

Source: IBGE and Central Bank. Prepared by: IFI.

Indicators carry mixed signals in September. The business and consumer confidence indexes produced by the Getulio Vargas Foundation (FGV) dropped, in that order, -2.5 and -6.5 percentage points (p.p.) between August and September, interrupting the upward trajectory started in April. The recent worsening may be related to high inflation and interest rates, in addition to the aggravation of the water and energy crisis.

FIGURE 2. CONFIDENCE INDEXES (SEASONALLY ADJUSTED SERIES)



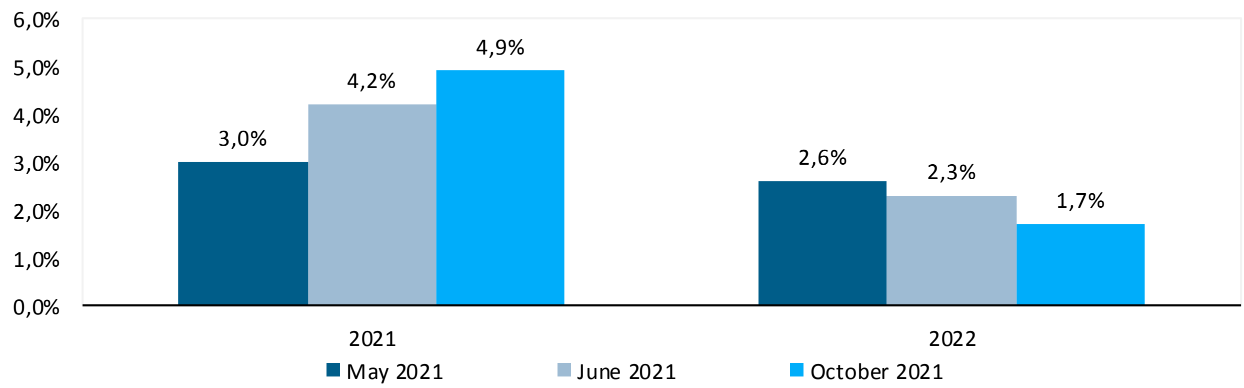
Source. FGV. Prepared by: IFI

Industry indicators, on the other hand, presented a positive performance. The Level of Utilization of Installed Capacity (NUCI), published by FGV, rose 0.5 p.p. between August and September, from 79.7% to 80.2%, while the production of vehicles reported by Anfavea (National Association of Automotive Vehicle Manufacturers) advanced 6.4% in the monthly comparison, only partially offsetting the accumulated loss since the beginning of the year.

After contracting by 4.1% in 2020, real GDP is expected to grow 4.9% in 2021 and 1.7% in 2022. Compared to the projections presented in the June report, the economic growth outlook is more robust this year and weaker in the following year (Figure 3). The improved outlook for 2021 is compatible with incorporating the second quarter GDP result and the signals given by leading indicators. Rising commodity prices and the recovery of the services sector following the increase in mobility sustain a higher rate of expansion than previously forecast.

The downward revision in the growth rate for 2022, in turn, stems from the higher interest rates required to contain the advance of inflation. The projections for real GDP growth in the IFI's baseline scenario consider the slowdown of the pandemic crisis and the progress of the vaccination process. Still, they do not consider restrictions on energy consumption - risk quantified in the pessimistic scenario, in which the expected variation for GDP stands at 0.1%.

FIGURE 3. GDP GROWTH BY RAF EDITION DATE



Source: IBGE and IFI. Prepared by: IFI.

The expected slowdown in growth in 2022 (from 4.9% to 1.7%) stems mainly from the tightening of monetary policy, which translates into less stimulus to aggregate demand. Also, the reduction in the growth rate of economic activity in the main trading partners results in a weaker performance of exports.

Less vigorous global growth. The assumptions related to the international economy come from the International Monetary Fund (IMF) scenario in the World Economic Outlook[4]. In October, the IMF reduced by 0.1 p.p. the expectation for world GDP growth in 2021 (to 5.9%) - after a 3.1% contraction in 2020. For 2022, a slowdown in global economic activity is expected, with an additional expansion of 4.9%. As shown in Table 2, the annual variation rate of China's GDP (leading destination of the volume exported by Brazil) is estimated at 8.0% in 2021, slowing down the following year to 5.6%.

TABLE 2. OUTPUT PROJECTIONS

	2018	2019	2020	2021	2022	2026
World	3.6%	2.8%	-3.1%	**5.9%**	**4.9%**	**3.3%**
Advanced Economies	2.3%	1.7%	-4.5%	**5.2%**	**4.5%**	**1.6%**
Emerging Markets and Developing Economies	4.6%	3.7%	-2.1%	**6.4%**	**5.1%**	**4.4%**
China	6.8%	6.0%	2.3%	**8.0%**	**5.6%**	**4.9%**
United States	2.9%	2.3%	-3.4%	**6.0%**	**5.2%**	**1.7%**
Euro Area	1.9%	1.5%	-6.3%	**5.0%**	**4.3%**	**1.4%**
Argentina	-2.6%	-2.1%	-9.9%	**7.5%**	**2.5%**	**1.8%**

Source: FMI. Prepared by: IFI. In the WEO statistical appendix, the projections are presented for 2021, 2022 and 2026.

The unstable economic and political environment, in addition to doubts about the evolution of the pandemic in global terms, produces a high degree of uncertainty about the GDP projections for 2022. The forecast for the real GDP for next year is between 1.5% (IBRE and IMF) and 2.5% (SPE), as illustrated by the interval of the estimates released by the institutions listed in Table 3. Some banks and consulting firms, in turn, project a GDP advance of less than 1% in 2022[5], a magnitude still below the market average in the Focus Survey.

TABLE 3. COMPARISON WITH OTHER INSTITUTIONS' ESTIMATES (GDP)

	IFI	SPE[6]	FGV IBRE[7]	Ipea[8]	Central Bank[9]	IMF
2021	**4.9%**	5.3%	4.9%	4.8%	4.7%	5.2%
2022	**1.7%**	2.5%	1.5%	1.8%	2.1%	1.5%

Prepared by: IFI.

In the Focus Survey, the projections for GDP in 2021 and 2022 are stable at around 5.0% and 1.5%. Among the agents that registered their forecasts in the Focus Survey, the perspective for the 2021 GDP reached 5.0% on October 15 (range of one standard deviation between 4.8% and 5.3%), after having peaked at 5.2% in July and August. Meanwhile, the average of the market forecasts registered in the Focus Survey for 2022 GDP growth stands at 1.5% (with a standard deviation range between 1.1% and 1.9%).

The medium-term GDP growth projection is 2.2%. The baseline scenario assumes that the output gap narrows by the end of 2024. Then, GDP grows at 2.2% (returning to the relation with potential GDP), slightly lower than the historical average of the last several years (around 2.5%). The labor force grows more slowly than in the past due to the aging of the population. The estimate of potential growth (maximum production growth that the economy can achieve

[4] Available at: https://www.imf.org/en/Publications/WEO/Issues/2021/10/12/world-economic-outlook-october-2021
[5] https://valor.globo.com/brasil/noticia/2021/09/15/previsoes-pioram-e-indicam-avanco-do-pib-inferior-a-1-em-2022.ghtml
[6] https://www.gov.br/economia/pt-br/centrais-de-conteudo/publicacoes/boletins/boletim-macrofiscal/2021/boletimmacrofiscalsetembro2021secretario.pdf/view
[7] https://blogdoibre.fgv.br/posts/desemprego-alto-e-desafio-para-governo-em-2022-e-pode-persistir-ate-2026
[8] https://www.ipea.gov.br/portal/images/stories/PDFs/conjuntura/210930_nota_33_visao_geral.pdf
[9] https://www.bcb.gov.br/publicacoes/ri

without generating inflationary pressures) comes from a production function approach[10], considering the total factor productivity and the perspectives for expanding the capital stock and the labor force.

1.1.2 Labor market

The unemployment rate decreased in comparison with the same period last year. According to statistics obtained in the Continuous National Household Sample Survey (PNAD Contínua) from IBGE, the unemployment rate reached 13.7% of the labor force in the quarter ended in July, down 0.1 p.p. compared to the same period last year (13.8%). The decrease on this basis of comparison had not occurred since March 2020. The result reflected the significant increase in the employed population (8.6%) and the labor force (8.4%).

Progress in the labor force impacts the participation rate. The ratio between the number of people in the labor force and the working-age population (indicator known as the participation rate) reached 58.5% in the quarter ended in July, up 3.8 p.p. against the level registered in the same period a year earlier.

Occupation improvement follows the response in informal employment. The working population totaled 89 million in the quarter ended July, up 8.6% compared to the same period in 2020. Table 4 show that the improvement was driven by the dynamics of informal[11] employment (from 30.7 million in the quarter ended July 2020 to 36.3 million in the quarter ended July 2021, a variation of 18.2%), with emphasis on the increase in the number of people employed without a labor contract in the private sector (19%) and self-employed people (17.6%). The resumption of formal employment began to appear in the survey to a lesser degree, with the number of formalized workers increasing from 51.2 million to 52.7 million (variation of 2.8%).

TABLE 4. WORKING POPULATION

Breakdown	Absolute values (thousand)			Variation compared to the same quarter of the previous year			% to the total working population		
	Jul/20	Jun/21	Jul/21	Jul/20	Jun/21	Jul/21	Jul/20	Jun/21	Jul/21
Working pop.	**82,027**	**87,791**	**89,042**	**-12.3%**	**5.3%**	**8.6%**	**100%**	**100%**	**100%**
Informal	30,694	35,618	36,295	-20.7%	15.8%	18.2%	37.4%	40.6%	40.8%
Formal	51,333	52,173	52,747	-6.5%	-0.8%	2.8%	62.6%	59.4%	59.2%
Private sector	**38,076**	**40,212**	**40,970**	**-15.0%**	**3.7%**	**7.6%**	**46.4%**	**45.8%**	**46.0%**
Formal	29,385	30,189	30,631	-11.3%	0.1%	4.2%	35.8%	34.4%	34.4%
Informal	8,691	10,023	10,339	-25.5%	16.0%	19.0%	10.6%	11.4%	11.6%
Domestic worker	**4,593**	**5,108**	**5,332**	**-26.9%**	**8.4%**	**16.1%**	**5.6%**	**5.8%**	**6.0%**
Public sector	**12,119**	**11,821**	**11,790**	**3.5%**	**-4.4%**	**-2.7%**	**14.8%**	**13.5%**	**13.2%**
Employer	**3,938**	**3,788**	**3,746**	**-9.1%**	**-4.2%**	**-4.9%**	**4.8%**	**4.3%**	**4.2%**
Self-employed	**21,406**	**24,839**	**25,172**	**-11.6%**	**14.7%**	**17.6%**	**26.1%**	**28.3%**	**28.3%**
Auxiliary workers in the family business	**1,895**	**2,023**	**2,032**	**-15.0%**	**8.7%**	**7.2%**	**2.3%**	**2.3%**	**2.3%**

Source: IBGE. Prepared by: IFI.

Underutilization of the labor force is high. In the quarter ended in July, the number of people over 14 years old who were either unemployed (14.1 million) or underemployed due to insufficient hours worked (7.7 million) or discouraged[12] (5.4 million) totaled 27.2 million individuals, an increase of 10.1% in comparison to the same period a year earlier. If these individuals who stopped working were in the labor force, the unemployment rate would be 23.4%, 0.3 p.p. above the rate verified in the same period a year earlier (23.1%).

[10] Special Study nº 4 "Hiato do produto na economia brasileira: estimativas da IFI pela metodologia de função de produção", available at: https://www2.senado.leg.br/bdsf/bitstream/handle/id/536764/EE_04_2018.pdf?sequence=1&isAllowed=y

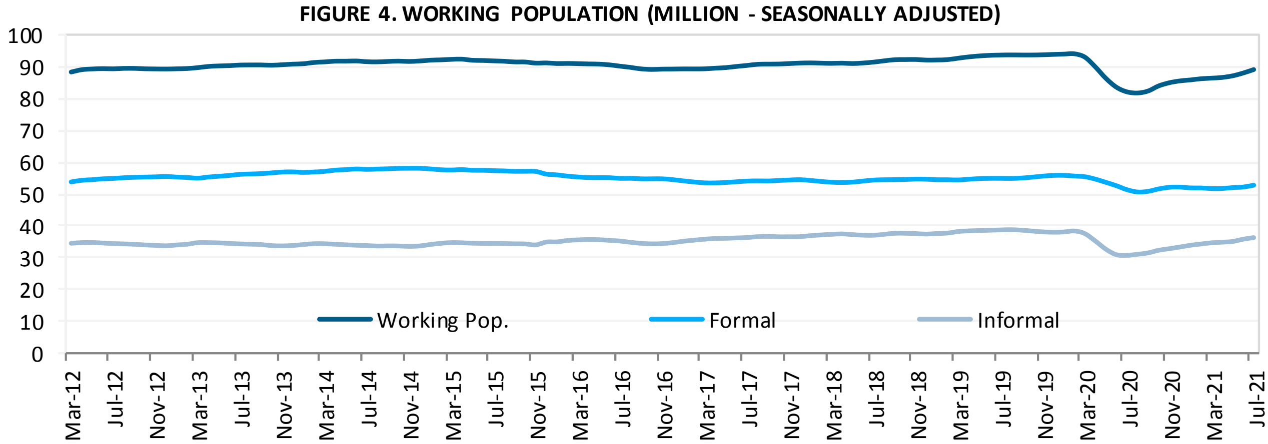
[11] It includes the following positions: private sector and domestic workers without a signed contract, employer and self-employed without CNPJ, and auxiliary workers in a family business.

[12] Discouraged people are those who had not conducted an effective search but would like to have a job and were available for work in the reference week of the survey.

Average real income fell 8.8% compared to the same period in 2020. The worsening inflationary environment and the high unemployment rate in historical terms limit workers' power in negotiations for salary increases. Additionally, the more concentrated increase in hiring in lower-paid activities also explains the drop in income. As a result, a decline of 1.0% in the payroll indicator (average income multiplied by the number of people employed).

The labor market is recovering slowly; employment remains below the pre-pandemic level. The current status of the working population is still 5.3% below that observed in February 2020. The seasonally adjusted series for the working population shows an upward trend since the third quarter of 2020 but is still insufficient to bring employment to the level observed before the pandemic.

FIGURE 4. WORKING POPULATION (MILLION - SEASONALLY ADJUSTED)



Source: IBGE. Prepared by: IFI.

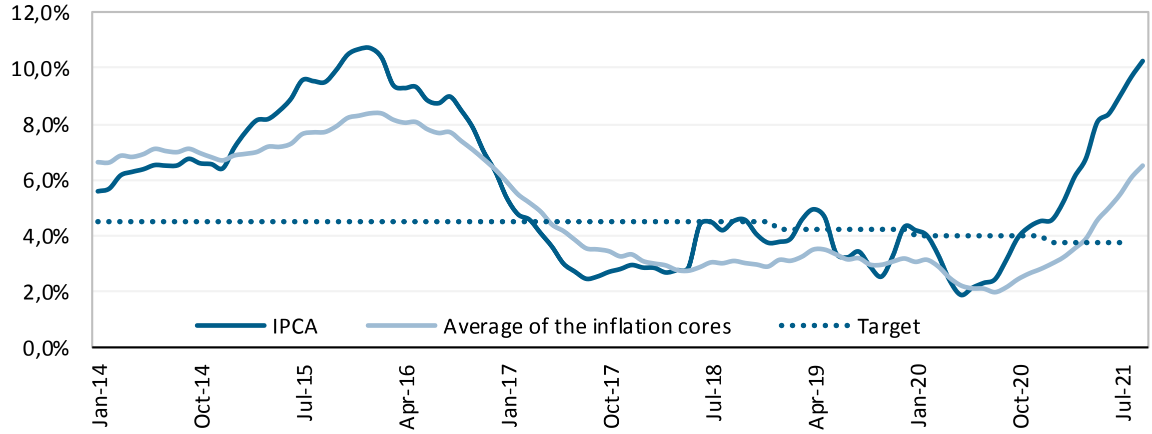
The unemployment rate is projected at 13.9% in the baseline scenario in 2021 and 13.4% in 2022. The working population will increase 3.0% in 2021, above the previous estimate (2.1%). For 2022, we expect an additional growth of 1.5%. The unemployment rate will remain high in 2021 (13.9%) and 2022 (13.4%) and gradually decrease to 12.3% (average from 2023 to 2030). The slow decline is explained by low economic growth, restricting hiring, and returning people from inactivity into the labor force.

1.1.3 Inflation and monetary policy

Consumer inflation in September reached 10.25% over 12 months, well above the inflation target. As measured by the Extended National Consumer Price Index (IPCA), consumer inflation jumped from 0.87% in August (9.68% over 12 months) to 1.16% in September (10.25%). The average of the inflation cores[13] constructed by the Central Bank (several measures that exclude the influence of more volatile items from total inflation) rose from 6.1% to 6.5% between August and September, also remaining above the ceiling of the inflation target.

[13] The set of inflation cores are: Ex-0, Ex-3, MS, DP, and P55, according to the Inflation Report - June 2020: https://www.bcb.gov.br/content/ri/relatorioinflacao/202006/ri202006b10p.pdf

FIGURE 5. IPCA AND CORES (12-MONTH ACCUMULATED % CHANGE)



Source: IBGE and Central Bank. Prepared by: IFI.

Inflation spreads across components of the IPCA. In September, administered (or monitored) prices, which account for approximately 25% of the total IPCA, advanced 1.9% (an accumulated variation of 15.7% over twelve months). Free prices, meanwhile, rose 0.9% (8.4% in the last 12 months). Among free prices (a group of items that are more sensitive to supply and demand conditions), the pressures came from industrial goods (1.0% and 10.6%), food (1.0% and 16.6%), and service prices (0.6% and 4.4%), which react to the normalization of activity in the sector. The inflationary process, initially affected by shocks in the prices of food, fuel, energy, and industrial goods, is widely spread among the components of the IPCA.

