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Report of

Federal Fiscal Risks

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Executive Summary

In its 4th edition, the Federal Fiscal Risk Report (RRFU) prepared by the National Treasury Secretariat (STN) continues its objective of offering society an instrument of fiscal transparency that synthetically demonstrates the situation of the Fiscal Risks to which the Federal Government is exposed. Fiscal risks are the possibility of events that may affect the public accounts, compromising the reach of the fiscal results established as goals and objectives. The report classifies fiscal risks into two groups: macroeconomic and specific. Macroeconomic fiscal risks are related to cyclical or structural changes in the economy, while specific risks are of diverse origins, related to government programs and the public sector's balance sheet (values of assets or liabilities).

-Macroeconomic Fiscal Risks:

Approximately 92% of primary revenue is subject to the volatility of real GDP, inflation, wage bill, exchange rate, interest or oil prices. The revenue administered by the Federal Revenue of Brazil (RFB), such as income tax and social security contribution, represents the largest portion subject to risk from the volatility of macroeconomic parameters. The variation in real GDP represents the greatest source of risk for revenues, followed by the variation in inflation and the wage bill. The 1 p.p. variation in real GDP impacts primary revenue by R$ 10,1 billion, while the 1 p.p. variation in inflation impacts R$ 9,3 billion. The 1 p.p. change in the nominal wage bill is reflected in a R$ 5,6 billion variation, mainly due to the change in the social security contribution collection.

On the primary expenditure side, the volatility is linked to the variations of the minimum wage and the INPC, impacting mainly the expenditures with social security and welfare benefits, the payment of Unemployment Insurance and the payment of the Salary Allowance. In the year 2021, approximately 55% of total primary expenditures presented an expansion due to the direct influence of inflation and the minimum wage.

The R$ 1 increase in the minimum wage implies a total increase of R$ 389,8 million in expenditures, with a net impact of R$ 271,6 million on the RGPS deficit (public social security system), R$ 60,8 million on welfare benefits and R$ 34,0 million on FAT benefits (unemployment insurance and salary allowance).

After a strong reversal of the effects of the pandemic on the debt level in 2021, in 2022 the GGDB returns to levels close to those observed in the pre-pandemic. This debt aggregate is highly sensitive to interest rates, GDP growth and the primary result. In an exercise of sensitivity of the debt to macroeconomic variables, **it was verified that an increase of 1** percentage point **in the Selic rate in the period from 2022 to 2025 causes an increase of 1,4** percentage point **in the Gross General Government Debt (GGDB) at the end of 2025. Reductions of 1** percentage point **in GDP growth and in the primary outcome alone leads to an increase of approximately 3,9** percentage points **and 4,2** percentage points**, respectively, in the GGDB at the end of 2025.** In a scenario where adverse shocks on interest rates, GDP growth and the primary outcome are combined, the increase in the GGDB can reach almost 10 percentage points in 2025**.**

In relation to the Expenditure Cap rule, the possibility of compliance with this rule is only verified under the hypothesis of mandatory expenditure control. Even if there is control over the expansion or creation of new expenditures, macroeconomic shocks could still lead to scenarios of unsustainable compression of discretionary expenditures.

The simulations of stresses in macroeconomic variables for the primary outcome of the Central Government considered, in all cases, the limitation of expenditures by the spending cap. The probability of reaching a positive primary result in 2023 is around 6% and a 54% probability of a positive primary result in 2024. Nevertheless, the corresponding debt trajectories resulting from the stochastic simulations indicate a high probability of increasing debt as a proportion of GDP by 2025 in relation to that forecasted for 2022, which signals the need for a more robust fiscal effort in the coming years. The least favorable scenarios would be reached, for example, in the absence of reforms that contribute to fiscal consolidation and the resumption of sustained economic growth.

-Specific Fiscal Risks:

Despite the limitations of analysis that the sum of all risks brings with it, mainly due to the different probabilities of occurrence, **the Federal Government's exposure to specific fiscal risks presented in this Report reached the amount of R$ 5 trillion, showing an increase of R$ 778 billion in relation to that registered at the end of 2021.** During the year 2022, the exposure related to assets reached R$ 1,4 trillion while the exposure associated with liabilities reached the level of R$ 3,6 trillion.

The value of the stock of **lawsuits against the Federal Government**, considering those of probable and possible risk, totaled R$ 2.895,5 billion in June 2022, representing an increase of 36% compared to the previous year, where 81,7%

(R$ 2.367,0 billion) refer to lawsuits of possible risk and 18,3% (R$ 528,5 billion) to lawsuits classified as having probable risk of loss. The annual expenditures arising from judicial losses have accompanied this upward movement: while in 2014 this expenditure was R$ 18,8 billion, for the year 2023, in nominal terms, it is estimated to reach R$ 66,4 billion, which corresponds to 3.5% of primary expenditures (estimate of amount paid and primary expenditure - PLOA 2023).

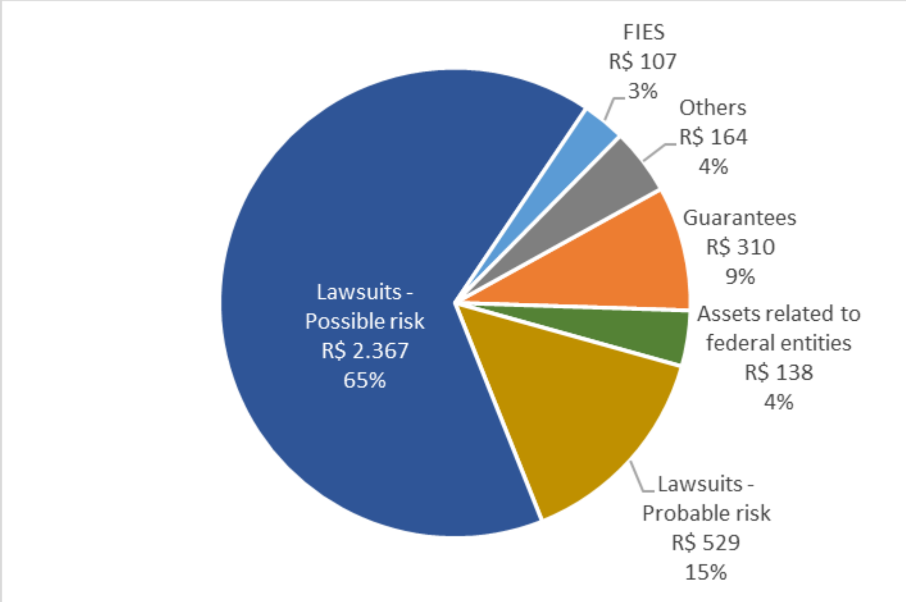
The amount of the stock of **Federal Government's contingent liabilities in the process of settlement within the STN**, also called debts in the process of accreditation (debts arising from the extinction/dissolution of federal administration entities, direct debts of the Federal Government and debts arising from the Salary Variations Compensation Fund - FCVS) estimated in the LOA, for the year 2022, is R$ 112,4 billion, about 94% of which is related to the FCVS.