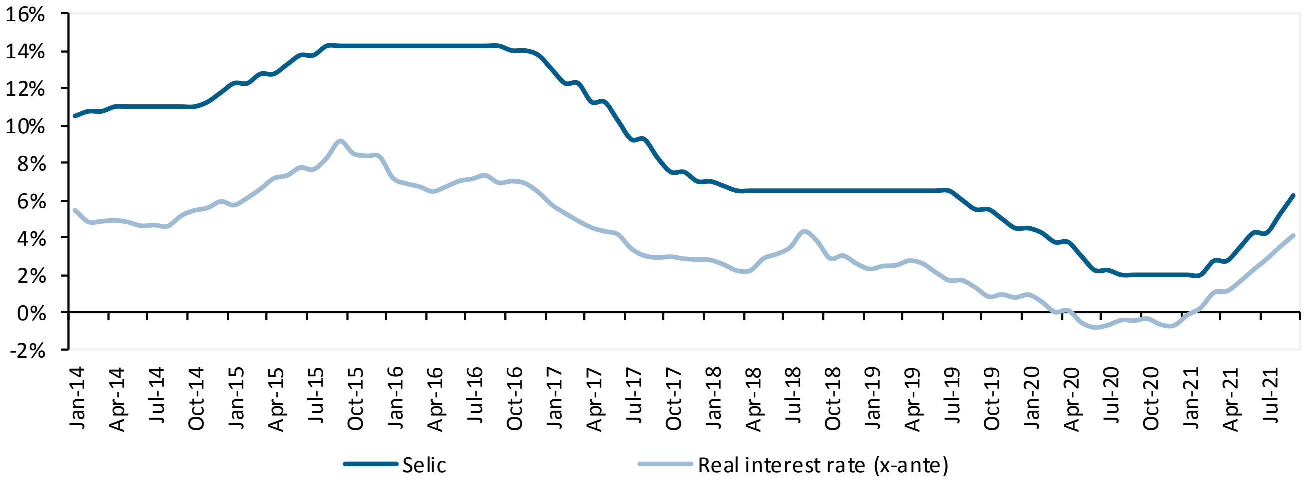
Inflation expectations for 2021 and 2022 are unanchored. In the Focus Survey, the perspective for the IPCA reached 8.7% on October 15 (range of one standard deviation between 8.4% and 8.9%). The 2022 average, in turn, rose to 4.2% with a standard deviation interval between 3.8% and 4.6%, distancing itself from the target of 3.5% established for next year.

Selic rate increases to contain the advance of inflation expectations. In September, the Monetary Policy Committee (Copom) announced a one percentage point increase in the Selic rate, indicating another adjustment of the same magnitude if the inflation and activity scenario does not change. The Selic rate rose from 2.0% to 6.25% (Figure 6) between March and September.

In real terms (ex-ante), the interest rate - obtained based on the rate of pre-DI swap operations[14] for one year (9.0%) discounted from the projected inflation rate[15] (4.7%) - reached 4.1% in September, after remaining in the negative territory between May 2020 and January 2021. The monetary tightening has led the real interest rate to restrictive levels of economic activity when the cyclical recovery of economic activity has not consolidated.

[14] Reference rate of the swap contracts between DI and pre-fixed of 360 days: end of the period, obtained in Ipeadata.
[15] Projection of the IPCA 12 months ahead (smoothed) obtained in the Focus survey.

FIGURE 6. INTEREST RATE



Source: Ipeadata and Central Bank. Prepared by: IFI.

The IFI's projections for inflation and interest rates are higher in 2021 and 2022. The IPCA should end the year at 8.7%, above the ceiling of the inflation target set by the National Monetary Council (CMN), 5.25%, a level higher than the previous projection (5.7%). The more pressured current inflation - reflecting the rise in oil prices, the exchange rate depreciation, the increase of industrial inputs, the water crisis (via food and electricity prices), and the acceleration of service prices - translates into greater inertia for inflation in 2022. In this sense, the current projection for the IPCA next year moved from 3.6% to 4.0%. Base interest rates, in turn, should reach 8.25% by the end of 2021 and 8.5% by the end of 2022 amid the outlined inflation scenario.

The inflation rate moves towards the target (3.0%) in the medium term, while the Selic rate converges to 6.5%. Like potential output and the output gap, the natural (or neutral) real interest rate is an unobserved variable and difficult to estimate. However, the variable is a reference point to monetary policy conduction under the inflation targeting regime. It represents the interest rate consistent with GDP growth equal to potential and the inflation rate on target. The interest rate, being below the natural rate, stimulates economic activity. When the interest rate is above the natural rate, its effect on GDP is contractionary. Over the projection horizon, the real interest rate should move along the parity condition. The domestic interest rate equals the international interest rate plus the country risk premium and expected depreciation of the exchange rate. Between 2023 and 2030, the outlook for the Selic rate is consistent with the natural real interest rate (calculated at around 3.5%) plus the inflation target (3.0%).

1.1.4 The GDP price deflator and nominal GDP

In 2021 and 2022, the GDP price deflator projections (10.1% and 6.3%) follow a weighted average between IPCA and IGP-DI. Between 2023 and 2030, the forecast for the GDP price deflator (3.9%) comes from the assumptions: (i) the difference between the rates of change in the household consumption deflator and the IPCA, observed historically, remains in the coming years, (ii) the government consumption deflator, and the gross fixed capital formation (GFCF) deflator grow in line with the IPCA, and (iii) the export deflator grows in line with the import deflator (which means a neutral scenario for terms of trade).

The combination of volume and price effects on GDP should result in a higher nominal GDP variation in 2021 and 2022. Volume growth of 4.9% and the price deflator of 10.1% should produce nominal GDP growth of 15.5% between 2020 and 2021. This variation would lead the nominal GDP to R$ 8.6 trillion in 2021, higher than the projection of R$ 8.4 trillion presented in the June 2021 RAF. The nominal GDP variation in 2022 is estimated at 8.1% (to R$ 9.3 trillion), decelerating to 6.1%, on average, between 2023 and 2030.

1.1.5 Alternative scenarios

Alternative scenarios become more relevant in the context of increased risk and volatility. The alternative scenarios - optimistic and pessimistic - consider the balance of risks, which is particularly important in this context of high uncertainty. Through its effects on inflation and the exchange rate premium, country risk premium shocks set off more or less benign frames to the baseline scenario.

Deviations from the reference forecast result from changes - based on assumptions and judgments - in the trajectory of exogenous variables (determined outside the model), such as the country risk premium and the evolution of factor productivity. In the international economy context (world economic growth, the Fed Funds rate, and the CPI inflation), the assumptions come from the IMF and the Congressional Budget Office (CBO) most recent publications.

Table 5 summarizes the IFI's macroeconomic projections for the baseline and alternative scenarios. The objective of keeping the three scenarios updated is to highlight the degree of uncertainty of the predictions and their dependence on different conjuncture configurations.

TABLE 5. IFI'S BASELINE, OPTIMISTIC AND PESSIMISTIC SCENARIOS - CURRENT AND PAST RELEASE (RAF OF JUNE/2021)

	Baseline			Optimistic			Pessimistic		
a. Oct/21	**2021**	**2022**	**2023-2030**	**2021**	**2022**	**2023-2030**	**2021**	**2022**	**2023-2030**
GDP at current prices (R$ bi)	8,600	9,300	12,334	8,581	9,360	12,930	8,653	9,297	12,449
GDP at current prices (%)	15.5	8.1	6.2	15.2	9.1	7.2	16.2	7.4	6.4
GDP at constant prices (%)	4.9	1.7	2.2	5.2	3.2	3.3	4.7	0.1	1.3
GDP price deflator (%)	10.1	6.3	3.9	9.6	5.7	3.8	10.9	7.3	5.0
IPCA (%)	8.7	4.0	3.1	8.5	3.3	3.0	9.1	5.3	4.2
Unemployment rate (%)	13.9	13.4	12.4	13.5	12.4	11.3	13.9	14.6	14.4
Working pop. (%)	3.0	1.5	1.1	3.5	2.1	1.6	2.5	0.1	0.7
Embi (end)	330	400	306	300	350	256	350	450	356
Exchange rate R$/US$ (end)	5.35	5.75	5.40	5.25	5.55	5.00	5.45	5.92	6.41
Real interest rate (%)	-0.4	4.3	3.3	-0.4	3.6	2.7	-0.6	4.9	5.1
Selic (%)	8.25	8.50	6.50	8.00	7.00	5.75	8.50	10.50	9.50
b. Jun/21	**2021**	**2022**	**2023-2030**	**2021**	**2022**	**2023-2030**	**2021**	**2022**	**2023-2030**
GDP at current prices (R$ bi)	8,386	8,977	11,932	8,468	9,123	12,712	8,287	8,899	11,880
GDP at current prices (%)	12.6	7.0	6.3	13.7	7.7	7.3	11.3	7.4	6.4
GDP at constant prices (%)	4.2	2.3	2.3	5.4	3.3	3.5	2.8	1.8	1.3
GDP price deflator (%)	8.0	4.6	3.9	7.9	4.3	3.7	8.3	5.5	5.1
IPCA (%)	5.7	3.6	3.2	5.5	3.2	3.0	6.5	4.4	4.4
Unemployment rate (%)	14.2	13.9	12.7	13.5	12.5	11.3	14.7	14.6	14.6
Working pop. (%)	2.1	1.4	1.2	3.5	2.0	1.6	1.5	1.0	0.7
Embi (end)	300	300	300	225	225	225	350	350	350
Exchange rate R$/US$ (end)	5.27	5.26	5.26	4.85	4.83	4.83	5.47	5.69	6.35
Real interest rate (%)	-0.2	1.8	3.3	-0.4	1.8	2.7	-0.5	2.5	5.0
Selic (%)	5.50	5.50	6.69	5.00	5.00	5.81	6.00	7.00	9.62

Source: IFI.

Drought-induced rationing of energy could remove 0.6 p.p. from GDP growth in 2022 in a pessimistic scenario. The estimate of the potential effects of the energy crisis on the GDP followed a methodology proposed by the Central Bank[16] in the June 2001 Inflation Report. The impact magnitude (predominantly absorbed by the industrial sector) result from factors such as the percentage of energy self-generation, the percentage of attenuation of the effects due to rationalization processes, geographical redirection of production and substitution of energy sources, and the share of the output of the sector located in the rationing region as well as depending on parameters associated with the energy-product elasticity.

[16] Available at: https://www.bcb.gov.br/htms/relinf/port/2001/06/ri200106b3p.pdf

The calculation of the impact on the product resulting from an effective 10% reduction in electricity consumption, which could remove 0.6 p.p. from the expected GDP growth in 2022, should be viewed with some caution. Considering this effect, the variation rate for the 2022 GDP, in volume, is 0.1%.

The intensification of uncertainties present in the baseline scenario (water and energy crisis and risks associated with fiscal and political-institutional imbalances) could further deteriorate financial asset prices and inflation expectations, requiring a more significant adjustment in monetary policy. In this environment, the risk premium would increase up to 450 points by the end of 2022, when the exchange rate could reach R$/ US$ 5.92 (higher than expected in the baseline scenario: 400 points and R$/ US$ 5.75).

A much slower reaction of the product and the labor market marks the pessimistic scenario. As inflation expectations remain above the inflation target throughout the projection horizon, the nominal interest rate is high (8.50% in 2021, 10.50% in 2022, and 9.5% on average between 2023 and 2030). On the external front, a more expressive slowdown in the growth of the Chinese economy due to the loss of dynamism of the real estate sector would also produce some adverse effects on domestic activity. Between 2023 and 2030, the average GDP growth rate is 1.3%, and the real interest rate converges to a higher level, around 5% per year.

Optimistic scenario. In the optimistic scenario, the softening of the risks mapped out above, in addition to a peaceful passage through the electoral process, would open space for higher economic growth and a faster reduction in the unemployment rate, in addition to reducing inflationary pressures derived from domestic factors. As the output gap closes faster, the GDP growth rate will grow in line with potential output by the end of 2023. Between 2023 and 2030, the average GDP growth rate is 3.3%, and the real interest rate moves towards a level of 2.7% per year.

2. FISCAL SCENARIO

2.1 Total revenue, transfers, and net revenue

2.1.1 Initial considerations

Economic growth positively affects tax collection. There is a direct relationship between tax collection and the behavior of economic activity. The higher the GDP, the higher the tax collection tends to be. However, the response of tax revenues to the boost in GDP also depends on the composition of economic expansion. In general, the sensitivity of government revenues to GDP, or the revenue-GDP elasticity, is close to unity. Nevertheless, the value of this elasticity may vary depending on the nature of the revenue (whether collected or not by the Federal Revenue Office - RFB, or whether it comes from social security collections), the economic cycle, and non-recurrent events.

In the coming weeks, the IFI will publish a study to update estimates presented in Technical Note Nº 19[17]. The results seek to measure causal relationships between GDP and government revenues, separating short and long-term time horizons, and estimate the structural fiscal result. The results contained in Note nº 19 suggest that there has been a reduction in the long-term revenue-GDP elasticity in recent years and maintenance of the magnitude of the short-term response.

For the long term, the IFI considers the revenue-GDP elasticity equal to 1; for the short term, the value considered was 1.08. In the current scenario revision, the IFI considered a long-run revenue-GDP elasticity similar to one in case revenue collection is sensitive to economic activity. For the short term, the value considered was 1.08. In 2021, the growth in tax collection has occurred at a rate higher than that of the economy. As a comparison, in the accumulated first half of 2021, the GDP grew 6.4%, according to the IBGE, while the total primary revenue of the central

[17] Available at: https://www2.senado.leg.br/bdsf/bitstream/handle/id/545264/NT_Elasticidade.pdf.

government, which includes the National Treasury, Social Security (INSS), and the Central Bank, had an increase of 28.5% in real terms, according to the National Treasury Secretariat (STN).

Until August, the last month with available information, the Federal Government's primary revenue continued to show a vigorous pace of expansion. In the eight months of the year, the indicator registered an increase of 27.6%, in real terms, compared to 2020.

The assumption of returning amounts of emergency aid received inappropriately in 2020 was maintained. In this scenario revision, we held the premise of payment to the Federal Government of Emergency Aid amounts received by individuals in 2020 who did not meet the eligibility criteria. The May 2021 issue explains how we incorporate these amounts into the income tax collection projections[18].

The expectation of nominal GDP growth in 2021 went from 12.6% to 15.5%. The new primary revenue forecasts incorporate the revision in the nominal GDP, whose values were higher due to the inflationary dynamics. Last June, the expectation was for a 12.6% increase in the nominal GDP in 2021. Now, the IFI predicts a rise of 15.5% for the indicator this year. For 2022, the IFI forecasted an increase of 7.0% in nominal GDP, while the expectation is 8.1% in the current revision.

Projections for the average oil price were revised upward, which affected the forecast for revenues not collected by RFB. Besides the revision in the nominal GDP projection, a second factor was the upward change in the average oil price on the international market. The IFI uses as a parameter the projections released by the National Agency of Petroleum, Natural Gas, and Biofuels (ANP). By way of comparison, in June, the IFI's expectation was for an average of US$ 62.2 a barrel in 2021. Now, this premise is US$ 68.7. For the years ahead, from 2022 to 2030, the current revision considers an average price of US$ 66.0, while in the June scenario update, this expectation was US$ 60.8.

The revision in the oil price premise projected natural resource revenue increase by R$ 13.7 billion in 2021. The change in the oil price assumptions produced a significant increase in the revenues from the exploration of natural resources of the Federal Government from 2021 on. For example, for this year, this revenue was revised upwards by R$ 13.7 billion. For 2022, the revision in this revenue was R$ 19.3 billion more. Furthermore, for the 2023-2030 period, there was an average annual increase of R$ 16.0 billion in this revenue projection.

The scenarios consider the maintenance of the federal tax burden at current levels. Finally, we consider the maintenance of tax burden at current levels as an underlying hypothesis, without profound changes in tax rates or tax bases. Naturally, this is an instrument that the government can use at some point to improve the trajectory of the primary result more quickly. The eventual increase in the tax burden can be applied if the government signals actions in this direction.

2.1.2 Revenue forecasts: 2021

IFI's projection for the federal government's primary revenue became R$ 1,823.6 billion in 2021. Table 6 shows the comparison between the predictions for central government revenue in 2021 in different scenario revisions (February, May, June, and October 2021). In September, we released a preliminary update. In the current revision, in the baseline scenario, primary revenue would reach R$ 1,823.6 billion in 2021, an amount R$ 55.0 billion higher than projected in June. This growth would come from an improvement in the projections of revenues both collected and non-collected by RFB.

The RGPS revenues should be R$ 452.5 billion in 2021. IFI projects R$ 452.5 billion for the RGPS revenues in 2021, R$ 2.4 billion less than expected in June (Table 6), reflecting the decrease in the projected growth of the payroll this

[18] Available at: https://www2.senado.leg.br/bdsf/bitstream/handle/id/589004/RAF52_MAI2021.pdf.

year, from 10.2% in June to 5.8% now. In the current revision, the IFI decreased the payroll growth forecast in 2021, mainly due to the behavior of the average real income. The inflationary surprise in the second and third quarters of the year has produced real contractions in salaries.

The expectation of a higher nominal GDP motivated the revision in the projection of revenues collected by RFB for 2021. As explained in the introductory part, the revenues collected by RFB forecast for 2021 (+R$ 27.9 billion) occurred due to the revision of nominal GDP growth (from 12.6% in June to 15.5% now). In turn, the increase in the projection for revenues not collected by RFB occurred due to an expectation of higher collections from the exploitation of natural resources (+ R$ 13.7 billion), dividends (+ R$ 4.9 billion), and other revenues (+ R$ 10.6 billion).

The increased rate of revenues collected by RFB in 2021 resulted from the economic activity resumption and the depressed comparison base of 2020. It is essential to point out that the recovery of economic activity, which began in the second half of 2020, has affected the revenues collected by RFB, as attested by the information from the National Treasury Secretariat (STN). Moreover, the depressing comparison base of the second quarter of 2020 also influenced the collection growth rates in 2021, when actions to mitigate the economic and social effects of the pandemic took place, such as federal taxes deferral (postponement of collection).

Revenues not collected by RFB were revised upwards by R$ 29.5 billion to R$ 232.4 billion in 2021. The IFI's projection for revenues not collected by RFB in 2021, of R$ 232.4 billion, was adjusted upwards by R$ 29.5 billion to consider some factors previously mentioned, such as the change in the assumption for the average price of oil in the international market. For 2021, the IFI now considers an average price of US$ 68.7 a barrel, against US$ 62.2 considered last June. That fact, combined with the expectation of an average exchange rate of $/US$ 5.30 during the year, should generate around R$ 80 billion in revenues from royalties for the central government, R$ 13 billion more than the forecast in the June scenario revision. This revenue comes under the rubric "exploration of natural resources" in the classification adopted by the National Treasury Secretariat.

The IFI is now considering a dividend collection of R$ 24.8 billion against R$ 19.8 billion forecasted in June. This difference results from the higher collection flow of these revenues not collected by RFB between May and August.

IFI's new projection for the Federal Government's net revenues is R$ 1,478.2 billion in 2021. The new IFI projection for the central government's net revenues[19] in 2021 is R$ 1,478.2 billion, an increase of R$ 42.5 billion compared to the June projection when the nominal GDP was estimated to increase by 12.6% in 2021 (Table 6). As previously mentioned, the IFI's new projection for nominal GDP growth in 2021 is an increase of 15.5%.

The new projection for net revenue in 2021 derives from an expectation of R$ 55.0 billion higher total revenue and R$ 12.5 billion more in transfers. The increase results from an upward revision in total primary revenue, by R$ 55.0 billion, and the change in the projection of transfers by revenue sharing, by R$ 12.5 billion, between the June update and the present report (Table 6). It is worth mentioning that the projection of government transfers is a function of revenues not collected by RFB.

[19] The Union´s net revenue corresponds to total revenues less the revenue-sharing transfer to subnational entities. An example of this deduction are the Fundos de Participação dos Estados e dos Municípios (FPE and FPM), which consist of the Income Tax and the Tax on Industrialized Products (IR and IPI) shares.

TABLE 6. CENTRAL GOVERNMENT´S REVENUE IN 2021: FEBRUARY, MAY, JUNE AND OCTOBER UPDATES.

BASELINE: 2021 (R$ mi)	Feb/21	May/21	Jun/21	Oct/21	Dif. Oct/21-Jun/21
1. Total Revenue	**1,635,861.7**	**1,662,576.0**	**1,768,583.9**	**1,823,609.2**	**55,025.3**
Revenues Collected by RFB, except RGPS and fiscal incentives	1,007,006.1	10,26,499.7	1,110,764.8	1,138,723.4	27,958.7
RGPS Revenues	446,492.9	447,168.4	454,917.9	452,545.3	-2,372.6
Revenues not Collected by RFB	182,362.7	188,941.7	202,935.1	232,426.4	29,491.3
Fiscal Incentives	0.0	-33.8	-33.8	-85.9	-52.0
2. Transfers by revenue sharing	**302,570.5**	**304,788.7**	**332,928.4**	**345,407.2**	**12,478.8**
3. Net revenue [(1)-(2)]	**1,333,291.2**	**1,357,787.3**	**1,435,655.6**	**1,478,202.1**	**42,546.5**
OPTIMISTIC: 2021 (R$ mi)	**Feb/21**	**May/21**	**Jun/21**	**Oct/21**	**Dif Oct/21-Jun/21**
1. Total Revenue	**1,674,400.4**	**1,693,118.6**	**1,808,935.9**	**1,837,143.3**	**28,207.3**
Revenues Collected by RFB, except RGPS and fiscal incentives	1,022,432.2	1,040,919.2	1,129,184.5	1,143,898.0	14,713.4
RGPS Revenues	451,190.0	451,478.0	458,763.5	452,627.2	-6,136.3
Revenues not Collected by RFB	200,778.2	200,755.2	221,021.8	240,704.0	19,682.2
Fiscal Incentives	0.0	-33.8	-33.8	-85.9	-52.0
2. Transfers by revenue sharing	**307,205.5**	**312,175.8**	**341,577.2**	**348,717.3**	**7,140.1**
3. Net revenue [(1)-(2)]	**1,367,194.9**	**1,380,942.8**	**1,467,358.7**	**1,488,425.9**	**21,067.2**
PESSIMISTIC: 2021 (R$ mi)	**Feb/21**	**May/21**	**Jun/21**	**Oct/21**	**Dif Oct/21-Jun/21**
1. Total Revenue	**1,593,122.0**	**1,628,453.7**	**1,713,104.3**	**1,794,793.6**	**81,689.3**
Revenues Collected by RFB, except RGPS and fiscal incentives	994,855.7	1,008,029.3	1,089,086.6	1,136,904.7	47,818.0
RGPS Revenues	441,429.2	442,767.5	447,547.2	448,271.2	724.0
Revenues not Collected by RFB	156,837.0	177,690.8	176,504.3	209,703.5	33,199.2
Fiscal Incentives	0.0	-33.8	-33.8	-85.9	-52.0
2. Transfers by revenue sharing	**298,919.7**	**301,699.2**	**328,804.1**	**346,489.7**	**17,685.6**
3. Net revenue [(1)-(2)]	**1,294,202.3**	**1,326,754.5**	**1,384,300.3**	**1,448,303.9**	**64,003.6**

Fonte: Secretaria do Tesouro Nacional. Elaboração: IFI.

2.1.3 Revenues forecasts: 2021-2030

Table 7 presents a comparison between the projections of the central government's total primary revenue and net revenue, as proportions of GDP, and the GDP growth (volume and nominal), for each update: May, June, and October 2021, over a 10-year horizon.

The new forecast for total primary revenue in 2021 corresponds to 21.2% of GDP. According to Table 7, in the IFI's baseline scenario, updated in October 2021, total primary revenue would reach 21.2% of GDP this year, against 21.1% in last June's expectation and 20.5% in May. The IFI's projection for real economic growth in 2021 moved upwards from 4.2% to 4.9%.

TABLE 7. REVENUE FORECASTS (% OF GDP) AND GDP - BASELINE; COMPARISON BETWEEN MAY, JUNE, AND OCTOBER 2021 UPDATES.

Total revenue - % of GDP	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
October/2021	21.2	21.0	20.9	20.9	20.9	20.9	20.9	20.8	20.8	20.8
June/2021	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.0	21.1
May/2021	20.5	20.7	20.9	21.1	21.2	21.2	21.3	21.3	21.3	21.3
Net revenue - % of GDP	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**
October/2021	17.2	17.0	17.0	17.0	16.9	16.9	16.9	16.9	16.9	16.9
June/2021	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1
May/2021	16.7	16.8	17.0	17.1	17.2	17.2	17.2	17.2	17.2	17.2
GDP at constant prices (%)	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**
October/2021	4.9	1.7	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3
June/2021	4.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
May/2021	3.0	2.6	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
GDP at current prices - R$ bi	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**
October/2021	8,600	9,300	9,922	10,543	11,189	11,868	12,590	13,356	14,170	15,038
June/2021	8,386	8,977	9,549	10,154	10,791	11,466	12,183	12,945	13,754	14,614
May/2021	8,106	8,657	9,192	9,768	10,373	11,014	11,695	12,418	13,186	14,002

Source: IBGE, National Treasury Secretariat, and Central Bank. Prepared by: IFI.

As a proportion of GDP, there was no significant change in total and net revenues trajectories over the projection horizon. The difference in nominal values is due to the change in the nominal GDP, which started to grow more in 2021, 2022, and 2023, relative to the last scenario revision. The variation rates for nominal GDP from 2024 onwards dropped 0.2 p.p. (from 6.3% to 6.1%).

Net revenue projected for the 2022 to 2030 horizon corresponds to 17% of GDP, below 2019. As a proportion of GDP, the central government´s net revenue should remain at 17.0% from 2022 to 2030, below 2019 (17.4%), in the absence of the R$ 70 billion collected in December of that year revision of the pre-salt onerous transfer contract. Without this non-recurring event, the net revenue calculated for 2019 was 18.2% of GDP.

Tables 8, 9, and 10 present the projections for total gross revenue and its components, as well as forecasts for transfers to subnational entities and net revenue in the baseline, optimistic and pessimistic scenarios, for the period 2021 to 2030.

Continued economic growth would positively influence tax collection in the coming years. On the side of revenues collected by RFB, the baseline and optimistic scenarios consider a pickup starting in 2021 and the consolidation of this increase in the following years, as the economy's growth converges to around 2.2% (baseline scenario) and 3.5% (optimistic). The maintenance of continued real growth of the GDP will allow a recomposition of the bases of incidence of various taxes, eventually increasing, for some time, the elasticities of government revenues.

The pessimistic scenario foresees lower rates of economic expansion, but tax collection would continue to rise. The pessimistic scenario projections also improved in the current revision due to the modification made to the nominal GDP projection. Real growth in this scenario was revised from a high of 2.8% in 2021 to 4.7%. This rate would stabilize at 1.3% per year until the middle of the decade, the same path presented in the June review. In any case, the increase in the GDP values in the pessimistic scenario in 2021 influences revenues collected by the RFB, turning the values higher in the years ahead.

TABLE 8. BASELINE SCENARIO - R$ BILLION

Breakdown	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Total revenue	**1,467.8**	**1,823.6**	**1,951.4**	**2,073.9**	**2,202.4**	**2,336.0**	**2,477.7**	**2,627.6**	**2,784.0**	**2,949.4**	**3,129.0**
Revenues Collected by RFB, except RGPS	899.5	1,138.7	1,225.2	1,307.1	1,388.9	1,474.1	1,563.5	1,658.6	1,759.5	1,866.8	1,981.2
RGPS Revenues	404.8	452.5	489.8	519.3	551.8	585.5	621.2	658.6	695.5	733.6	778.1
Revenues not Collected by RFB	163.6	232.4	236.4	247.5	261.7	276.5	292.9	310.4	329.1	349.0	369.8
Transfers by revenue sharing	**263.8**	**345.4**	**366.4**	**391.0**	**415.4**	**440.9**	**467.7**	**496.1**	**526.3**	**558.4**	**592.6**
Net revenue	**1,204.0**	**1,478.2**	**1,585.0**	**1,682.9**	**1,787.0**	**1,895.1**	**2,010.0**	**2,131.5**	**2,257.8**	**2,391.0**	**2,536.4**

Source: National Treasury Secretariat. Prepared by: IFI.

TABLE 9. OPTIMISTIC SCENARIO - R$ BILLION

Breakdown	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Total revenue	**1,467.8**	**1,837.1**	**1,988.6**	**2,120.8**	**2,263.7**	**2,424.7**	**2,593.8**	**2,776.4**	**2,973.8**	**3,187.3**	**3,417.1**
Revenues Collected by RFB, except RGPS	899.5	1,143.9	1,233.2	1,319.7	1,411.6	1,512.1	1,620.9	1,738.6	1,866.1	2,004.5	2,153.7
RGPS Revenues	404.8	452.6	493.4	525.7	562.9	603.2	641.7	683.1	727.7	775.8	827.2
Revenues not Collected by RFB	163.6	240.7	262.0	275.4	289.3	309.4	331.2	354.7	380.0	407.1	436.1
Transfers by revenue sharing	**263.8**	**348.7**	**368.8**	**394.7**	**422.2**	**452.3**	**484.8**	**520.0**	**558.2**	**599.5**	**644.2**
Net revenue	**1,204.0**	**1,488.4**	**1,619.8**	**1,726.1**	**1,841.5**	**1,972.4**	**2,109.0**	**2,256.4**	**2,415.6**	**2,587.8**	**2,772.9**

Source: National Treasury Secretariat. Prepared by: IFI.

TABLE 10. PESSIMISTIC SCENARIO - R$ BILLION

Breakdown	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Total revenue	**1,467.8**	**1,794.8**	**1,900.3**	**2,026.1**	**2,150.1**	**2,279.5**	**2,418.2**	**2,565.6**	**2,722.0**	**2,888.1**	**3,063.4**
Revenues Collected by RFB, except RGPS	899.5	1,136.9	1,212.7	1,296.7	1,379.5	1,466.7	1,559.6	1,658.3	1,763.2	1,874.7	1,992.5
RGPS Revenues	404.8	448.3	479.6	508.4	536.5	566.2	597.6	630.7	665.6	702.4	740.9
Revenues not Collected by RFB	163.6	209.7	207.9	221.0	234.1	246.6	261.0	276.6	293.3	311.0	330.0
Transfers by revenue sharing	**263.8**	**346.5**	**362.7**	**387.9**	**412.6**	**438.7**	**466.5**	**496.0**	**527.4**	**560.7**	**595.9**
Net revenue	**1,204.0**	**1,448.3**	**1,537.5**	**1,638.3**	**1,737.6**	**1,840.9**	**1,951.8**	**2,069.6**	**2,194.7**	**2,327.4**	**2,467.4**

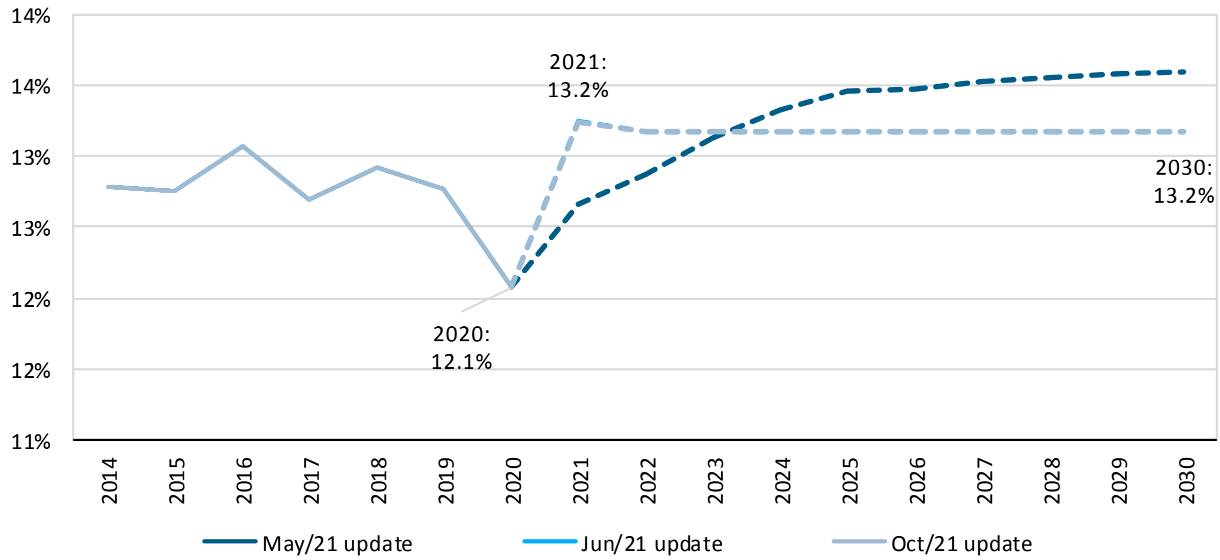
Source: National Treasury Secretariat. Prepared by: IFI.

Revenues collected by RFB forecast represent 13.2% of GDP between 2021 and 2030. Figure 7 presents the central government's revenues collected by RFB forecasted by the IFI in the baseline scenario, excluding the RGPS revenues, as a proportion of the GDP, from 2021 to 2030. On average, the revenues collected by RFB would correspond to 13.2% of GDP.

In 2020, the most pronounced reduction reflected the weakening of economic activity, tax deferrals, and the one-off reduction in the rates of some federal taxes, such as the IOF on credit operations.

The recovery of revenues collected by RFB, starting in 2021, should occur vigorously, staying above the level recorded in 2019 (12.8% of GDP). Revenues would remain at 13.2% of GDP in the absence of relevant events, as an increase in the tax burden of the economy.

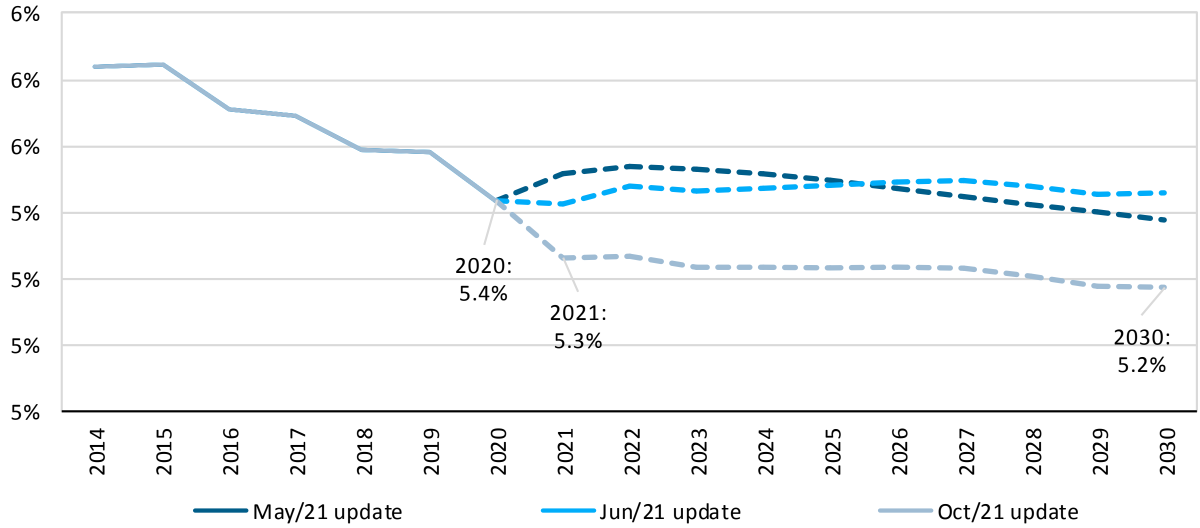
FIGURE 7. REVENUES COLLECTED BY THE RFB (% OF GDP): MAY/21, JUN/21 AND OCTOBER/21 UPDATES (BASELINE)



Source: National Treasury and Central Bank. Prepared by: IFI.

As a proportion of GDP, the net collection of the RGPS has been losing share in recent years. Figure 8 shows the comparison between the projections for the net revenues of the RGPS in the baseline scenario (current, May, and June 2021). The drop in economic activity and the deferral of employers' share of Social Security influenced the RGPS values in 2020.

FIGURE 8. RGPS REVENUES (% OF GDP): MAY/21, JUN/21 AND OCTOBER/21 UPDATES (BASELINE)



Source: National Treasury and Central Bank. Prepared by: IFI.

By 2030, RGPS revenues would be 5.2% of GDP. The current revision maintained RGPS revenues as a proportion of GDP at 5.2% in 2030, slightly below 5.3% expected in 2021.

Effects of the pandemic on the labor market may affect the collection for the RGPS in the coming years. An important consideration to be made and that supports the hypothesis of no recovery in the RGPS revenues, as a proportion of GDP, between 2021 and 2030, concerns the possibility that the pandemic is generating structural changes in labor relations, with more acute effects on less qualified workers[20].

According to the article by Fernando Veloso, published in the IBRE Blog, the pandemic may generate adverse effects for creating good quality jobs that ensure an adequate degree of social protection. The reasons for this would be as follows: (i) companies will tend to adopt remote work modalities, which benefits the most qualified workers since their productivity level remain unaffected in home-office; (ii) the relocation of productive activities from offices to homes affects a critical portion of less qualified workers, widely employed in sectors of accommodation, food, personal services, and passenger transportation; (iii) the possibility of employment creation concentrated in large companies, since small and medium-sized companies may have more difficulty in surviving the effects of the pandemic due to less access to credit, for example. Smaller companies usually employ a more significant portion of less qualified workers, and (iv) faster advance of automation with the pandemic. This process has already been occurring and affects less qualified labor.

Such changes may have a permanent effect on social security revenues. This type of hypothesis lacks more in-depth studies as more information becomes available.

Higher average oil prices and a more depreciated exchange rate influenced revenues not collected by RFB forecasts. The most crucial change in the projection of revenues not collected by RFB for the 2021 to 2030 horizon occurred, as mentioned earlier, in the collection from the exploitation of natural resources. The IFI now considers higher average oil prices in the international market than those in the scenario revision presented in June and a higher exchange rate depreciation for the entire projection horizon.