From 2016 to August 2022, the honors of the Federal Government's guarantees to credit operations reached the amount of R$ 47,9 billion. The non-executed value of the Federal Government's counter-guarantees, due to judicial orders, which exceeded R$ 40 billion in 2021, was zeroed in 2022, due to contractual renegotiations. Eventual impossibilities to execute the counter-guarantees affect compliance with the Golden Rule, besides increasing the Federal Government's public debt. The growth of non-enforceable counter-guarantees characterizes the materialization of the fiscal risk involved in the Federal Government's guarantees, although renegotiations, including under the Fiscal Recovery Regime, have zeroed out the stock of guarantees to be recovered, in 2022, since the balance was renegotiated.

With the advent of the global Covid-19 pandemic and the consequent economic crisis, **the Guarantee Funds**, with the participation of the Federal Government, strengthened their role in supporting public policies aimed at the recovery of the economy. **The credit operations related to the actions of the National Program to Support Micro and Small Companies (Pronampe) and the Emergency Program for Access to Credit (Peac) are guaranteed by the FGO and by the FGI, respectively, in which about R$ 56 billion of public resources were invested between 2020 and 2021.** At the end of June 2022, the Federal Government had R$ 59,9 billion of participation in quotas in the Funds of this nature, an amount that represents more than 78% of the total Net Worth of the Guarantee Funds.

The amount indemnified by the Export Credit Insurance in the last three years was US$ 964 million, which corresponds to more than 70% of the FGE's history of indemnifications, while the collection of premiums has shown a significant decrease since 2016, with a slight increase since 2020. Since it is a primary expenditure, the materialization of the FGE's fiscal risk impacts the Federal Government's primary result and the spending cap.

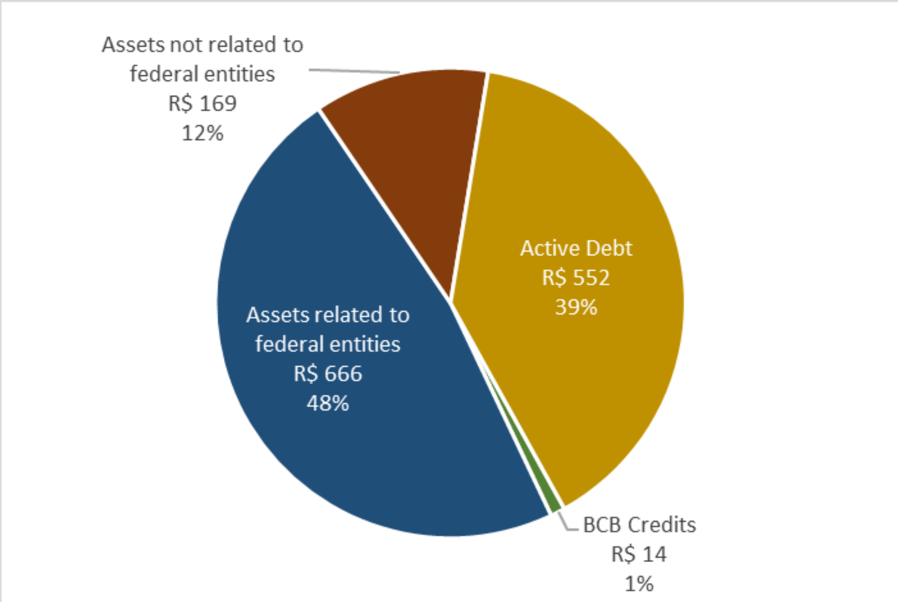
Chart 1 - Specific Liability-Related Fiscal Risk Factors
Data in: R$ billion
Source: AGU, STN, SIAFI



In relation to the **Student Financing Fund (Fies)**, in June 2022, the value of the exposure stock of operations already granted under the program reached R$ 107,5 billion. Of this amount, **R$ 68,0 billion corresponds to the full outstanding balance of contracts in arrears, which represents 63% of the total portfolio**. The amount of the adjustment for estimated losses is R$ 36,6 billion.

Of a total of R$ 2.770 billion in the Active Federal Debt, R$ 552 billion is expected to be recovered, with most of this amount impacting the primary outcome. This expectation is based on the history of compliance in the last fifteen years.

Chart 2 - Specific Asset-Related Fiscal Risk Factors
Data in: R$ billion
Source: AGU, STN, SIAFI



The federal government's financial holdings not related to subnational entities, under the management of the STN (originating from loans granted to financial institutions, rural credit operations, credit assignment operations, export credit operations, loans to non-financial entities, and the emergency employment support program) **totaled R$ 169,3 billion**.

In the context of the Federal Government's relationship with the subnational entities, the fiscal risks present themselves in various configurations. The liabilities with States and Municipalities reach R$ 916 billion, while the contingent liabilities resulting from EC 109/2021 injunctions, for the Federal Government to finance the payment of the balances of overdue court-ordered debts (precatórios), are estimated at R$ 138,4 billion, totaling R$ 1.054,4 billion.

The estimated impacts of legislative proposals that alter the inter-federative relationship, for a period of ten years, are approximately R$ 1.260,8 billion. Such proposals, despite not being classified as fiscal risk, according to the concept adopted by this Report, are important sources of uncertainty for the Federal Government.

As far as state-owned companies are concerned, the risk of frustrated revenues from dividends and interest on equity is considered remote. However, the possible or remote risk of the need for emergency funding is considered, mainly due to the concrete difficulties that some companies face.

The fiscal risks of the Federal Government's public service concessions are mitigated by the very structure of the contracts signed. The risk of revenue frustration of the concessions during the year is mitigated in the bimonthly evaluations of primary revenues and expenditures.

The estimated impact of the Brazilian demographic evolution on the selected health and education expenditures is R$ 8,6 billion in additional demand in 2031, at 2021 prices, and represents a reflection of the change in the age structure, with an increase in the number of elderly people and a reduction in the number of young people in the population.

Environmental fiscal risks from disasters and natural phenomena are usually associated with climate change or caused and originated by human activity, as in the case of Covid-19. Between the years 2012 and 2022 (June), between 0.01% and 0.06% of GDP, per year, were spent on actions aimed at **risk and disaster management**, including the planning and control of associated risks (Program 2218 of the LOA). On the other hand, the actions to mitigate **climate change** show a tendency to gradually increase as of 2020 (Program 1058 in the LOA), reaching about R$ 455 million in October 2022. The expenditures to **combat the effects of the COVID-19 pandemic**, in 2022, corresponded to a total of 0,2% of the GDP, while in 2020 and 2021 they were equivalent to 7,0% and 1,4%, respectively. A total of R$ 19,4 billion was paid out in 2022 through September.

Introduction

The Federal Government Fiscal Risk Report, now in its fourth edition, is a publication of the National Treasury Secretariat (STN) that synthetically demonstrates the situation of fiscal risks to which the Federal Government is exposed. The information presented here contributes to the identification and analysis of events that can generate deviations in relation to the fiscal planning established by the government. To this end, the document analyzes different sources of risks that may affect public revenue and expenditure, as well as events that have an impact on public debt.

The STN's action on the Federal Government's fiscal risks is established by item XXXV of Article 49 of the Regimental Structure of the Ministry of Economy, approved by Decree nº 10.072, of October 18, 2019. In order to fulfill this regimental mission, the STN's General Coordination of Planning and Fiscal Risks (COPEF) acts to consolidate the identification and evaluation of risks that impact the short, medium and long-term fiscal projections.