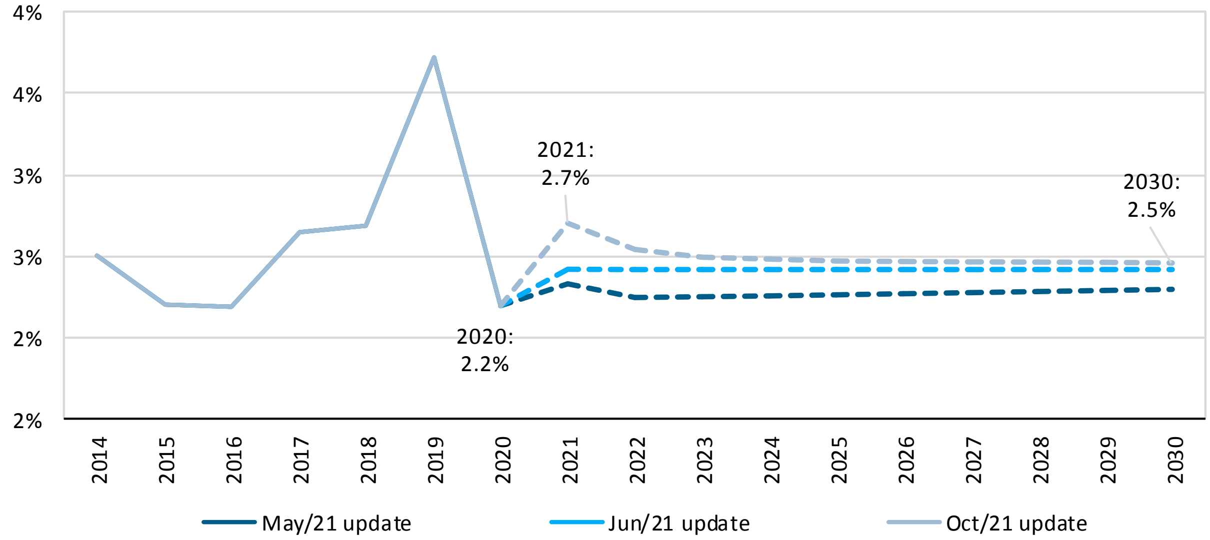
[20] Evidence from labor market data in the United States: https://blogdoibre.fgv.br/posts/o-impacto-da-pandemia-no-mercado-de-trabalho.

Specifically for 2021, the projections of revenues from dividends and other revenues were revised upwards since the collections calculated between May and August have been higher than projected last June.

We maintain the relatively constant participation of revenues not collected by RFB in the GDP over the projection horizon in the current revision. Revenues not collected by RFB should remain stable to GDP over the next few years, considering that the government will continue to strive to collect revenues from, for example, auctions and concessions of infrastructure assets. In addition, the resumption of economic growth, even at a rate of 2.2%, in the IFI's baseline scenario, should create a more favorable economic environment for the increase in the collection of these revenues.

Figure 9 compares the trajectories of the revenues not collected by RFB forecasts, as a proportion of GDP, for the current, May, and June 2021 revisions, all in the baseline scenario. Growth intensification from 2.2% of GDP in 2020 to 2.7% of GDP in 2021 is due to modifications of specific groups. The maintenance of the level at 2.5% of GDP as of 2022 reflects the expectation of higher collections from royalties.

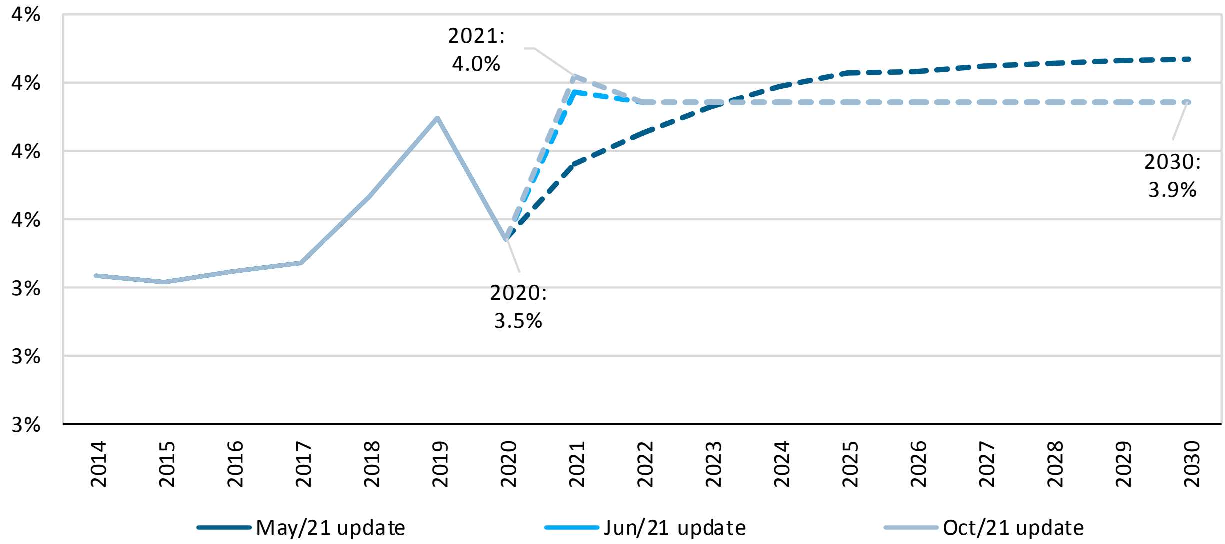
FIGURE 9. REVENUES NOT COLLECTED BY THE RFB (% OF GDP): MAY/21, JUN/21 AND OCTOBER/21 UPDATES (BASELINE)



Source: National Treasury and Central Bank. Prepared by: IFI.

Scenarios for transfers to the subnational entities follow the trajectory of revenues collected by the RFB. Figure 10 presents the projections for transfers to States and Municipalities. After the retraction observed in 2020 (as a proportion of GDP), transfers should recover in the coming years. We choose to link the dynamics of the transfers to the revenues collected by the RFB trajectory during the forecast horizon. The absence of projections, for now, for the taxes affected by the transfer percentage explains this assumption.

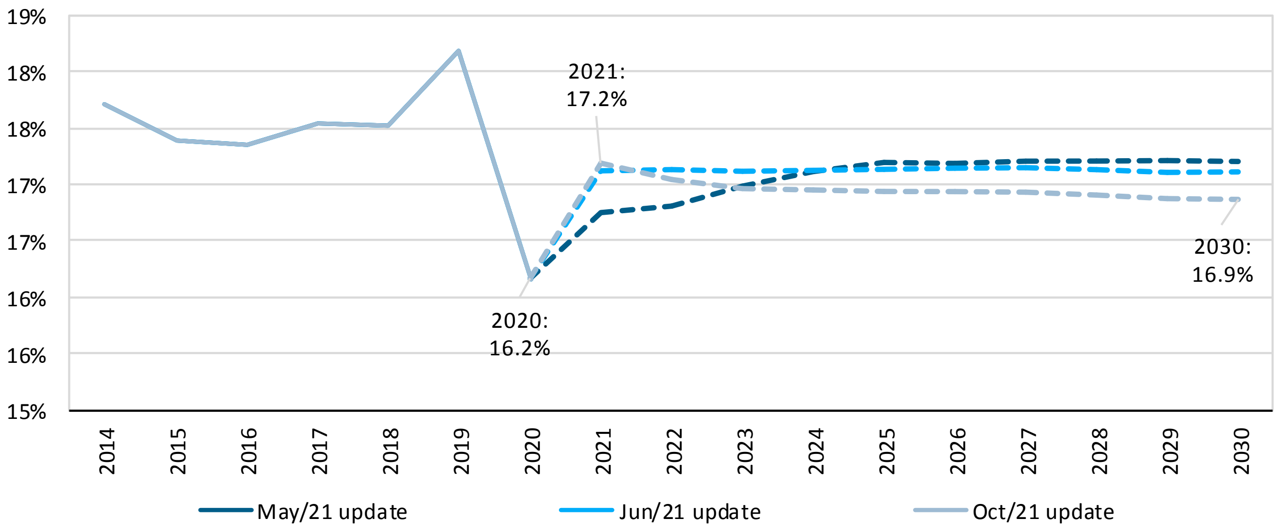
FIGURE 10. TRANSFERS (% OF GDP): MAY/21, JUN/21 AND OCTOBER/21 UPDATES (BASELINE)



Source: National Treasury and Central Bank. Prepared by: IFI.

The central government´s net revenue should recover 1 p.p. of GDP in 2021. Finally, Figure 11 presents the projection of net revenue from 2021 to 2030. For the same reasons behind the revenue collected by the RFB and RGPS revenue paths, net revenue fell to 16.2% of GDP in 2020. For 2021, the central government´s net revenue should recover 1 p.p. of GDP, following the expected movement for both revenues collected and not collected by the RFB. The net revenue recomposition should remain at 17% of GDP until the end of the forecast horizon (2030).

FIGURE 11. NET REVENUE (% OF GDP): MAY/21, JUN/21 AND OCTOBER/21 UPDATES (BASELINE)



Source: National Treasury and Central Bank. Prepared by: IFI.

2.2 Union's primary expenditures and primary balance scenario

The new central government's primary deficit projection in 2021 is R$ 158.3 billion or 1.8% of GDP. The deficit is lower than the R$ 197.0 billion projected by the IFI in June. The main factor is the expected growth in tax collection, as discussed in the previous section. On the expenditure side, the projection grew by only R$ 3.9 billion. After the first nine months of the year, the scenario for 2021 becomes more precise. For 2022, however, doubts remain about spending on Auxílio Brasil, a substitute for Bolsa Família, and court-ordered debts. Both the magnitude of these expenses and the impact on compliance with fiscal rules are still uncertain. There is also the possibility of an extension of the Emergency Aid beyond 2021.

On the date of publication of this report, the federal government's strategy for financing Auxílio Brasil and the announcement of the Emergency Aid extension was pre-scheduled. The possibility to finance part of the expenses excluded from the ceiling was being discussed, which produced turbulence in the markets, with significant effects on the exchange rate and stock market quotations on October 19. Promptly, if the announcement of this strategy is confirmed, the IFI will publish evaluations regarding the fiscal impacts.

With all these considerations in mind, the scenario for this year and the next has improved, with revenue growth and nominal GDP playing a predominant role. In addition, the evolution of inflation over 2022 may make it easier to comply with the spending ceiling in 2023. In a way, it is the transfer of the effect expected for 2022, frustrated by the persistence of high inflation between June and December 2021.

On the other hand, the outlook for the medium term is worse. The primary balance should become positive only in 2026, compared to 2025 in the previous scenario. We analyze these and other issues in the following topics. The approval of the Constitutional Amendment Bill (PEC in the original acronym) nº 23 may open space for the expansion of primary spending through the postponement of part of the expenses with court-ordered debts, most likely replaced by social spending and rapporteur's amendments to the budget.

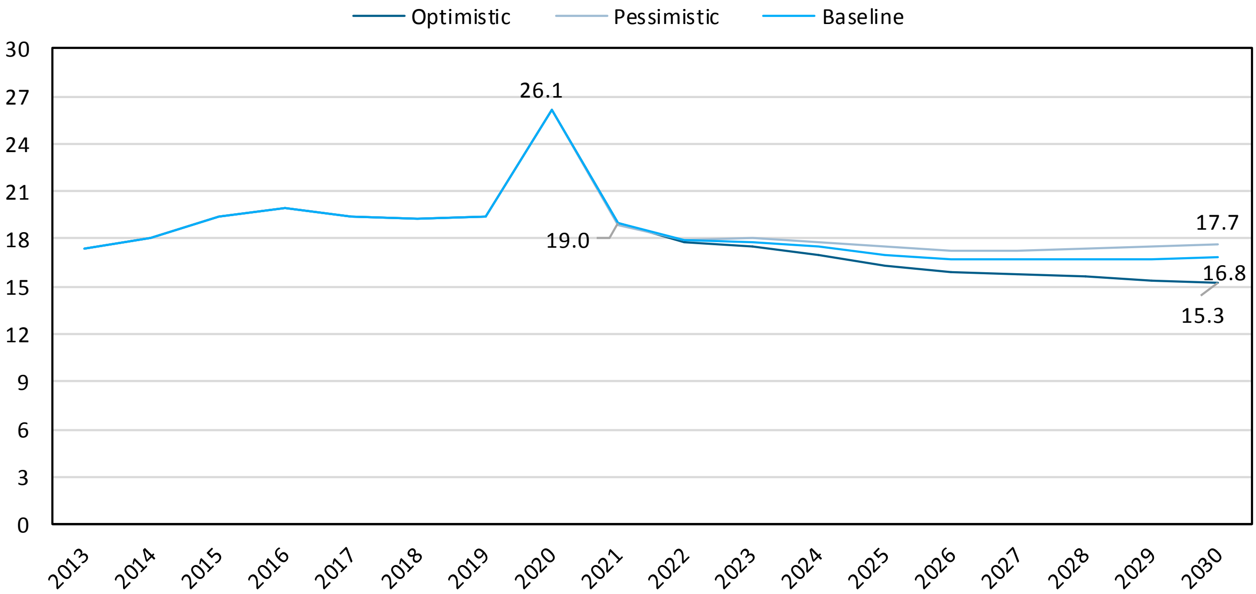
2.2.1 Primary expenditures new projections

In the baseline scenario, primary expenditure should reach R$ 1,636.5 billion or 19.0% of GDP in 2021 (Figure 12). To elaborate on the new scenarios, we used values realized until September 2021. In the last month, IFI collected the data in the system Siga Brasil of the Federal Senate. The decrease from the 26.1% of GDP reached in 2020 was predictable, considering the 7% of GDP spent with the pandemic last year.

However, even without the expenses with COVID-19, in the last two years, the primary expenditure would still present a significant reduction: from 19.1% to 17.6% of GDP. In the baseline scenario, spending would reach 16.8% of GDP in 2030. In the alternative scenarios, primary expenditure varies basically as a function of macroeconomic parameters, such as inflation and GDP.

We will comment on the main factors behind the new central government primary spending projections throughout this topic.

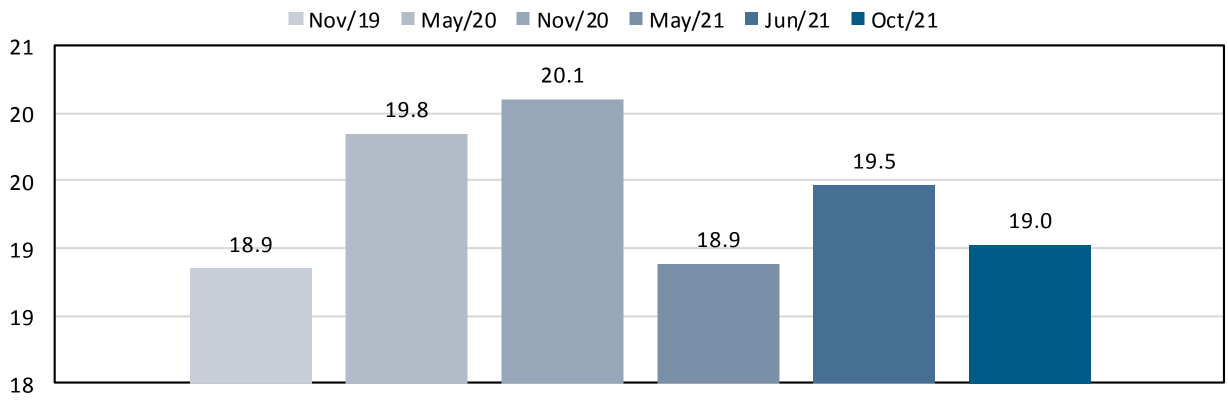
FIGURE 12. PRIMARY EXPENDITURE - IFI SCENARIOS (% OF PIB)



Source: Treasury(2014 to 2020) and IFI (following years).

The new expenditure projection for 2021 suggests a nominal growth of 0.2% compared to June. As a percentage of GDP, however, there is a drop of 0.5 p.p. (Figure 13), explained by the significant growth in the IFI's projection for nominal GDP in the period. In other words, the expected expenditure increased, but the evolution of nominal GDP was even more remarkable, causing the expenditure to drop as a percentage of GDP. Figure 13 shows how the IFI's projection for the central government primary expenditure in 2021 evolved. It reached 20.1% of GDP in November 2020. Once again, the role of nominal GDP was predominant. At the time, expectations for real GDP growth and inflation were lower than they are today.

FIGURE 13. PRIMARY EXPENDITURE - 2021 (% OF PIB)



Source: IFI.

Table 11 compares the IFI baseline scenario for 2021 primary expenditure with a) the realized 2020 data; b) the Executive's most recent projections; and c) the IFI projections in the June scenario. We then comment on some of the most relevant changes over the period.

TABLE 11. OCT/21 VERSUS JUN/21 FORECASTS FOR PRIMARY EXPENDITURE IN 2021 - BASELINE

Discriminação	2020	2021 Forecasts			Comparative					
		Executive	IFI		IFI (oct) *vs* 2020		IFI (oct) *vs* Executive (sep)		IFI (oct) *vs* IFI (jun)	
		Sep/21	Jun/21	Oct/21	var.	var. %	var.	var. %	var.	var. %
Primary Expenditure	1,947.0	1,656.5	1,632.7	1,636.5	-310.5	-15.9	-20.0	-1.2	3.9	0.2
Mandatory	1,838.8	1,531.6	1,503.7	1,506.9	-331.9	-18.0	-24.6	-1.6	3.3	0.2
Social Security (RGPS)	663.9	709.9	704.5	708.8	44.9	6.8	-1.1	-0.2	4.3	0.6
Personnel	321.3	330.8	332.7	331.8	10.5	3.3	1.0	0.3	-0.9	-0.3
Allowance and insurance	59.6	49.0	53.3	46.1	-13.4	-22.5	-2.8	-5.7	-7.1	-13.4
BPC	62.7	68.5	66.9	67.8	5.2	8.2	-0.7	-1.0	0.9	1.4
Bolsa Família	19.0	25.4	26.5	23.8	4.7	24.8	-1.6	-6.3	-2.8	-10.4
Other mandatory	712.3	348.1	319.8	328.6	-383.7	-53.9	-19.5	-5.6	8.9	2.8
Discretionary (Executive)	108.2	124.9	129.0	129.6	21.4	19.8	4.6	3.7	0.6	0.4
Memo:										
Spending on COVID-19	*520.9*	*134.0*	*114.8*	*124.5*	*-396.4*	*-76.1*	*-9.5*	*-7.1*	*9.8*	*8.5*
Others	*1,426.1*	*1,522.5*	*1,517.9*	*1,512.0*	*85.9*	*6.0*	*-10.5*	*-0.7*	*-5.9*	*-0.4*

Fonte: National Treasury and IFI. Prepared by: IFI.

The social security benefits forecast was revised upward by incorporating data through September. Excluding expenses with court rulings and court-ordered debts, the nominal growth in social security expenses from January to September is 6.6% compared to the same period in 2020. With data for much of the fiscal year, we now adopt this percentage for the growth of pension spending (excluding court rulings and court-ordered debts). Until the June revision, we expected a nominal growth of 6.0% in 2021. Including court rulings and court-ordered debts, the growth was 6.1%, and now it is 6.8%. With this, the projection for RGPS expenses increased from R$ 704.5 billion to R$ 708.8 billion, compared to the R$ 709.9 billion estimated by the Executive in the last bimonthly evaluation[21]. Compared to 2020, the R$ 708.8 billion would represent a nominal growth of 6.8%, confirming the deceleration observed in recent years.

The projection for personnel expenses and social contribution showed a slight decrease between the last two reviews. The nominal growth in personnel expenses, excluding court rulings and court-ordered debts, is 1.8% from January to September. With little time left before the end of the year and no significant readjustments or hiring forecast for 2021, in this review, we adopted this percentage to project the growth for the year. By adding the expenses with court rulings and court-ordered debts, the personnel expense would go from R$ 321.3 billion in 2020 to R$ 331.8 billion in 2021, an increase of 3.3%. The IFI's estimate is slightly higher than the R$ 330.8 billion forecast by the government in September.

Recent data availability also led to an increase in the forecast for spending on BPC. Without considering court rulings and court-ordered debts, spending on BPC shows a nominal growth of 8.1% from January to September. However, this rate has accelerated in recent months. Between May and September, the average growth, compared to the same month in 2020, was 9.9%, against 5.9% from January to April. For this reason, our estimate for spending considers the maintenance of the rate of 9.9% observed in recent months in the last quarter. In 2021, the increase in expenses, excluding court rulings and court-ordered debts, would be 8.6%, and expenses would reach R$ 66.6 billion. By incorporating the projection for court rulings and court-ordered debts, the estimate for 2021 reaches R$ 67.8 billion,

[21] Available at: https://www.tesourotransparente.gov.br/publicacoes/relatorio-de-avaliacao-de-receitas-e-despesas-primariasrardp/2021/16?ano_selecionado=2021.

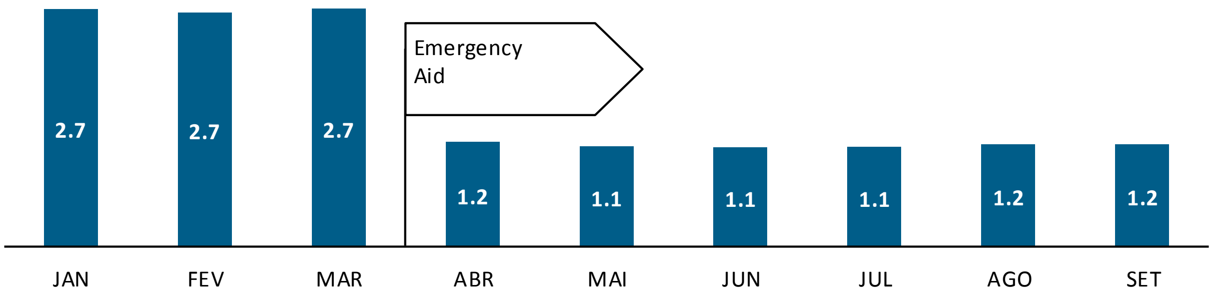
above the R$ 66.9 billion estimated in September. The current projection of the Executive Branch is slightly higher, R$ 68.5 billion.

Expenditure on the Bolsa Família program is expected to be R$ 23.8 billion, excluding the Emergency Aid. The assumption adopted by the IFI is that the Emergency Aid will be in effect for seven months and, in the last two months, the payments from Auxílio Brasil begin. By hypothesis, we consider that the new program will lead to a monthly expenditure of R$ 3.9 billion, about 40% above the R$ 2.7 billion spent today with the Bolsa Família in the months when there is no payment Emergency Aid (Figure 14). The increase simulates an expansion of the Bolsa Família in which the average benefit increased by 30%, and the number of beneficiaries was 10% higher.

It is worth remembering that the Auxílio Brasil substitutes the Bolsa Família whenever it is more advantageous for the beneficiary and, therefore, directly interferes with the program's execution. During the term of the Emergency Aid, the monthly expenditure of the Bolsa Família has been, on average, only R$ 1.1 billion. In 2020, Bolsa Família's spending was only R$ 19.0 billion, but the Executive's current projection is R$ 25.4 billion.

The space generated by the migration of expenses from Bolsa Família to the Emergency Aid can only be used for welfare expenses, i.e., it could serve as a source for the Emergency Aid in the last two months of 2020.

FIGURE 14. BOLSA FAMÍLIA EXECUTION IN 2021 (R$ BILLION)



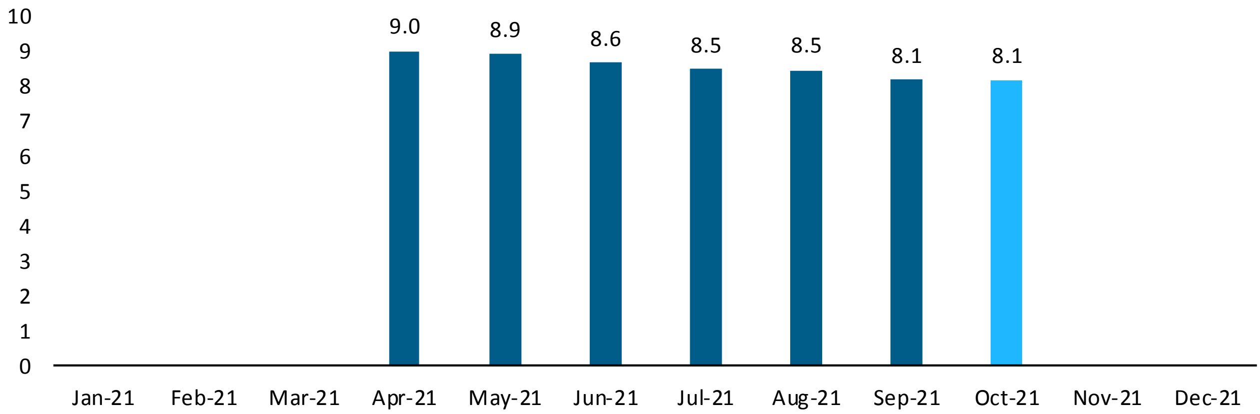
Source: Siga Brasil. Prepared by: IFI.

Auxílio Brasil's expenditure remains uncertain, given the lack of detailed information about the program[22]. It is also unclear whether the new benefit will begin in 2021. Emergency Aid, in this case, could be extended until the end of the year or possibly until 2022. In this conjecture, the portion of the Bolsa Família that would migrate to the emergency program in 2021 would be even higher, and the portion spent within the spending ceiling would fall to something close to R$ 18.4 billion. For now, this possibility is not in the baseline, and we have maintained the assumption that Auxílio-Brasil begins in November.

The Emergency Aid will cost R$ 59.7 billion in 2021 without contemplating payments beyond October. The current projection incorporates the seventh installment of the benefit, not yet foreseen in the June scenarios, and the most recent data on the program's execution, which show a slight drop in monthly expenditure (Figure 15). Expenditure showed signs that it would be closer to R$ 9.0 billion in the first two months of the program but ended September at R$ 8.1 billion. Suppose spending remains at the same level as September in October (the last month of the benefit). In that case, the total expense of the Emergency Aid will be R$ 59.7 billion, below the budget forecast for the program, which is R$ 62.6 billion.

[22] On October 19, the announcement of the funding strategy for Auxílio Brasil and/or new installments of the Emergency Aid was pre-scheduled for October 20. If there is new information, the IFI will evaluate it promptly. The discussion at hand involves creating new expenses excluded from the ceiling and the increase in the average Bolsa Família benefit, in the context of Auxílio Brasil.

FIGURE 15. EMEREGENCY AID
(R$ BILLION)



Source: Siga Brasil. Prepared by: IFI.

Spending on the federal government's Emergency Benefit for Income and Employment Preservation (BEm) should be lower than initially projected. The IFI's projection, which was R$ 10.0 billion up to June, is now R$ 8.0 billion in the current scenarios, due to the end of the program's validity in August. The expenditure until September is R$ 7.7 billion, but our projection considers that some residual payments may still occur in the last months of the year.

In total, spending on COVID-19 should reach R$ 124.5 billion by 2021. In addition to Emergency Aid and BEm, the expenditures mainly involve vaccination and health services. Last year, these expenses reached R$ 520.9 billion, or 7% of GDP. Therefore, a substantial reduction in the fiscal stimulus. The Executive's estimate for 2021 is R$ 134.0 billion. The difference to our current forecast is basically due to the government's higher projections for Emergency Aid and BEm. Even without COVID-19 expenditures in 2020 and 2021, primary spending presents a significant reduction: 19.1% to 17.6% of GDP (Figure 16). The second consecutive decline, given that 2020 had already fallen below the R$ 19.3% of GDP in 2019.

IFI's projection for spending by the Legislative, Judiciary, Prosecutor's Office, and Public Defender's Office (DPU) remain below the Executive's forecast. The Executive's projections for spending by the other Branches reflect the budget allocation and, therefore, are not very sensitive to the execution in the year. Since the beginning of 2021, the realized data have shown an essential retreat to the forecast in the Budget. The trend has been partially reversed in recent months, but spending is still expected to end the year at a level lower than that foreseen in the official projections. Until April, spending fell, in nominal terms, about 8% compared to the same period in 2020. From May to September, however, the growth was 5.4%. By incorporating the most recent performance, the projection for the expenses of the other Powers reaches R$ 11.5 billion, higher than the R$ 11.2 billion in 2020 but lower than the R$ 13.9 billion provided by the government in the evaluation report of the 4th bimester.

Expenditure on the salary allowance will stand at R$ 10.2 billion in 2021. The last payments occurred in June and referred to the base year 2019. Those for the base year 2020, related to the period between July 2021 and June 2022, will happen between January and December 2022. CODEFAT's Resolution Nº 896 of March 23, 2021, changed the benefit payment calendar. The practical consequence is that the expenditure in the second half of this year was postponed to 2022, generating a gap specifically in 2021. As of next year, the expense will normalize with the payments of the base year 2020. The reduction compared to the R$ 19.6 billion spent last year does not refer, therefore, to an effective economy of resources, but only to a change in the program operation. The expenditures with unemployment insurance were revised downwards after incorporating the execution of the program until September. The projection for 2021 is R$ 36.0 billion, compared to R$ 39.6 billion in the June scenarios.

For 2022, the uncertainty regarding primary expenditure is high. The budget for court-ordered debts for next year is R$ 89.1 billion, according to the Annual Budget Bill (PLOA). The Provisional Measure (MP) nº 1.061 of 2021 created the Auxílio Brasil to substitute Bolsa Família, but how much does the government expect to spend on the program? If there is a fiscal impact, how will it be compensated? Faced with the impasse, will there be an extension of the Emergency Aid, which runs outside the ceiling?

Furthermore, what is the ceiling to comply with next year? Will the current rule be maintained, or will Congress change it? Other questions include the magnitude of the rapporteur's amendments for the third year in a row, foreseen in the Budget Guidelines Law (LDO).

We can address part of these questions on the date of publication of this report, due to an eventual government press conference, as mentioned. In any case, the risks are increased expenses excluded from the ceiling and a change in the system of court-ordered debts and/or the spending ceiling to open up some slack in the constitutional limit in 2022. About this discussion, see Comentários da IFI (CI) nº 11, 12 and 13[23].

For now, an outdated Budget Bill with an increasingly short timeframe. In it, the R$ 89.1 billion in court rulings and court-ordered debts would be fully paid within the spending ceiling. On the other hand, there is no forecast for the increase in expenses with the Auxílio Brasil, set at R$ 34.7 billion. The forecast for discretionary spending and parliamentary amendments does not include the rapporteur's amendments. The projection for primary expenditures is R$ 1,646.5 billion, or 17.5% of GDP, and the spending ceiling would be met with no slack according to the PLOA scenario.

Table 12 details the central government's primary expenditure in the PLOA 2022 and the IFI's baseline scenario. We have outlined two distinct hypotheses for spending on Auxílio Brasil, which will replace the current Bolsa Família. In the first of them (hypothesis A), the expenditures with the new program reach R$ 46.0 billion, against R$ 34.7 billion in the 2022 PLOA. The difference assumes that Auxílio Brasil will increase spending, arising from the adjustment of the average benefit and the increase in the number of families assisted. In hypothesis B, spending on Auxílio Brasil is the same as in the PLOA. Since, in both cases, the spending ceiling is met, the increase in the expenditure foreseen with the new program would be offset by the reduction in discretionary spending by the Executive Branch. The last two columns of Table 12 compare the PLOA scenario with the IFI scenario in which there is an increase in spending with the creation of Auxílio Brasil.

In the IFI baseline scenario, the projection for primary expenditure in 2022 is R$ 1,664.7 billion or 17.9% of GDP. As in the PLOA, the spending ceiling is met with no slack in our scenarios for next year. The difference of R$ 18.2 billion to the R$ 1,646.5 billion of the PLOA is explained by expenses not subject to the rule. In particular, the difference is basically due to expenses arising from extraordinary credits. In the IFI scenario, R$ 15.0 billion are foreseen as extraordinary credits since the perspective is that there will still be expenses linked to the pandemic in 2022. In the PLOA scenario, these expenses are not traditionally foreseen, being incorporated into the official projections as credits are opened during the year.

In the scenario in which the expenditures of the Auxílio Brasil amount to R$ 46.0 billion, the discretionary expenses would reach R$ 116.5 billion. This value would be historically low but still above what we consider the minimum level for spending to avoid a shutdown.

[23] Availabe at: www.senado.leg.br/IFI.

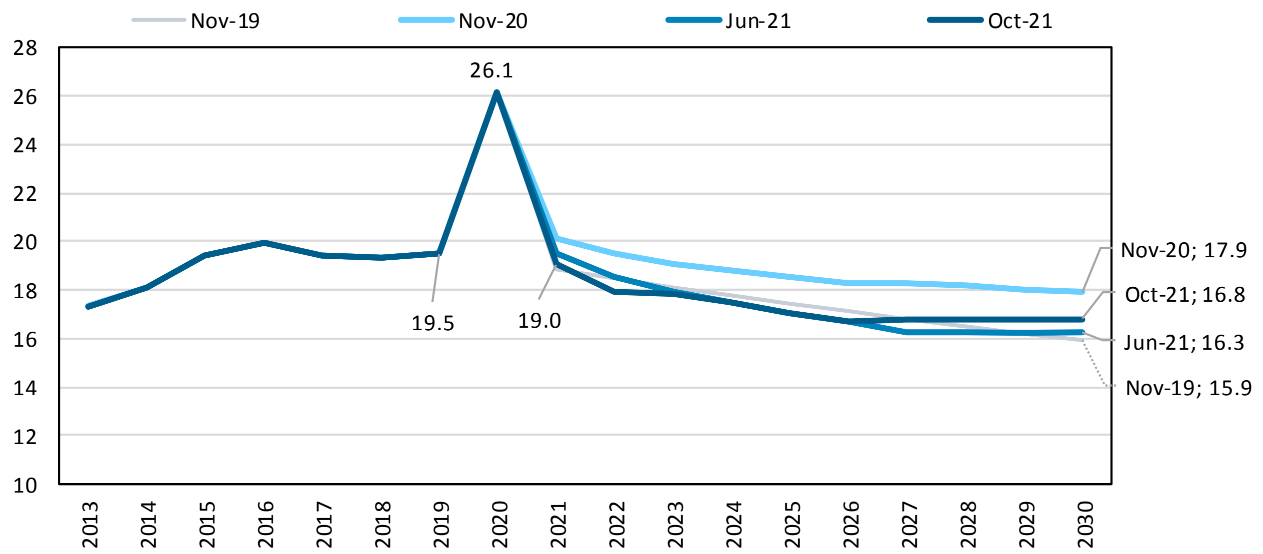
TABLE 12. CENTRAL GOVERNMENT´S PRIMARY EXPENDITURE IN 2022: IFI X PLOA (R$ BILLION)

Breakdown	IFI Oct/21 (A)		IFI Oct/21 (Auxílio BR as in PLOA) (B)		PLOA 2022 (C)		Difference PLOA/IFI (C-A)	
	R$ billion	% GDP	R$ billion	% GDP	R$ billion	% GDP	R$ billion	% GDP (p.p.)
TOTAL EXPENDITURE	**1,664.7**	**17.9**	**1,664.7**	**17.9**	**1,646.5**	**17.5**	**-18.2**	**-0.4**
Social security benefits	761.6	8.2	761.6	8.2	765.6	8.1	4.0	0.0
Personnel expenses and social contribution	345.8	3.7	345.8	3.7	342.8	3.6	-3.0	-0.1
BPC	74.0	0.8	74.0	0.8	73.5	0.8	-0.5	0.0
Salary allowance and unemployment insurance	61.4	0.7	61.4	0.7	63.5	0.7	2.0	0.0
Auxílio Brasil/Bolsa Família	46.0	0.5	34.7	0.4	34.7	0.4	-11.4	-0.1
Other Mandatory Spending	259.3	2.8	259.3	2.8	251.7	2.7	-7.6	-0.1
Discretionary	116.5	1.3	127.9	1.4	114.8	1.2	-1.7	0.0
Impositive Amendments	16.2	0.2	16.2	0.2	16.2	0.2	0.0	0.0
Other Discretionary of the Executive Branch	100.3	1.1	111.7	1.2	98.6	1.0	-1.7	0.0
Memo:								
Court rulings and court-ordered debts	89.1	1.0	89.1	1.0	89.1	0.9	0.0	0.0
Social security benefits	29.8	0.3	29.8	0.3	29.8	0.3	0.0	0.0
Personnel and social expenses	13.7	0.1	13.7	0.1	13.7	0.1	0.0	0.0
BPC	1.6	0.0	1.6	0.0	1.6	0.0	0.0	0.0
Salary allowance and unemployment insurance	0.2	0.0	0.2	0.0	0.2	0.0	0.0	0.0
Court rulings and court-ordered debts (Current e Capital)	43.7	0.5	43.7	0.5	43.7	0.5	0.0	0.0
Expenditure subject to the spending ceiling	1,610.0	17.3	1,610.0	17.3	1,610.0	17.1	0.0	-0.2
Spending ceiling	1,610.0	17.3	1,610.0	17.3	1,610.0	17.1	0.0	-0.2
Slack (+) / Excess (-)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Sources: Annual Budget Bill (PLOA) for 2022, Table 10-A; and IFI. Prepared by: IFI.