This Risk Report complements the role played by the Fiscal Risk Annex (ARF) of the Budget Guidelines Law (LDO), encompassing the identification and quantification of the main fiscal risks, thus establishing a systematization of the monitoring and evaluation of these risks. The information presented herein updates the figures disclosed in the ARF, offers broader coverage in some analyses, provides Graphical and objective managerial assessments of the main fiscal risks, and discusses new perspectives for the following years.

The fourth edition of the Fiscal Risk Report is structured in three sections, in addition to this Introduction and the Executive Summary. Section 1 presents the conceptual aspects that guide the analysis of fiscal risks. Section 2 evaluates the risks of fluctuations in macroeconomic parameters and their impact on revenues, expenditures and public debt. Section 3 discusses specific risks, which consist of an extensive set of risks related to contingent assets and liabilities, risks arising from sub-national entities, state-owned companies, and environmental risks, among others.

1 Fiscal Risk Management

1.1 Definition

Fiscal risks are the possibility of occurrence of unforeseen events capable of affecting the public accounts, compromising the achievement of the fiscal results established as goals and objectives. For these events to be classified as fiscal risks, a necessary condition is that they cannot be controlled or avoided by the government. Thus, while unforeseen expenditures, arising, for example, from unfavorable court decisions to the government, are considered fiscal risks, expenditures arising from government decisions or policies, such as aid, are not considered fiscal risks, even if they lead to deviations from fiscal targets.

The Organization for Economic Cooperation and Development (OECD)[1] and multilateral organizations recommend that countries: (1) establish tools to identify fiscal risks; (2) spell out the means to manage them; and (3) consider them in discussions of fiscal policy stance. This recommendation supports the disclosure and management of fiscal risks as one of the pillars of a transparent and sound fiscal policy and emphasizes the need for clarity and accountability in a government's policy choices and financial trade-offs.

1.2 Categorization

The fiscal risks presented in this report are differentiated into two categories, macroeconomic risks and specific risks:

a) Macroeconomic risks: present the fiscal impacts when fluctuations occur in macroeconomic variables. When macroeconomic variables deviate from the government's projections, these movements are expected to produce impacts on government revenues and expenditures and on public debt. The analyses presented in this report identify the degree of sensitivity of these fiscal variables to changes in the main macroeconomic variables and quantify the financial impact resulting from these variations. The identification of these risks generates relevant information for planning budget execution, for compliance with fiscal rules, and for monitoring the sustainability of public finances.

[1] OECD Best Practices for Managing Fiscal Risks, 2020.

b) Specific risks: these are fiscal risks that do not arise from changes in macroeconomic variables. Specific risks cover a wide range of cases and are related to events that are beyond the government's control, but whose occurrence may impact public accounts. Contingent assets and liabilities fall into this category, such as, for example, lawsuits, guarantees, the Federal Government's Active Debt, and risks related to financial assets. Specific risks also include risks arising from decentralized entities, such as state-owned companies and subnational entities, as well as risks arising from public policies, such as public service concessions and student loans.

1.3 Prevention, Mitigation and Monitoring of Fiscal Risks

The fiscal risks addressed in this document are of various natures and are associated with different processes related to their identification, measurement and management. In the Brazilian context, most risks are subject to an institutional and normative framework that already establishes that their takes place within the scope of the performance of the attributions of specific bodies. In this environment, which brings together a large number of players who deal with different themes using different methodologies, the consolidation of information must be guided by the harmonization of concepts and standardization of fiscal impacts. In this sense, in the different analyses presented, we seek to distinguish, in each case, the primary impacts from the financial ones, the flow values from the stock values, the financial years, as well as to present an explanation of the criteria used to measure the risks and to build projections. In a complementary way, other documents published by the Federal Government monitor aspects related to the fiscal risks treated here, as shown in Table 1.

Table 1 - Federal government publications that monitor fiscal risks
Source: STN/SETO/ME

Publication	Related Risk	Responsible Institutions
Budget Guidelines Draft Law, Annex V, Fiscal Risks	Macroeconomic Fiscal Risks and Specific	STN/SETO/ME with information from other institutions
Fiscal Projections Report	Macroeconomic Risks	SUPEF/SUDIP/STN/SETO/ME
Macroeconomic Overview	Macroeconomic Risks	PES/ME
Annual Debt Report	Public Debt	SUDIP/STN/SETO/ME
Public Debt Projections Report	Public Debt	SUDIP/STN/SETO/ME
Fiscal Management Report	Guarantees, Public Debt	STN/SETO/ME
Report on Secured Credit Operations	Guarantees	SUDIP/STN/SETO/ME
Accountability of the President of the Republic	Contingent assets and liabilities and other specific risks	PR, CGU and ME
Finance Bulletin of the Subnational Entities	Subnational Entities	SURIC/STN/SETO/ME
General Government Fiscal Statistics	Subnational Entities	SUPEF/STN/SETO/ME
Bulletin of Federal State-Owned Enterprises	State Companies	SEST/ME
Bulletin of Federal Government Shareholdings	State Companies	SUGEF/STN/SETO/ME
Financial Stability Report	Financial Sector	BCB
Draft Budget Guidelines Law, Annex IV, items IV.5, IV.6 and IV.7: Actuarial Valuations of the Pension Fund Systems	Long-term analysis of pension systems	ME and MTP
Management Report to the Board of Directors Export Financing and Guarantee	Guarantee Fund for Exports - FGE	BNDES
Primary Revenue and Expenditure Assessment Report	Macroeconomic Fiscal Risks	SOF/STN/SETO/ME

1.4 Provisions and Reserves

It is important that countries maintain a reserve or "fiscal space" in their fiscal planning, in case certain risks materialize. However, its value is not tied to the evolution of the stock of fiscal risks. According to best practice, when such reserves are included in the budget, one should avoid any perception that excess spending can be financed unconditionally. Thus, criteria for accessing these resources should be established, in particular, delimiting the amounts for additional credits throughout the budget execution, as well as for financing unexpected events.

The OECD[2] emphasizes the responsibility of departments and agencies to monitor and prevent their respective fiscal risks, to allocate resources in their budgets for probable materialization, and to identify resources in their own budgets in case an unexpected risk materializes, before claiming resources from the general budget reserve.

In Brazil[3] , the provisions for legal and administrative losses are related to administrative and judicial proceedings filed against the Federal Government, but which can be reliably estimated. Therefore, they are amounts apt to be recognized as liabilities of the Federal Government. Thus, the accounting or not as a liability depends on the risk classification level attributed to the lawsuit in its analysis and can fit into the following classifications: a) Probable Risk: occurs when the probability of loss by the Federal Government is high, leading to the recording of the liability in the balance sheet; b) Possible Risk: occurs when the probability of loss is not high, but considerable. These amounts are considered contingent liabilities and are not recognized in the Federal Government's balance sheet but are mentioned in the notes to the financial statements; c) Remote Risk: occurs when the probability of loss of the lawsuit is considered remote and is not recorded or disclosed in the notes to the financial statements.

[2] OECD, op. cit.

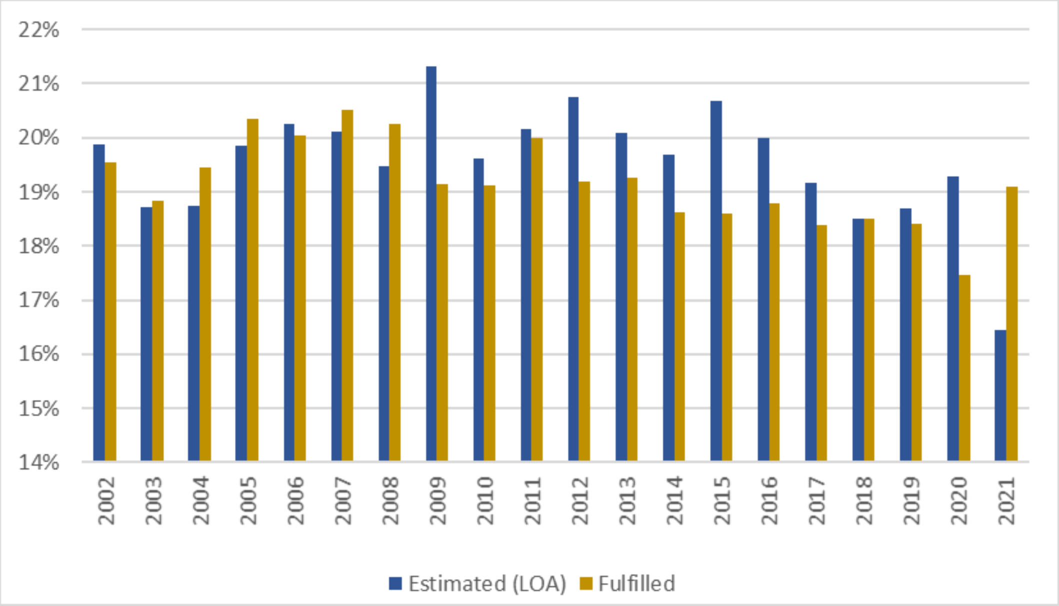
[3] https://www.tesourotransparente.gov.br/visualizacao/riscos-fiscais-com-demandas-judiciais-e-precatorios

2 Macroeconomic Risks

The variation of macroeconomic parameters in relation to the projections included in the budget pieces is the most common source of fiscal risks. In fact, empirical experience has shown that countries present, to a greater or lesser extent, divergences from the programmed fiscal targets, due to changes in the economic environment throughout the budget year. Such deviations generally derive from the intrinsic difficulties of macroeconomic projections, which rely on assumptions that are often simplified and are not able to capture all the interactions among the variables.

In the Brazilian case, a significant discrepancy was observed between the projections contained in the Annual Budget Law (LOA) and the values realized with regard to primary revenues[4] especially from 2009, as can be seen in Chart 3. A good part of this difference is explained by the discrepancy between the values forecast and those actually realized for economic growth and inflation, which suffered from the shock resulting from the Covid-19 pandemic in 2020 but proved more favorable than expected in 2021.

Chart 3 - Tax and Contribution Revenues - Estimated (LOA) vs. Fulfilled
Data in: % GDP
Source: STN/SETO/ME



In fact, in 2021, the Brazilian economy showed resilience, as reflected in the reduction of the primary deficit. After the adversities arising from the health crisis in 2020 and the consequent expenditures necessary to combat it, the reopening of the economy brought about the gradual recovery of important aggregates, with emphasis on the recovery of the services sector - and its reflection in the employment level - and the extractive industries, besides the growing importance of agriculture for the export agenda.

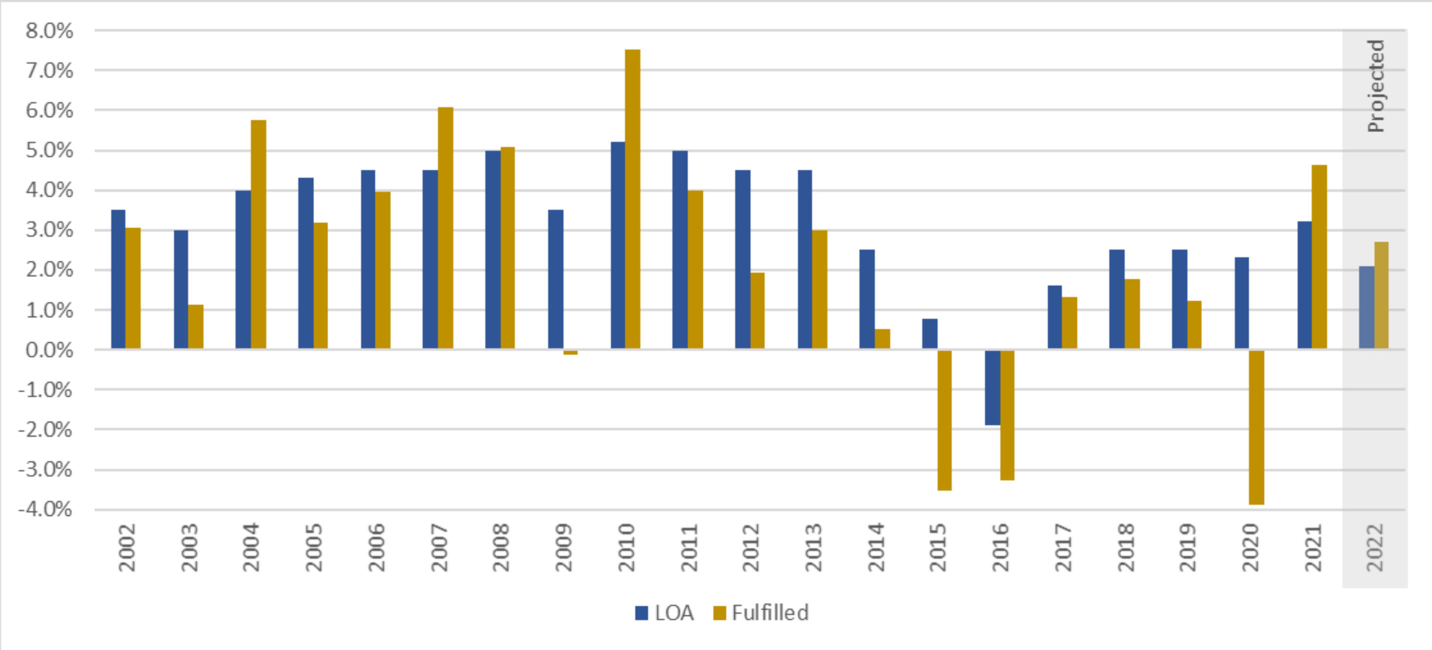
4 Compared to revenues, expenditures are by nature less sensitive to macroeconomic parameters in the short term.

Combined with this, the large monetary expansion due to aid to the world's population, the bailouts of the financial system, and the real economy led to the world entering a *commodity* cycle as early as 2021. The movement in prices has strengthened due to the recovery of the world economy after the removal of government restrictions in 2020. Thus, public revenues, driven by this cycle, showed a relevant improvement, despite the exonerations made to internally alleviate part of this price increase, especially in fuels.