In the baseline scenario, primary spending should decline to 16.8% of GDP by 2030. The medium-term outlook, especially as a percentage of GDP, is similar to the previous scenarios. The fall in primary spending over the next few years reflects compliance with the Constitution's spending ceiling. It is an increasingly fragile premise, given the recent pressure to change the rule, even indirectly, as in the case of PEC nº 23/2021 (court-ordered debts PEC).

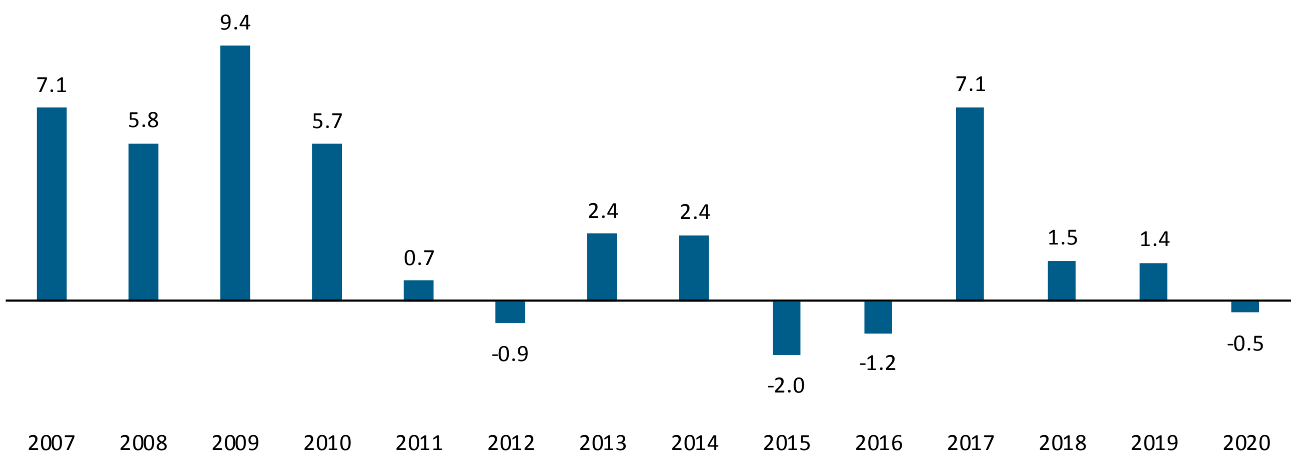
FIGURE 16. PRIMARY EXPENDITURE - BASELINE (% OF PIB)



Source: National Tresuary and IFI. Prepared by: IFI.

Under the current ceiling rule, the drop in expenditure projections would reflect two items: personnel and discretionary. In the case of personnel expenses, the baseline scenario assumption is that they will grow only by inflation until 2026 and then increase to 3% per year in real terms. At the end of the period, personnel expenditures would go from 4.2% in 2019 to 3.2% of GDP in 2030. The adjustment would be relevant, especially if we consider that the growth of personnel expenditures has decelerated since the beginning of the last decade (Figure 17). The more moderate growth occurs in a context of few admissions and no wage adjustments after 2019, except for military personnel. The trajectory expected in the baseline scenario would also depend on advances on the efficiency side that could be addressed in the context of administrative reform. In the case of discretionary spending, the fall is basically due to adjustments resulting from the need to comply with fiscal rules.

FIGURE 17. GROWTH OF PERSONNEL EXPENDITURES



Source: National Treasury and IFI. Prepared by: IFI.

2.2.2 Spending ceiling

Uncertainties about the spending ceiling are no longer just about compliance: the question today is whether the rule will be modified. When monitoring the adherence of fiscal indicators to the constitutional limit for primary expenditures, the IFI measures the risk of non-compliance based on the amount earmarked for discretionary spending. Since discretionary spending is the principal adjustment variable in the short term, the IFI monitors the compatibility of discretionary spending with compliance with fiscal rules and, at the same time, the possibility of maintaining public services.

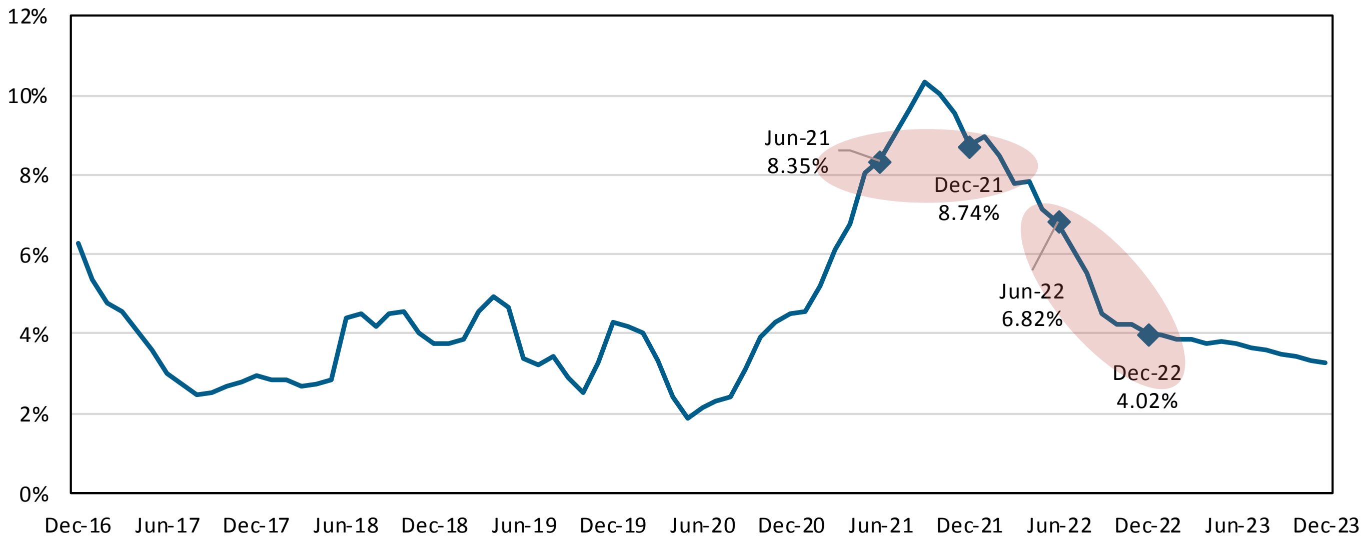
Although it is difficult to measure, the IFI calculates the minimum level of discretionary spending to avoid a shutdown. However, uncertainty today is not restricted to the possibility of complying with current rules. The legal framework itself is uncertain. Regarding the spending ceiling, the tension about the adequacy or not of the rule has always been present.

For 2022, this tension coexists with the expansion of expenses derived from court rulings and court-ordered debts, the likely expansion of expenses with the creation of the Auxílio Brasil, and the unwillingness to make compensatory cuts. Above all, it coexists with the risk associated with the approval of the Constitutional Amendment Bill (PEC) nº 23, of 2021, whose most recent version indicates the possibility of opening a relevant fiscal space in the spending ceiling as of 2022.

It is in this context that the new scenarios for the spending ceilings are analyzed.

Inflation behavior next year may help to comply with the ceiling in 2023. In the baseline scenario, inflation remains at a high level until the beginning of 2022 but then gives way, ending the year at 4% (Figure 18). In June 2022, the IPCA accumulated in 12 months, the one that adjusts the spending ceiling, would be 6.8%. Just as was predicted for 2022, a few months ago, it is probable that in 2023 the mismatch between the June and December inflation indices will make it easier to comply with the spending ceiling. It is worth remembering: while the ceiling is readjusted by mid-year inflation, spending is more sensitive to inflation at the end of the year. This is mainly due to social security and welfare expenses, or expenses related to the labor market, such as unemployment insurance and salary allowance. In general, these expenses are adjusted by the INPC of December. All other things being equal, a higher adjustment of the limit than the expenses subject to it creates fiscal space for an eventual increase in expenses during the year.

FIGURE 18. IPCA ACCUMULATED OVER 12 MONTHS



Source: IFI.

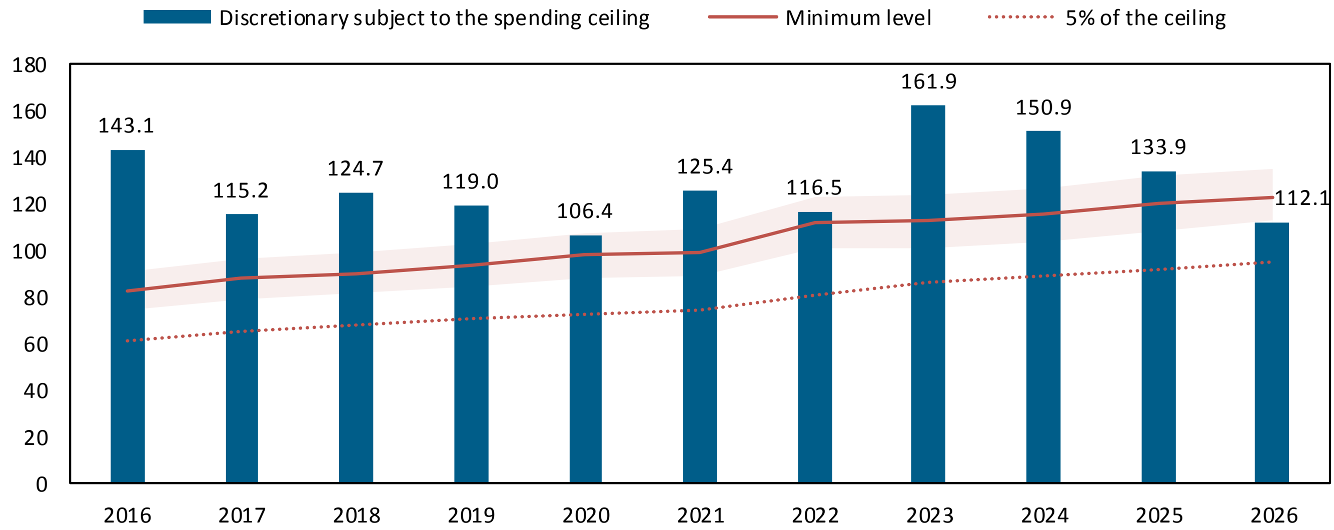
The mismatch between the inflation rates of June and December 2022 would allow a significant increase in discretionary spending in 2023 (Figure 19). In general, in our scenarios, when there is the prospect of slack in the spending ceiling in a given year, it is converted into a higher projection of discretionary spending. In practice, the slack in the ceiling may be used in any other primary expenditure or not at all. For elaborating the scenarios, we opted for an automatic increase in the projections for discretionary spending because of the growing pressure to recompose this expense. As of 2024, it would return to its historical downward trend until the moment in which the level becomes unsustainable, in the view of the IFI, based on the calculation of the minimum value for the public sector operation.

In the baseline scenario, the risk of not meeting the ceiling would become high in 2026. In the June scenario, this would only occur in 2027. It is difficult to predict the behavior of discretionary spending from the moment it reaches the minimum level. Given this difficulty, in our scenarios, from this point on, we allow discretionary spending to grow by inflation, without falling to even lower levels, nor assuming any more vigorous recovery.

When the estimate of discretionary spending is 90%-110% of the minimum threshold for these expenditures, the risk of non-compliance is classified as moderate, below 90%, high, above 110%, low. Other information that allows us to evaluate the general picture of the spending cap in a given year complements this objective parameter's analysis.

Figure 19 shows that, in 2026, discretionary spending would fall below 90% of the minimum level and, with this, the risk of non-compliance with the ceiling would become high. The shaded red band represents the interval from 90% to 110%. With Constitutional Amendment 109, of 2021, for the compulsory adjustment measures to be triggered (the ceiling triggers), the mandatory expenditure must reach the 95% level of the total primary expenditure subject to the ceiling. This would not occur in any of the years up to 2026, which makes the rule innocuous. In the imminence of non-compliance with the spending cap, there would be no alternative but to change it in the National Congress. In a way, this is what we see happening for 2022 in the scope of the discussion of PEC nº 23.

FIGURE 19. DISCRETIONARY SPENDING, MINIMUM LEVEL AND RANGE 90%-110% - BASELINE (R$ BILLION)



Source: Treasury (2014 to 2020) and IFI (following years).

2.2.3 Primary balance

In the baseline scenario, the IFI projects a primary deficit of R$ 158.3 billion, or 1.8% of GDP, in 2021 (Table 13). The deficit is much smaller than the R$ 743.1 billion of 2020, reflecting the decrease of R$ 331.9 billion in mandatory expenditures, related to the reduction in expenditures with COVID-19 and the recovery in tax collection. The government's current projection for the primary deficit is slightly better, R$ 148.6 billion.

TABLE 13. CENTRAL GOVERNMENT´S PRIMARY BALANCE - BASELINE SCENARIO (R$ BILLION)

Breakdown	2020		2021 (IFI forecast)		Difference	
	R$ bi	% GDP	R$ bi	% GDP	R$ bi	% GDP
Total revenue	1,467.8	19.7	1,823.6	21.2	355.9	1.5
Transfers	263.8	3.5	345.4	4.0	81.6	0.5
Net revenue	1,203.9	16.2	1,478.2	17.2	274.3	1.0
Primary expenditure	1,947.0	26.1	1,636.5	19.0	-310.5	-7.1
Mandatory	1,838.8	24.7	1,506.9	17.5	-331.9	-7.2
Discretionary (Executive)	108.2	1.5	129.6	1.5	21.4	0.1
Primary balance	-743.1	-10.0	-158.3	-1.8	584.8	8.1
Expenses not included in the target	0.0	0.0	108.8	1.3	108.8	1.3
Primary balance to meet the target	-743.1	-10.0	-49.5	-0.6	693.6	9.4

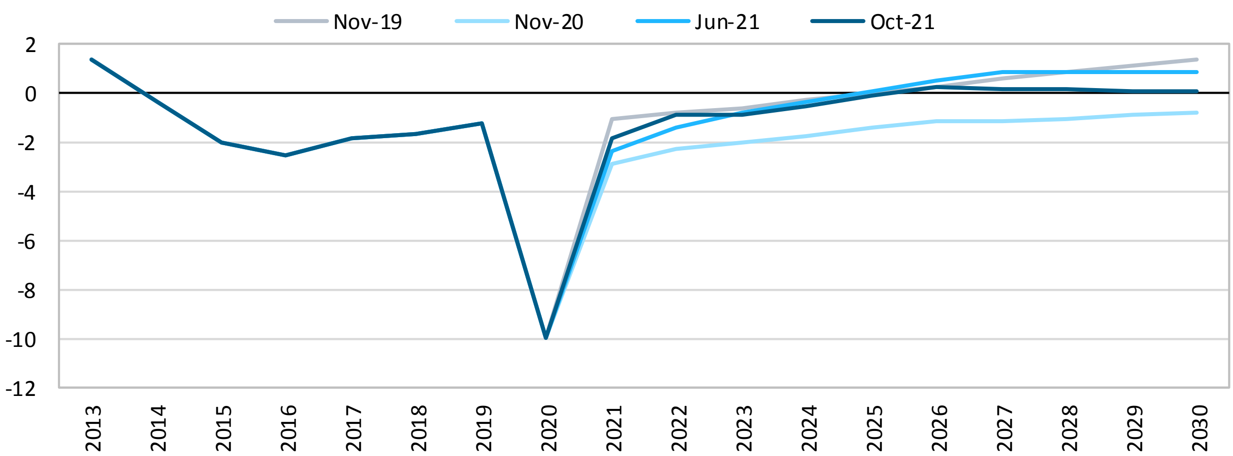
Source: National Treasury (2020) and IFI (2021). Prepared by: IFI.

The primary deficit to meet the target should be R$ 49.5 billion (Table 13). Law nº 14.143, published in April of this year, changed the LDO 2021 to exclude from the primary surplus target the extraordinary credits for actions and public health services to confront the pandemic, Pronampe and the Emergency Benefit for Income and Employment Preservation. Previously, EC 109 had already excluded the expenses related to the new emergency aid for the vulnerable, up to the limit of R$ 44.0 billion. Expenses not included in the 2021 target should total R$ 108.8 billion. The

R$ 49.5 billion deficit is far from the deficit target for this year, R$ 247.2 billion. It is interesting to note that the government's situation to meet this year's target would be comfortable even without the exceptions in the legislation.

In the baseline scenario, the primary balance would be back in surplus in 2026 (Figure 20). The current projections up to 2030 trace a similar trajectory to that of June. Some distinctions, however, are relevant. In the June scenario, the evolution of the primary balance was gradual and reached the positive ground as early as 2025. The new scenario is better for 2021 and 2022 but worse in 2023. For 2022, the growth in the estimates for tax collection and nominal GDP explains the improvement. As for 2023, higher inflation in June 2022 raises the spending ceiling for the following year and, consequently, the forecasted expenses, helping to explain the slight worsening of the primary deficit. In the new scenario, the primary balance would only become positive again in 2026.

FIGURE 20. PRIMARY BALANCE- BASELINE (% OF PIB)



Source: Treasury (2014 to 2020) and IFI (following years).

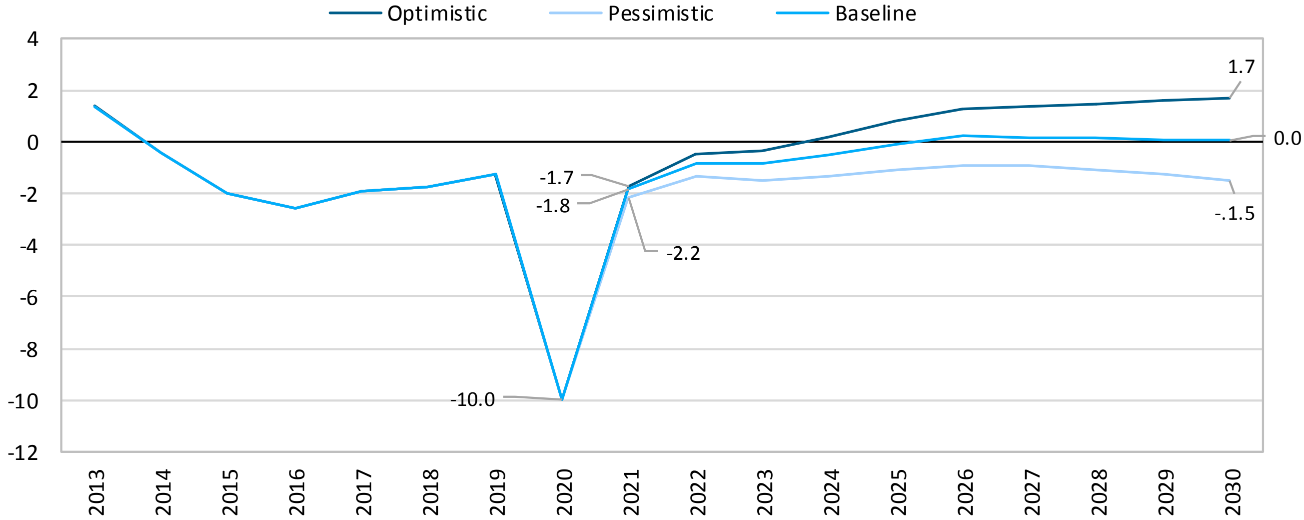
The optimistic and pessimistic scenarios consider the downside and upside risks affecting the projected trajectory of the main macroeconomic variables. At the end of the report, tables 18, 19, and 20 detail the IFI's projections for the central government's primary balance in the baseline scenario and the two alternative scenarios.