This movement continued in the current year, which was also marked by extraordinary revenues arising from new stakes and concessions added to high dividends.

Notwithstanding the growth in revenues over the past two years, spending has also grown, but at a less rapid pace following the large, extraordinary spending in 2020. This is due to the anchorage provided by the spending cap, despite the adjustments made throughout 2021 and 2022. Among these accommodations, we highlight the one resulting from EC nº 113/2021, which instituted the new system of payments of court-ordered debts (precatórios), and the emergency expenditures derived from EC nº 123/2022, which enabled increases in the Brazil Aid, the Gas Aid and other aids aimed at minimizing the loss of purchasing power of the less favored classes.

Chart 4 - Real GDP Variation - Estimated (LOA) vs. Actual
Data in: %
Source: LOA, IBGE and SPE Grid of 09/12/2022



The combined effect of the increase in tax collection and expenditure control should bring forward to this year the return of the surplus that was expected only for 2025, according to the LDO, and the reduction of the General Government Gross Debt to less than 77% of GDP.

Based on this, this chapter analyzes the fiscal risks arising from the variability of the macroeconomic parameters used to forecast the revenues administered by the Brazilian Federal Revenue Service (RFB), primary expenditures and the government's primary outcome, and public debt. Later, exercises on stress scenarios and their impact on fiscal variables will be presented.

2.1 Sensitivity of the Revenues Administered by RFB

The evaluation of the sensitivity of the collection comprises, initially, the identification of the revenue lines that are related to the economic cycle. Within the budget, the revenues are presented in three major groups: Revenues Administered by the RFB[5] ; Net Revenues for the RGPS; and Revenues not Administered by the RFB. A Table 2 shows the share of each group in the total primary revenue of 2021.

The revenues administered by the RFB are the main group within the revenue set (62%) and include the main taxes and contributions of the national tax system. By the nature of their tax base, it is easy to verify that there is a high correlation of the collection of these revenues with the economic cycle. In a similar way, the tax base of the social security revenues is the payroll that is also linked to the economic cycle, with an increase in wages and in the level of employment in economic expansions and opposite behavior in recessions.

Table 2 - Central Government Primary Revenues Indexed to Macroeconomic Parameters
Source: National Treasury and RFB/ME results

Revenue items	Revenue in 2021 R$ million	Share in Total Primary Revenue	Indexers
Revenue Managed by the RFB	1,195,712	61.87%	GDP, Inflation, Exchange Rate, Wage Bill, Interest (Over)
Social Security Revenue	462,244	23.92%	GDP, Inflation, Wage Bill
Revenue Not Managed by the RFB			
Education Salary Contribution	24,022	1.24%	GDP, Inflation
Exploitation of Natural Resources	94,064	4.87%	Oil Prices, Iron Ore, Exchange Rate
Total of items (A)[1]	**1,776,042**	**91.90%**	
Concessions and permits	9,866	0.51%	
Contr. Public Servant Social Security Plan	17,945	0.93%	
Dividends and Shares	43,484	2.25%	
Others	85,473	4.42%	
Total of items (B)[2]	**156,768**	**8.11%**	
Tax incentives (C)	-160	-0,01%	
Total (A+B+C)	**1,932,650**	**100.00%**	

[1] Revenue items related to macroeconomic parameters
[2] Revenue items not related to macroeconomic parameters

[5] Net of refunds.

Revenues not Administered by the RFB, on the other hand, constitute a very heterogeneous group that includes, for example, revenues from Concessions and Permissions, Contribution to the Employee Security Plan (CPSS), Own Revenues and from Agreements, among others. In the analysis of the items related to the economic cycle, only the Contribution to the Education Salary and the Exploitation of Natural Resources were significant, and, in the latter, the explanatory variables are the prices of specific commodities (oil, iron ore) and the exchange rate.

A Table 3 presents the estimated effect of a 1 percentage point (p.p.) variation in the main parameters on tax collection that make up the Revenue Administered by the RFB, based on the parameters estimated by the Secretariat of Economic Policy (SPE/ME). The sensitivity analysis shows that the rate of economic growth and inflation are the parameters that most affect the total revenue administered by the RFB. It can be seen that taxes are affected at the same time by more than one parameter. By analogy, the effect of the variation of these parameters on revenue is the result of the combination of two factors: price and quantity effects.

Table 3 - Revenue Administered by RFB - Impact % of the Variation of 1 p.p. in Each Parameter
Source: RFB/ME

Parameter	Impact on Revenue Managed by RFB	
	Except Social Security	Social Security
GDP	0.66%	0.16%
Inflation (IER) [1]	0.61%	0.15%
Exchange rate	0.09%	-
Wage Bill	0.08%	0.75%
Interest (Over)	0.02%	-

[1] The Revenue Estimate Index (IER) is composed of a weighted average that assigns 55% to the average IPCA rate and 45% to the average IGP-DI rate.

The revenues administered by the RFB, except for social security, are most affected by the real growth rate of the GDP and by inflation, which influence the main taxes collected, such as the Contribution for the Financing of Social Security (COFINS), Contribution to the Social Integration Program (PIS), Contribution to the Program for the Formation of Public Servants' Equity (PASEP) and Tax on Income and Earnings of Any Nature (IR). Regarding the social security revenues, there is a strong relationship with the wage bill, a variable that makes up most of the tax base of this contribution.

In nominal terms, GDP is the variable that produces the greatest impact on primary revenues. As can be seen in Table 4 an increase of 1 p.p. of GDP causes, all other things being equal, an increase of R$ 10,1 billion in tax collection, most of which is concentrated in the Revenues Administered by the RFB (R$ 9,1 billion). Similarly, an increase in inflation of 1 p.p., all other things being equal, results in an increase of R$ 9,3 billion in total revenue. In the aggregate, considering a joint increase of all variables by 1 p.p., there would be an increase in revenue of approximately R$ 26,4 billion.

It is necessary to ponder that the macroeconomic variables are correlated among themselves, so that assuming that only one variable will move, while the others remain static, is a necessary simplification for this hypothetical exercise. Additionally, it is worth noting that the RFB also develops projections of its Managed Revenues through a methodology that considers a larger set of explanatory variables. Thus, there may be divergence between the values estimated for this Report and the official figures calculated by the Federal Revenue Service.

Table 4 - Revenues - Impact of a 1 p.p. Variation in Macroeconomic Variables
Data in: R$ million
Source: RFB/ME

Revenue Items	Variables				
	% GDP	Inflation (IER) [1]	Exchange rate	Wage Bill	Interest (Over)
Revenue Managed by the RFB	9,098	8,409	1,214	1,103	276
Social Security Revenue	952	893	0	4,463	0
Total	**10,051**	**9,302**	**1,241**	**5,566**	**276**

[1] The Revenue Estimate Index (IER) is composed of a weighted average that assigns 55% to the average IPCA rate and 45% to the average IGP-DI rate.

2.2 Primary Expenditure Sensitivity

Primary expenditures are made up of several items, with highlight to payroll expenditures, social security benefits, welfare benefits linked to the minimum wage, Salary Allowance and Unemployment Insurance, etc. The forecast risks[6] generally derive from variations in macroeconomic parameters and estimated amounts. Thus, this subsection presents the sensitivity analysis of the Central Government primary expenditures in relation to the macroeconomic parameters updated according to the SPE/ME parameter grid of September 12, 2022.

The sensitivity analysis in this section was performed based on the expenditure aggregates whose variation is directly related to two main parameters: the National Consumer Price Index (INPC) and the minimum wage (SM). The expenditures directly impacted by these parameters are the social security and welfare benefits, the Salary Allowance and Unemployment Insurance, which together correspond to 55.1% of the primary expenditures of the Central Government in 2021, as can be seen in Table 5.

[6] Deviations from the projections may also arise from the result of the judgment of ongoing lawsuits, a subject dealt with in Section 3.1 of this document, which presents an analysis of the risks of contingent liabilities.

Table 5 - Central Government Primary Expenditure Indexed to Macroeconomic Parameters
Data in: R$ million
Source and Elaboration: STN/SETO/ME

Expenditure Items	Expenditure in 2021	Share in Primary Expenditure	Indexer
Personnel and Social Charges	329,347	20.4%	Agreed Adjustments and INPC [1]
Social Security Benefits	709,583	44.0%	Minimum wage and INPC
Social Assistance Benefits (LOAS and RMV)	67,668	4.2%	Minimum Wage
Unemployment Insurance	35,736	2.2%	Minimum wage and INPC
Salary Allowance	10,158	0.6%	Minimum Wage
Total of items (A)[2]	**1,152,492**	**71.4%**	
Other Mandatory Expenses	337,761	20,9%	
Discretionary Expenses of the Executive Branch	123,918	7,7%	
Total of items (B)[3]	**461,679**	**28.6%**	
Total (A+B)	**1,614,171**	**100.0%**	

[1] For the expenses with Personnel and Social Charges, the impact of the risk related to the price index is low, since this index is a parameter for correcting only the retirements and pensions of the public servants who migrated to inactivity without the right to parity.
[2] Expenses indexed to Macroeconomic parameters.
[3] Expenses not indexed to Macroeconomic parameters.

Social security expenditures and revenues are directly affected by the INPC and the SM, the latter being the floor for social security benefits and remuneration in the formal labor market. On the other hand, the INPC variation is the adjustment factor of the social security benefits above the minimum wage and of the contribution ranges. The welfare benefits (RMV and BPC) and the Salary Allowance are directly affected by the SM and indirectly by the INPC, since this index is currently part of the minimum wage adjustment index. Unemployment Insurance, on the other hand, is directly affected by both indexes, since the floor for the payment of the benefit is defined in the value of one minimum wage and the cap is readjusted by the INPC variation.

A Table 6 presents the impacts on the selected primary expenditures resulting from the variation in the INPC. As can be seen, with the exception of Unemployment Insurance, all other expenditures have an equal relationship with variations in the INPC, so that a 1 p.p. increase in the INPC leads to an increase of the same proportion in the respective expenditure.

Table 6 - Primary Expenditures - % Impact of the 1 p.p. Variation in INPC
Source and Elaboration: STN/SETO/ME

Primary Expenditures	Impact resulting from the 1 p.p. variation in the INPC
Social Security Benefits	1.00%
RMV	1.00%
BPC/LOAS	1.00%
Salary Allowance	1.00%
Unemployment Insurance	0.65%

At Table 7, the sensitivity of the RGPS expenditures and tax collection is shown in response to a variation of R$ 1,00 in the minimum wage or 0,1 p.p. in the INPC[7] . As can be seen, each real increase in the minimum wage generates an increase, in 2023, of R$ 389,8 million a year in Central Government expenditures and an increase of R$ 23,4 million in social security collection, resulting in a net reduction of R$ 366,4 million in the Central Government result for 2023. Inflation, on the other hand, affects the adjustment of a larger number of beneficiaries, generating an increase, in 2023, of R$ 876,8 million in Central Government expenditures and an increase of R$ 30,2 million in social security collection, resulting in a net decrease of R$ 846,6 million in the Central Government result for 2023. To evaluate the impact on the space for Discretionary Expenditures and compliance with the Expenditure Cap, the line "Total Expenditures" should be observed, while to evaluate the impact on compliance with the primary result target, the line "Total Result" should be observed.

Table 7 - Effect of the Minimum Wage and the INPC
Data in: R$ million
Source and Elaboration: STN/SETO/ME

Items	R$ 1.00 increase in the Minimum Wage	Increase of 0.1 p.p. in the INPC[1]		
	Benefits of 1 Minimum Wage	Benefits of 1 Minimum Wage	Benefits above 1 Minimum Wage	Total
I. RGPS Collection	23.4	28.7	1.5	30.2
II. Social Security Benefits	295.0	311.6	450.6	762.3
III. Deficit of RGPS (II - I)	271.6	283.0	449.1	732.1
IV. Assistance Benefits	60.8	66.0	-	66.0
IV.1 RMV	0.8	0.8	-	0.8
IV.2 BPC/LOAS	60.0	65.3	-	65.3
V. FAT	34.0	38.2	10.3	48.5
V.1 Salary Allowance	18.8	21.5	-	21.5
V.2 Unemployment Insurance	15.2	16.7	10.3	27.0
Total Revenue (I)	**23.4**	**28.7**	**1.5**	**30.2**
Total Expenses (II + IV + V)	**389.8**	**415.9**	**460.9**	**876.8**
Result (III + IV + V)	**366.4**	**387.2**	**459.4**	**846.6**

[1] The variation in the INPC directly impacts expenses whose adjustment is associated with its variation or, indirectly, from its impact on the adjustment of the Minimum Wage.

[7] Equivalent to a R$1.21 increase in benefits up to one minimum wage.

Another possible analysis in relation to the variation of macroeconomic parameters is the impact of the IPCA on the limit of expenditures subject to EC nº 95/2016, since the limit is corrected by the IPCA variation calculated in the previous year to which the budget law refers. For 2023, as shown in Table 8the deviation of 0,1 p.p. of the estimated IPCA variation causes a impact of R$ 1.681,20 million in the expenditure limit.

Table 8 - Effect of the 0.1 p.p. variation in the IPCA on the expenditure limit subject to Constitutional Amendment 95
Data in: R$ million
Source and Elaboration: STN/SETO/ME

Powers Office of the Public Defender Public Prosecutor's Office	2022 Expenditure cap subject to EC no. 95[1]	2023 Variation of 0.1 p.p. of the IPCA at the Limit	2023 Projection of expenditure limit subject to EC no. 95
Executive Branch	1,608,480.1	1,608.5	1,707,952.1
Legislative Branch	14,510.3	14.5	15,407.7
Judiciary Branch	49,947.2	49.9	53,036.1
Office of the Public Defender	632.3	0.6	671.4
Federal Government Public Prosecutor's Office	7,625.8	7.6	8,097.4
Total	**1,681,195.8**	**1,681.2**	**1,785,164.7**