In the optimistic scenario, the primary deficit projection goes to 1.7% of GDP in 2021, against 1.8% in the baseline scenario (Figure 21). As for the period from 2022 to 2030, projected net revenues should average 17.1% of GDP, above the 16.9% of GDP projected in the current baseline scenario for the same period. On the other hand, expenditures present 16.3% of GDP, below the baseline scenario average of 17.1%. In the optimistic scenario, the primary deficit projection varies from 1.7% of GDP in 2021, peaking at 10.0% in 2020 to 0.8% in 2030.

The estimated primary deficit in the pessimistic scenario goes to R$ 188.2 billion or 2.2% of GDP in 2021. From 2022 to 2030, net revenues are estimated at 16.3% of GDP, on average, about 0.6 percentage points lower than those estimated in the baseline scenario. On the expenditure side, the annual average projected for the period is 17.6% of GDP, higher than the average in the baseline scenario by 0.5 p.p. of GDP. Unlike the other two scenarios, in the pessimistic one, the primary result does not become positive, and the deficit grows again at the end of the forecasting period.

Figure 21 compares the central government primary result curves in the three current scenarios: baseline, optimistic and pessimistic, as a percentage of the GDP.

FIGURE 21. PRIMARY BALANCE - IFI SCENARIOS (% OF GDP)



Source: Treasury (2014 to 2020) and IFI (following years).

3. GROSS DEBT SCENARIO

This section presents the updated estimates for the General Government Gross Debt (DBGG in the original acronym), the leading indicator of fiscal solvency. One of the four legal attributions of the IFI, according to Federal Senate Resolution Nº 42 of 2016, is to "project the evolution of fiscal variables that are determinant for the long-term balance of the public sector." Given the uncertainties linked to macroeconomic scenarios, we always outline three scenarios - baseline, optimistic, and pessimistic.

The debt should end in 2021 below the level observed in 2020, a period marked by actions to combat COVID-19 and its economic and social effects. Extraordinary expenses in 2021 should represent about ¼ of the volume observed last year. In addition, high inflation has affected nominal GDP more intensely since the beginning of this year. These two factors have collaborated to the reduction of the DBGG/GDP in recent months.

On the other hand, the persistence of inflation has combined with a series of new risks to increase the premium demanded by the market when purchasing public bonds. Simultaneously, the Central Bank has been increasing the target for the Selic rate. The result is the growth of interest expenses and the probable resumption of the upward trajectory of the debt/GDP ratio until December 2021, albeit from a lower starting point (lower than that of 2020, but higher than that of 2019).

It is worth saying that this less benign scenario was mapped out by the IFI several months ago. In the two topics of this section, we will present the recent evolution of debt indicators and the updated IFI projections based on the new macro-fiscal scenarios.

3.1 The recent evolution of interest and debt

The debt-to-GDP analysis is core to fiscal risk assessment. The evolution of Debt-to-GDP depends eminently on economic growth, inflation, interest rates, and the primary result. The debt evaluation is always undertaken concerning the state's capacity to generate income and wealth (GDP). The logic is straightforward: if the volume of debt grows faster than the GDP, the government's probability of not honoring its future commitments virtually increases. Economic agents price the risk, reflected in the interest rates demanded in auctions of public bonds.

Evaluations of the risk of insolvency of the state or the sustainability of the public debt may consider either the net indicators of public sector assets, such as international reserves and gross indicators[24]. The difficulty of using net debt in this type of evaluation is determining the degree of liquidity of each asset. For example, Treasury credits to BNDES have a liquidity level different from international reserves or hybrid capital and debt instruments with official financial institutions. The IFI analyzes the leading indicators monthly and draws scenarios for the DBGG.

When inflation predominates in the GDP dynamics, fiscal gains are temporary. The denominator of the gross debt/GDP ratio varies according to real economic growth and inflation. When inflation rises, monetary policy tends to be more contractionary; interest rates rise to contain inflation. Higher interest rates raise the average cost of issuing Treasury bonds, making debt more expensive (effect in the numerator). When nominal GDP growth occurs with inflation under control, ceteris paribus, there is no increase in interest rates; that is, the higher nominal GDP contributes to a perennial fall in debt/GDP.

In 2021, inflation has contributed to the fall of the Debt-to-GDP. Table 14 shows the nominal growth of gross debt and GDP between January and August for the past five years. Between January and August 2020, while the debt increased by R$ 839.3 billion, the nominal GDP fell by R$ 83.4 billion. Between January and August 2021, the debt increased by R$ 179.6 billion, and the nominal GDP grew by R$ 800 billion.

High inflation also helps to contain the public deficit in the short term. To clarify, the increase in the nominal GDP positively impacts tax collection and, therefore, the primary balance, contributing to a modest advance in the numerator of the Debt-to-GDP ratio. In 2021, the delay in renewing the Emergency Aid (a social transfer created in the scope of the pandemic) and the non-renewal of other stimuli also held back the primary deficit through expenditure restraint. Additionally, the dynamics of mandatory spending affected the primary deficit.

TABLE 14. DBGG AND GDP AT CURRENT PRICES (R$ BILLION)

	DBGG	Difference	GDP*	Difference
Jan/16	3,992.8	280.0	6,003.2	159.3
Aug/16	4,272.8		6,162.5	
Jan/17	4,399.0	369.8	6,300.9	177.6
Aug/17	4,768.9		6,478.5	
Jan/18	4,904.3	319.7	6,623.9	246.2
Aug/18	5,224.0		6,870.1	
Jan/19	5,302.7	315.0	7,032.8	229.8
Aug/19	5,617.7		7,262.5	
Jan/20	5,550.5	839.3	7,433.8	-83.4
Aug/20	6,389.8		7,350.4	
Jan/21	6,670.3	179.6	7,487.7	800.0
Aug/21	6,849.9		8,287.7	

*Source: Central Bank. Prepared by: IFI. / * Central Banks's 12-month accumulated monthly GDP series.*

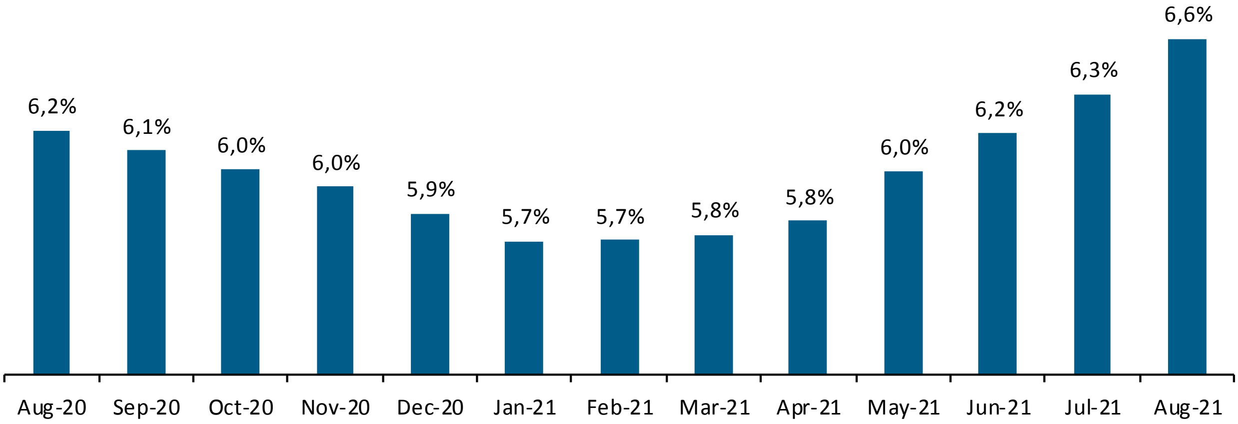
The increase in interest rates offsets eventual short-term gains derived from high inflation. The same phenomenon is not expected - nominal GDP growing strongly with lower interest rates - in the subsequent periods because the Central Bank has been raising the Selic target to contain inflation. The interest rates for different terms (forward curve) reflect the risk premium. The IFI's projections indicate that the nominal GDP will end in 2021 at R$ 8,600 billion, that is, R$ 312.4 billion higher than the accumulated GDP in the 12 months to August. However, the Selic rate, which started in 2021 at 2%, should end the year at 8.25%. In other words, the rise in interest rates will offset the fiscal gain derived from the rise in nominal GDP.

[24] For an approach on the different debt indicators, see Special Study nº 7, available at: https://www2.senado.leg.br/bdsf/bitstream/handle/id/547744/EE_07_Divida_Bruta.pdf

The implicit rate of gross debt may be between 7% and 7.5% by December. One way to evaluate the average cost of the DBGG is to analyze the implicit interest rate calculated by the Central Bank[25]. The implicit rate - interest payments and debt stock ratio - has been rising since March, as shown in Figure 22, from 5.7% per year in February to 6.6% in August. The Selic, which stood at 2% in February, ended August at 5.25% and rose to 6.25% in the following month.

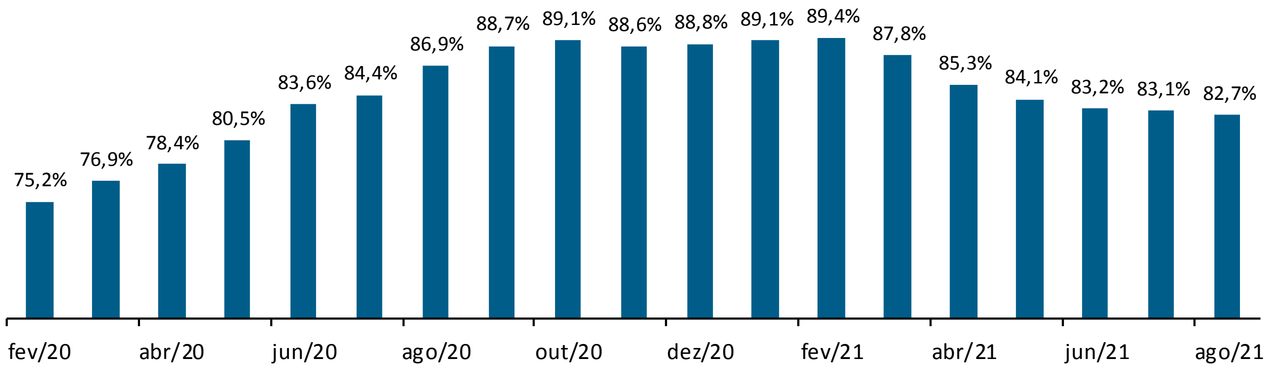
The rise in the Selic expected by the end of the year should boost the implicit rate, interrupting the downward trend of the Debt-to-GDP observed from March to August 2021 as a percentage of GDP (Figure 23). If the Selic reaches 8.25%, the implicit rate of the DBGG may end the year between 7% and 7.5% accumulated in 12 months.

FIGURE 22. DBGG IMPLICITE INTEREST RATE ACCUMULATED OVER 12 MONTHS



Source: Central Bank. Prepared by: IFI.

FIGURE 23. DBGG % OF PIB



Source: Central Bank. Prepared by: IFI.

Gross debt remains above the pre-pandemic level. In other words, the DBGG closed August 2021 at 82.7% of GDP, that is, 6.7 percentage points of GDP lower than the level observed in February of the current year. However, it remains

[25] The Central Bank publishes the implicit rate series in the special tables section of its website: https://www.bcb.gov.br/estatisticas/tabelasespeciais

7.5 p.p. of GDP above the level of February 2020 (75.2% of GDP), the month immediately before the start of the pandemic period. In topic 3.2, we will discuss the projections for gross debt in three scenarios.

The increase in interest expense confirms the IFI´s prognosis several months ago. Another sign of a reversal in the temporary downward trend of the debt-to-GDP ratio since March 2021 is the evolution of interest expenditures. In August, net interest owed by the public sector totaled R$ 335.7 billion over 12 months, R$ 20 billion higher than in January, using the same metric.

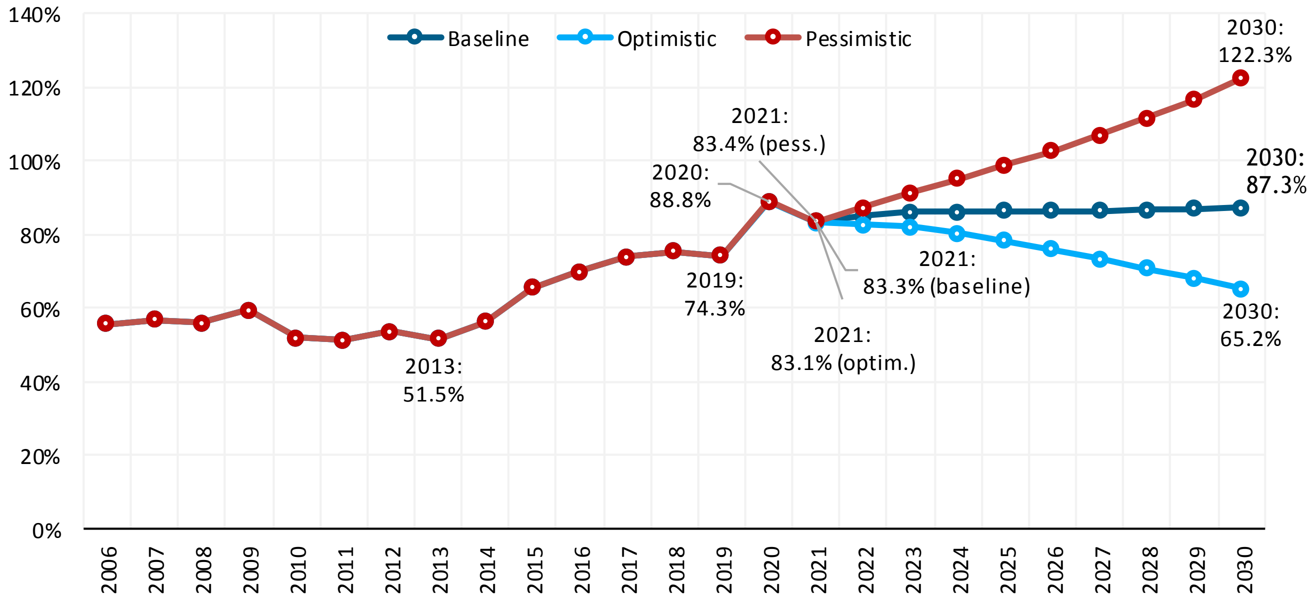
The share of Selic-indexed public debt automatically reflects the rise in the interest rate. The same occurs with the so-called Central Bank repo operations, whose remuneration tends to be very close to the Selic. These two components of the debt totaled R$ 3 trillion in August, the equivalent of 44% of the DBGG (R$ 6.85 trillion). The increase in interest expenditures will persist due to fiscal risk and the need to revert inflationary pressures.

3.2 Forecasts

Gross debt is expected to be 83.3% of GDP in the baseline scenario in 2021. This topic presents the projections for the DBGG in the baseline, optimistic and pessimistic scenarios. In the baseline scenario, the debt-to-GDP ratio should end the year at 83.3%, 0.6 p.p., above the level observed in August (82.7%). In June, when the IFI last revised its scenarios, the estimate for 2021 was 85.6%. If confirmed, the projection will represent a 5.5 p.p. reduction from the December 2020 level (88.8%). Compared to 2019 (74.3%), the level will be 9 p.p. higher.

The DBGG could reach 122.3% of GDP by 2030 in the pessimistic scenario. In the optimistic and pessimistic scenarios, respectively, the projections for 2021 are 83.1% and 83.4%. The baseline scenario contemplates the growth of the DBGG to the level of 87.3% in 2030. In the pessimistic scenario, the debt could reach 122.3%, and in the optimistic one, fall to 65.2% by the end of the forecast horizon. Figure 24 illustrates the new trajectories for the three scenarios.

FIGURE 24. DBGG FORECASTS (% OF GDP)



Source: IFI.

Tables 15 and 16 presents the main assumptions for the debt trajectories and the complete projections in the baseline, optimistic and pessimistic scenarios.

TABLE 15. MAIN MACRO-FISCAL ASSUMPTIONS FOR THE DEBT SCENARIOS - AVERAGE 2020 TO 2030

	Baseline					
	Nov/19	Nov/20	Feb/21	May/21	Jun/21	Oct/21
Primary balance (R$ billion)	33.7	-197.5	-154.6	-129.0	-49.8	-70.4
GDP at current prices (R$ billion)	10,626	9,988	10,282	10,533	10,933	11,275
GDP at constant prices (%)	2.3%	1.7%	1.8%	1.8%	1.9%	1.8%
Real interest rate (%)	3.0%	2.0%	2.3%	2.4%	2.4%	2.6%

	Optimistic					
	Nov/19	Nov/20	Feb/21	May/21	Jun/21	Oct/21
Primary balance (R$ billion)	176.1	-42.5	42.2	17.8	71.5	45.5
GDP at current prices (R$ billion)	11,141	10,594	10,746	11,030	11,521	11,712
GDP at constant prices (%)	3.3%	2.8%	2.8%	2.8%	3.0%	2.8%
Real interest rate (%)	2.2%	1.7%	1.9%	1.9%	1.9%	2.0%

	Pessimistic					
	Nov/19	Nov/20	Feb/21	May/21	Jun/21	Oct/21
Primary balance (R$ billion)	17	-340.3	-337.2	-299.0	-156.7	-184.5
GDP at current prices (R$ billion)	10,861	9,944	10,181	10,550	10,879	11,363
GDP at constant prices (%)	1.3%	0.8%	0.9%	0.9%	1.0%	1.0%
Real interest rate (%)	4.6%	3.9%	3.5%	3.6%	3.6%	3.9%

Source: IFI.