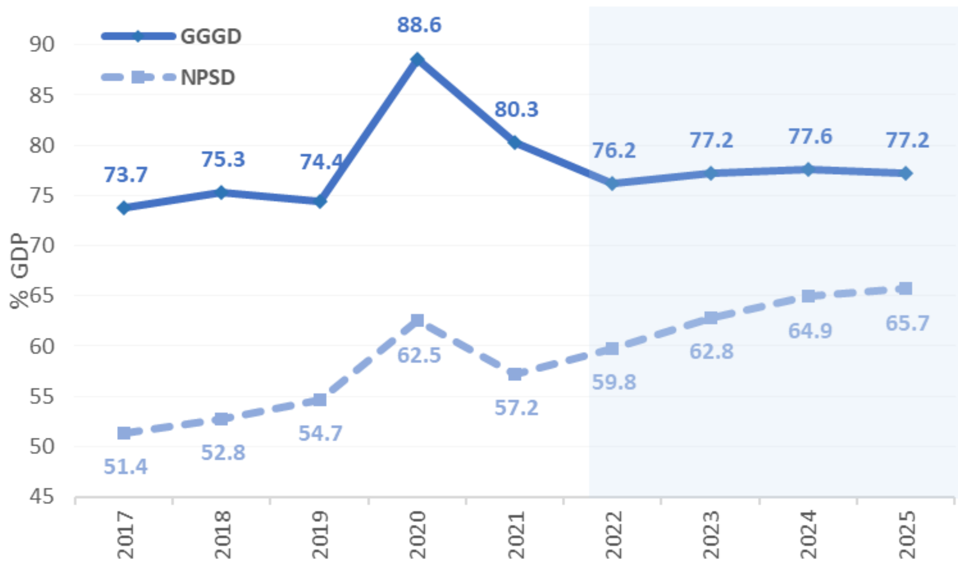
[1] Projection based on the estimated value for IPCA variation (6.30%) present in the parameters grid of the SPE of September 2022. To determine the calculation basis of the projection, the IPCA variation adopted for the 2022 LOA (10.18%) was deducted from the 2022 expenditure limit and the effective variation of that index for 2021 (10.06%) was applied to the result of this operation, as determined by paragraph 14 of article 107 of the ADCT, included by EC 113 of 2021.

2.3 Public Debt Sensitivity

2.3.1 Net Public Sector Debt (NPSD) and General Government Gross Debt (GGGD)

In 2022, the GGGD continued to decline, explained primarily by nominal GDP growth. The analyses indicate that at the end of 2022, the General Government Gross Debt (GGGD) would represent 76.2% of GDP - a reduction of 4.1 percentage points in relation to the close of 2021. It is estimated that the GGGD will follow a slightly upward trajectory over the next few years, pressured by nominal interest rates, reaching the 77.2% of GDP mark at the end of 2025, as shown in Chart 5.

Chart 5 - Debt Projections - NPSD and GGGD
Data in: %GDP
Source: Realized, BCB. Projections: STN/SETO/ME



The NPSD, in turn, would reach 59.8% of GDP by the end of 2022 - an increase of 2.6 percentage points in relation to 2021. Although also benefited by the nominal GDP growth in 2022, the NPSD is more pressured by the nominal interest rates since the assets that are deducted from this indicator present lower remuneration. The NPSD presents an increasing trajectory over the projection horizon. The upward trajectory of the NPSD is linked to the differential between the interest rate (implicit in NPSD) and the GDP growth rate.

After a strong reversal of the effects of the pandemic on the level of debt in 2021, in 2022 the GGGD returns to levels close to those observed pre-pandemic. Despite the drop in the debt/GDP ratio, Brazil's gross debt remains above the average of its peers. In a sample of 16 investment grade emerging economies (not including Brazil), it is observed that the average GGGD/GDP is 61%, while the 75th percentile is around 69%, as shown in Chart 6. Thus, it is evaluated that Brazil's GGGD/GDP ratio would need to converge to around 70% to be compatible with the reality of countries with investment grade.

Therefore, the fiscal consolidation process cannot be neglected, as well as the importance of its credibility. The credibility of the consolidation process is based on the fiscal rules in effect, especially the spending cap, the main fiscal anchor of the country. A relaxation of the consolidation effort

Chart 6 - Distribution of GGGD in 2021
(Investment Grade Emerging Markets)
Data in: %GDP
Source: Fiscal Monitor - April 22 (IMF).

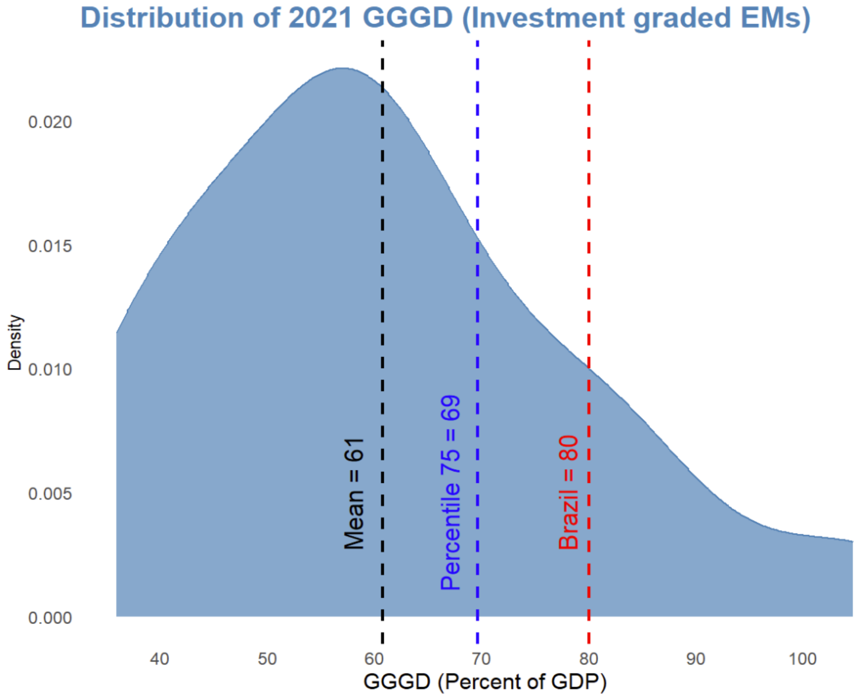
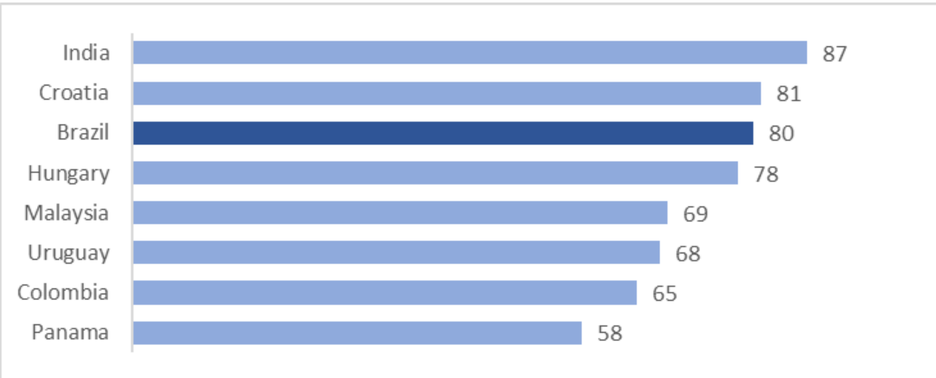
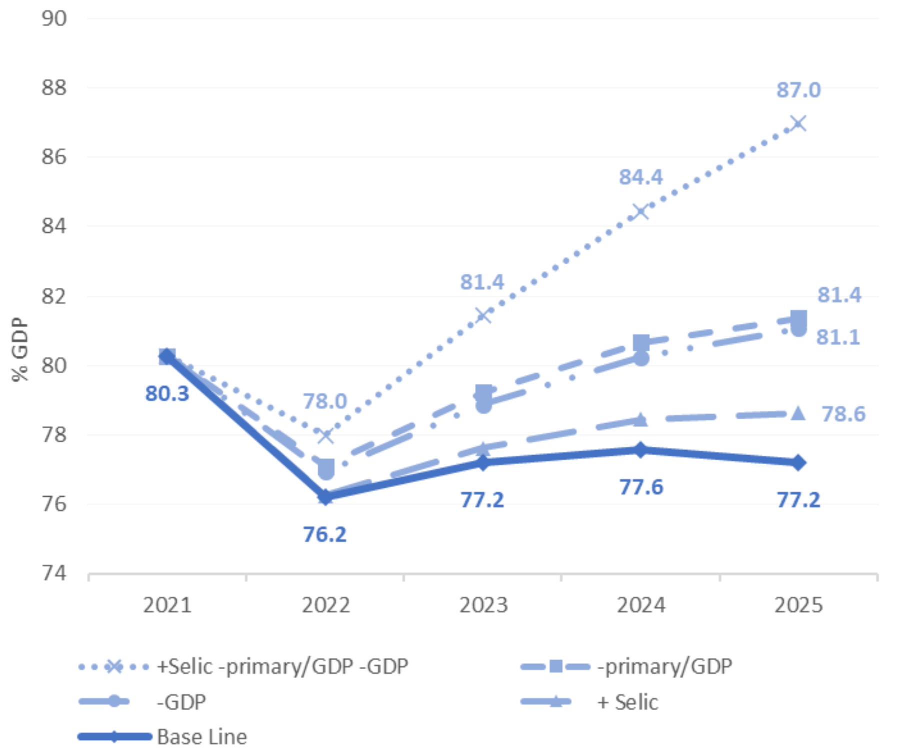