TABLE 16. PROJECTIONS FOR DEBT-TO-GDP RATIO UNTIL 2030

	Baseline		Optimistic		Pessimistic	
	Jun/21	Oct/21	Jun/21	Oct/21	Jun/21	Oct/21
2017	73.72%	73.72%	73.72%	73.72%	73.72%	73.72%
2018	75.27%	75.27%	75.27%	75.27%	75.27%	75.27%
2019	74.26%	74.26%	74.26%	74.26%	74.26%	74.26%
2020	88.83%	88.83%	88.83%	88.83%	88.83%	88.83%
2021	85.64%	83.26%	83.93%	83.06%	88.11%	83.44%
2022	86.02%	84.76%	82.67%	82.65%	89.51%	87.15%
2023	86.67%	85.94%	81.71%	82.02%	91.77%	91.08%
2024	87.00%	86.12%	80.14%	80.24%	93.94%	94.84%
2025	87.13%	86.20%	78.17%	78.10%	95.85%	98.66%
2026	87.06%	86.21%	75.77%	75.71%	97.93%	102.56%
2027	86.60%	86.31%	73.20%	73.24%	100.18%	106.72%
2028	86.20%	86.55%	70.44%	70.68%	102.56%	111.40%
2029	85.81%	86.85%	67.47%	67.99%	105.02%	116.54%
2030	85.45%	87.26%	64.33%	65.25%	107.63%	122.30%

Source: IFI.

Interest and GDP impact projections for 2021. It is essential to highlight the conditioning factors for the changes in debt-to-GDP ratio projection in 2021 in the baseline scenario. The Selic rate was projected at 5.50% in June and is now at 8.25% per year. On the other hand, the nominal GDP expected for the year jumped from R$ 8,386 billion to R$ 8,600 billion between the June versions and the current one.

The consolidated public sector's primary deficit - including the central government's primary balance explained in the previous section - was estimated at R$ 181 billion and, now, at R$ 75.3 billion (or 0.9% of GDP) for 2021. The more robust result of the regional governments and the benign projections for federal tax collection explain the lower deficit expected for the year.

A higher nominal GDP reduces by 2 p.p. the debt projection in the baseline scenario for 2021. The combination of these factors resulted in the change of the DBGG projection for 2021. The difference from 85.6% to 83.3% of the GDP is explained by: less 1.4 p.p. referring to the better primary deficit; less 2 p.p. due to the higher nominal GDP and more 0.7 p.p. of GDP derived from the higher Selic. Other factors combined (including the IPCA and the exchange rate[26]) account for another 0.4 p.p., totaling a difference of 2.3 p.p. of GDP.

Despite the improvement in the projection for the year, the debt-to-GDP ratio trend is upwards. As already mentioned, the indicator will increase by 0.6 p.p. of the GDP between August and December. This trend will continue throughout 2022, in the wake of higher nominal and real interest rates, when the debt should reach 84.8% of the GDP, reaching 86.2% in 2025, the year in which the consolidated public sector will show a modest surplus of 0.02% of the GDP.

The stabilization of the debt-to-GDP ratio is not an insuperable goal, but it will remain high by international standards. Baseline scenario points out that the DBGG should oscillate around 86.3% between 2025 and 2027 and grow to 87.3% in 2030. In the June version of the baseline scenario, the debt closed 2030 at 85.5%. This picture of projections indicates that the goal of stabilizing the debt-to-GDP ratio in the medium term is not far off. However, the level will still be high - about 30 p.p. higher than the average gross indebtedness of the emerging countries [27].

The primary surplus required to stabilize the debt in the medium term is 1% of the GDP. The debt sustainability equation helps to understand the size of the challenge to stabilize the indicator. Consider average real interest rates of 3.4% and real economic growth of 2.2% (both assumptions of the current IFI baseline scenario for 2025-2027). If the debt is in the range of 86% to 86.5% of GDP, the primary surplus required to stabilize it would be 1% of GDP. The average consolidated public sector primary surplus simulated by the IFI between 2025 and 2030 is 0.2% of GDP.

Suppose the risks posed to the fiscal picture in 2022 diminishes, and the next government takes care of the fiscal rules and seeks to control spending. In that case, the situation will be more favorable for stabilizing the DBGG (with controlled inflation). To be clear, this is quite different from the movement that has occurred in recent months, since the rise in inflation was a central conditioning factor (beneficial only in the short term), having as a consequence the rise in interest rates for different terms.

The issue of court-ordered debts and the spending ceiling are central to the dynamics of the debt. The fiscal situation continues to be very intricate. It requires a clear commitment to maintaining fiscal rules, considering the need to generate primary surpluses to guarantee medium-term stability of the debt/GDP. The rules governing court rulings and court-ordered debts have affected market expectations and raised the risk perception. Creating space in the spending ceiling in an election year seems to be a vector to determine if the baseline scenario will have a high probability of occurring or migrate to a prospective picture closer to the pessimistic one.

[26] Furthermore, we started to consider a Selic rate and inflation combination to correct the projection of the share of fixed-rate securities. Previously, we considered a fixed premise as an indexer. This observation applies to the three scenarios - baseline, optimistic and pessimistic. The change impacts more strongly the pessimistic scenario, as expected.

[27] See the October 2021 International Monetary Fund (IMF) Fiscal Monitor for a comparative assessment of the gross debt, available at: https://www.imf.org/en/Publications/FM/Issues/2021/10/13/fiscal-monitor-october-2021. IMF uses a different methodology than the one adopted by the Brazilian Central Bank. The comparison made in the RAF takes into account these discrepancies.

A pessimistic scenario indicates the persistence of the primary deficit until at least 2030. In the pessimistic scenario, the new macroeconomic parameters and the higher primary deficit, on average, in addition to the change in the correction of the fixed-rate securities, raised the projection curve, maintaining the stronger growth trend than that of the baseline scenario. In the June version of the pessimistic scenario, gross debt would reach 107.6% of GDP in 2030 and could now reach 122.3%.

This trajectory contemplates a scenario of higher interest rates, primary deficit and inflation, and slower economic growth. To some degree, it incorporates an expansionist fiscal policy and eventual changes in the fiscal rules. In the pessimistic scenario, the consolidated public sector would continue to present an average primary deficit of around 1.5% of GDP until 2030.

The optimistic scenario depends on increasing growth potential. The optimistic scenario, on the other hand, with higher average economic growth, lower interest rates, and a primary surplus returning in 2022 (consolidated public sector), would lead to a reduction in the debt-to-GDP ratio to 65.2% of the GDP by 2030. In the June version, the optimistic scenario indicated debt at 64.3% in the last year of the forecast horizon. The materialization of the optimistic scenario would depend on measures that increase the possibilities of economic growth, preserving the fiscal rules. It is a scenario seen by the IFI as less probable at the moment.

The surplus of the regional governments favors the result of the consolidated public sector. Finally, we present the consolidated public sector nominal deficit projections based on interest expenditures and the primary deficit in the three scenarios. Table 17 shows that the primary deficit in 2021 will be 0.9% of GDP, under the strong influence of a better picture than that expected by the IFI for the regional governments. In this context, the risk of approving a more flexible spending ceiling for the states may expand the space for increased spending next year, reducing the balance of about R$ 80 billion for 2021.

TABLE 17. NOMINAL RESULT OF THE CONSOLIDATED PUBLIC SECTOR (% OF GDP)

	Baseline			Optimistic			Pessimistic		
	Nominal result	Primary balance	Interest	Nominal result	Primary balance	Interest	Nominal result	Primary balance	Interest
2018	-6.96%	-1.55%	5.41%	-6.96%	-1.55%	5.41%	-6.96%	-1.55%	5.41%
2019	-5.79%	-0.84%	4.96%	-5.79%	-0.84%	4.96%	-5.79%	-0.84%	4.96%
2020	-13.63%	-9.44%	4.19%	-13.63%	-9.44%	4.19%	-13.63%	-9.44%	4.19%
2021	-6.27%	-0.88%	5.39%	-5.91%	-0.72%	5.19%	-6.89%	-1.25%	5.64%
2022	-6.73%	-0.40%	6.33%	-5.41%	0.01%	5.42%	-8.47%	-0.94%	7.53%
2023	-5.56%	-0.54%	5.02%	-3.81%	0.00%	3.81%	-8.62%	-1.22%	7.39%
2024	-4.37%	-0.30%	4.06%	-2.63%	0.42%	3.05%	-8.33%	-1.16%	7.17%
2025	-4.22%	0.02%	4.23%	-2.29%	0.94%	3.22%	-8.62%	-1.01%	7.61%
2026	-4.14%	0.29%	4.44%	-1.98%	1.35%	3.33%	-8.96%	-0.87%	8.08%
2027	-4.28%	0.25%	4.53%	-1.80%	1.44%	3.24%	-9.49%	-0.89%	8.60%
2028	-4.45%	0.18%	4.63%	-1.63%	1.53%	3.16%	-10.28%	-1.10%	9.18%
2029	-4.58%	0.15%	4.73%	-1.39%	1.66%	3.05%	-11.05%	-1.26%	9.80%
2030	-4.74%	0.09%	4.83%	-1.20%	1.75%	2.95%	-11.96%	-1.48%	10.47%
Average 2020-2030	**-5.72%**	**-0.96%**	**4.76%**	**-3.79%**	**-0.10%**	**3.69%**	**-9.66%**	**-1.87%**	**7.79%**

Source: IFI.

Fiscal tables

TABLE 18. IFI FORECASTS FOR THE CENTRAL GOVERNMENT PRIMARY BALANCE – BASELINE SCENARIO (% OF GDP)

Breakdown	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Gross Revenue	19.7	21.2	21.0	20.9	20.9	20.9	20.9	20.9	20.8	20.8	20.8
Transfers to States and Municipalities by Revenue Sharing	3.5	4.0	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
Net Revenue	16.2	17.2	17.0	17.0	17.0	16.9	16.9	16.9	16.9	16.9	16.9
Primary Expenditure	26.1	19.0	17.9	17.8	17.5	17.0	16.7	16.7	16.8	16.8	16.8
Mandatory Expenditure	24.7	17.5	16.6	16.2	16.0	15.8	15.7	15.8	15.8	15.9	15.9
Social security benefits	8.9	8.2	8.2	8.0	7.9	7.9	7.8	7.9	8.0	8.1	8.2
Personnel expenses and social contribution	4.3	3.9	3.7	3.6	3.5	3.4	3.3	3.3	3.2	3.2	3.2
Salary allowance and unemployment insurance	0.8	0.5	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8
Salary Allowance	0.3	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.4
Unemployment Insurance	0.5	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
BPC [Continuous Cash Benefit Program]	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Compensation to RGPS for Exemption of Payroll Taxes	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supplementation by the Federal Government to Fundeb	0.2	0.3	0.3	0.4	0.4	0.5	0.6	0.6	0.6	0.6	0.6
Legislative, Judiciary, Prosecutor's Office and Public Defender's Office	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Court Rulings and Court-Ordered Debts (current and capital expenditure)	0.3	0.2	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Subsidies and Grants	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Other Mandatory Spending	8.8	3.2	2.2	2.0	1.9	1.9	1.8	1.8	1.7	1.7	1.6
without Flow Control	7.0	1.6	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
with Flow Control	1.8	1.6	1.9	1.8	1.8	1.7	1.7	1.7	1.6	1.6	1.5
Of which Bolsa Família [Family Grant]	0.3	0.3	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4
Discretionary of the Executive Branch	1.5	1.5	1.3	1.7	1.5	1.2	1.0	1.0	0.9	0.9	0.9
Primary Balance	-10.0	-1.8	-0.9	-0.9	-0.5	-0.1	0.2	0.2	0.1	0.1	0.0
Note:											
Spending on COVID-19	7.0	1.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nominal GDP (BRL billion)	7,447.9	8,600.1	9,299.8	9,921.7	10,542.7	11,189.2	11,868.2	12,589.7	13,355.6	14,170.4	15,038.3

TABLE 19. IFI FORECASTS FOR THE CENTRAL GOVERNMENT PRIMARY BALANCE – OPTIMISTIC SCENARIO (% OF GDP)

Breakdown	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Gross Revenue	19.7	21.4	21.2	21.2	21.1	21.1	21.1	21.0	21.0	20.9	20.9
Transfers to States and Municipalities by Revenue Sharing	3.5	4.1	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
Net Revenue	16.2	17.3	17.3	17.2	17.2	17.2	17.1	17.1	17.1	17.0	17.0
Primary Expenditure	26.1	19.1	17.8	17.6	17.0	16.4	15.9	15.7	15.6	15.4	15.3
Mandatory Expenditure	24.7	17.6	16.5	15.9	15.5	15.2	14.9	14.8	14.7	14.6	14.5
Social security benefits	8.9	8.3	8.1	7.9	7.7	7.6	7.4	7.4	7.4	7.4	7.4
Personnel expenses and social contribution	4.3	3.9	3.7	3.6	3.4	3.3	3.2	3.1	3.1	3.1	3.0
Salary allowance and unemployment insurance	0.8	0.5	0.7	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5
Salary Allowance	0.3	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Unemployment Insurance	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3
BPC [Continuous Cash Benefit Program]	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.8	0.8	0.8
Compensation to RGPS for Exemption of Payroll Taxes	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supplementation by the Federal Government to Fundeb	0.2	0.3	0.3	0.4	0.4	0.4	0.6	0.6	0.6	0.6	0.6
Legislative, Judiciary, Prosecutor's Office and Public Defender's Office	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2
Court Rulings and Court-Ordered Debts (current and capital expenditure)	0.3	0.2	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Subsidies and Grants	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Other Mandatory Spending	8.8	3.3	2.2	1.9	1.9	1.8	1.8	1.7	1.6	1.5	1.5
without Flow Control	7.0	1.6	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
with Flow Control	1.8	1.6	1.9	1.8	1.8	1.7	1.6	1.6	1.5	1.4	1.4
Of which Bolsa Família [Family Grant]	0.3	0.3	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4
Discretionary of the Executive Branch	1.5	1.5	1.3	1.7	1.5	1.2	0.9	0.9	0.9	0.8	0.8
Primary Balance	-10.0	-1.7	-0.5	-0.4	0.2	0.8	1.3	1.4	1.5	1.6	1.7
Note:											
Spending on COVID-19	7.0	1.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nominal GDP (BRL billion)	7,447.9	8,581.1	9,360.5	10,016.9	10,714.7	11,477.5	12,303.4	13,196.8	14,165.1	15,215.4	16,348.2

TABLE 20. IFI FORECASTS FOR THE CENTRAL GOVERNMENT PRIMARY BALANCE – PESSIMISTIC SCENARIO (% OF GDP)

Breakdown	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Gross Revenue	19.7	20.7	20.4	20.4	20.3	20.3	20.2	20.2	20.1	20.1	20.1
Transfers to States and Municipalities by Revenue Sharing	3.5	4.0	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
Net Revenue	16.2	16.7	16.5	16.5	16.4	16.4	16.3	16.3	16.2	16.2	16.2
Primary Expenditure	26.1	18.9	17.9	18.0	17.8	17.5	17.2	17.2	17.4	17.5	17.7
Mandatory Expenditure	24.7	17.4	16.7	16.3	16.2	16.0	16.0	16.2	16.4	16.5	16.7
Social security benefits	8.9	8.2	8.2	8.2	8.1	8.1	8.1	8.3	8.5	8.7	8.9
Personnel expenses and social contribution	4.3	3.8	3.7	3.6	3.5	3.4	3.3	3.3	3.3	3.3	3.3
Salary allowance and unemployment insurance	0.8	0.5	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Salary Allowance	0.3	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Unemployment Insurance	0.5	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
BPC [Continuous Cash Benefit Program]	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Compensation to RGPS for Exemption of Payroll Taxes	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Supplementation by the Federal Government to Fundeb	0.2	0.3	0.3	0.4	0.4	0.5	0.6	0.6	0.6	0.6	0.6
Legislative, Judiciary, Prosecutor's Office and Public Defender's Office	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Court Rulings and Court-Ordered Debts (current and capital expenditure)	0.3	0.2	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Subsidies and Grants	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Other Mandatory Spending	8.8	3.2	2.2	2.0	2.0	1.9	1.9	1.8	1.8	1.8	1.8
without Flow Control	7.0	1.6	0.3	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1
with Flow Control	1.8	1.6	1.9	1.9	1.8	1.8	1.8	1.7	1.7	1.7	1.6
Of which Bolsa Família [Family Grant]	0.3	0.3	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4
Discretionary of the Executive Branch	1.5	1.5	1.2	1.7	1.6	1.4	1.2	1.0	1.0	1.0	0.9
Primary Balance	-10.0	-2.2	-1.4	-1.5	-1.3	-1.1	-0.9	-0.9	-1.1	-1.3	-1.5
Note:											
Spending on COVID-19	7.0	1.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nominal GDP (BRL billion)	7,447.9	8,653.2	9,297.3	9,941.5	10,575.7	11,244.3	11,956.3	12,713.0	13,517.2	14,372.1	15,275.1

IFI forecasts

								Forecasts			
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
GDP - real growth (% per year)	0.50	-3.55	-3.28	1.32	1.78	1.41	-4.06	4.91	1.72	2.15	2.18
Nominal GDP (BRL billion)	5779	5996	6269	6585	7004	7407	7448	8600	9300	9922	10543
IPCA – accum. (% in the year)	6.41	10.67	6.29	2.95	3.75	4.31	4.52	8.74	4.02	3.26	3.17
Exchange rate - end-of-period (BRL/USD)	2.66	3.90	3.26	3.31	3.87	4.03	5.20	5.35	5.75	5.57	5.28
Employment - growth (%)	1.48	0.05	-1.87	0.35	1.41	1.99	-7.86	3.00	1.51	1.45	1.54
Payroll - growth (%)	3.98	-1.13	-3.24	1.87	3.04	2.47	-3.63	-2.72	1.72	2.15	2.18
Selic rate - end-of-period (% per year)	11.75	14.25	13.75	7.00	6.50	4.50	2.00	8.25	8.50	6.50	6.50
Real Interest *ex-ante* (% per year)	5.93	8.32	6.41	2.82	2.61	0.79	-0.70	4.79	3.66	3.54	3.31
Public Sector Consolidated Primary Balance (% of GDP)	-0.56	-1.86	-2.48	-1.68	-1.55	-0.84	-9.44	-0.88	-0.40	-0.54	-0.30
of which Central Government	-0.41	-2.01	-2.57	-1.89	-1.72	-1.28	-10.06	-1.84	-0.86	-0.87	-0.52
Net Nominal Interest (% of GDP)	5.39	8.37	6.49	6.09	5.41	4.96	4.19	5.39	6.33	5.02	4.06
Nominal Balance (% of GDP)	-5.95	-10.22	-8.98	-7.77	-6.96	-5.79	-13.63	-6.27	-6.73	-5.56	-4.37
General Government Gross Debt (% of GDP)	56.3	65.5	69.8	73.7	75.3	74.3	88.8	83.3	84.8	85.9	86.1

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