Chart 7 - GGGD in 2021: Brazil and Investment Grade Emerging Markets
Data in: %GDP
Source: Fiscal Monitor - April 22 (IMF)



would have the effect of increasing the cost of debt, in a context that results in a greater perception of risk by the market. Furthermore, the longer this process takes, the greater the fiscal effort required in the future to reverse the GGGD trajectory tends to be. The persistent increase in indebtedness to higher levels would also bring known macroeconomic consequences, reducing the prospects for economic growth and negatively impacting, also through this channel, the trajectory of the GGGD.

Chart 8 - Public Debt Sensitivity Analysis - GGGD
Data in: % of GDP
Source: Realized, BCB. Projections: STN/SETO/ME



The Chart 8 shows the results of simulations of adverse shocks beginning in 2022 on three variables that are fundamental to the dynamics of the public debt, namely: i) GDP growth 1 percentage point per year lower than the baseline scenario (also considering an estimate of the impact on the primary result of lower growth); ii) interest rates 1 percentage point per year higher than the baseline until the end of the projection horizon; iii) primary outcome 1% of GDP per year lower than the baseline; iv) the three shocks combined. The shocks here are stylized to provide an analysis of the sensitivity of debt to standardized changes in variables. Stress shocks will be explored later in this paper.

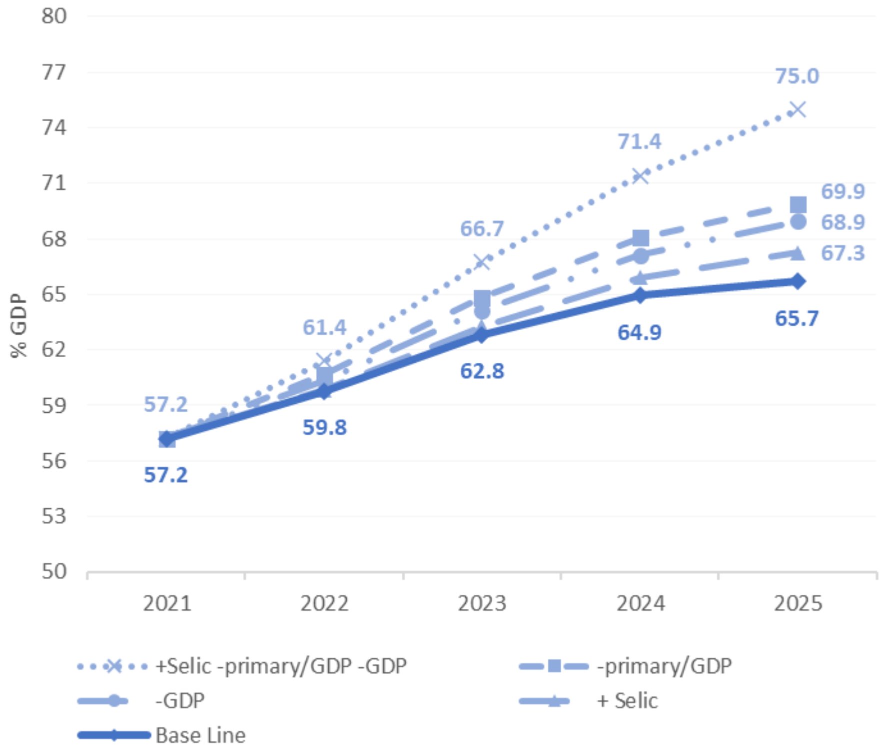
The increase in the interest rate would raise the GGGD to 78.6% of GDP, a 1.4% increase in GDP from baseline at the end of 3 years. The GDP and primary shocks, in isolation, would result in similar effects to each other. At the end of 2025, the primary shock would result in a debt of 81.4% of GDP, which would represent an effect of 4.2 p.p. of GDP relative to the base. In turn, the combination of the three shocks would bring the GGGD to 87.0% of GDP in 2025, equivalent to 9.8 p.p. of increase in indebtedness in relation to the baseline scenario.

It is reasonable to assume that an adverse shock to one of these variables will be combined with negative impacts on the others. That is, a scenario with a higher primary deficit tends to be accompanied by higher real interest rates and lower GDP growth, even if the proportions in the shocks do not occur as stylized in the sensitivity analysis present in

Chart 8. Thus, lower levels of debt/GDP in the medium term require the continuity of reforms that favor the business environment and higher GDP growth, especially those that favor fiscal consolidation.

The analysis and conclusion with reference to the net indebtedness indicator are similar, as presented in Chart 9. For example, it should be mentioned that the effect of a combined shock would reach 9.3 p.p. of GDP by the end of 2025, in a scenario where the NPSD would reach 75.0% of GDP, against 65.7% in the baseline scenario (without shocks).

Chart 9 - Public Debt Sensitivity Analysis - NPSD
Data in: % of GDP
Source: Realized, BCB. Projections: STN/SETO/ME



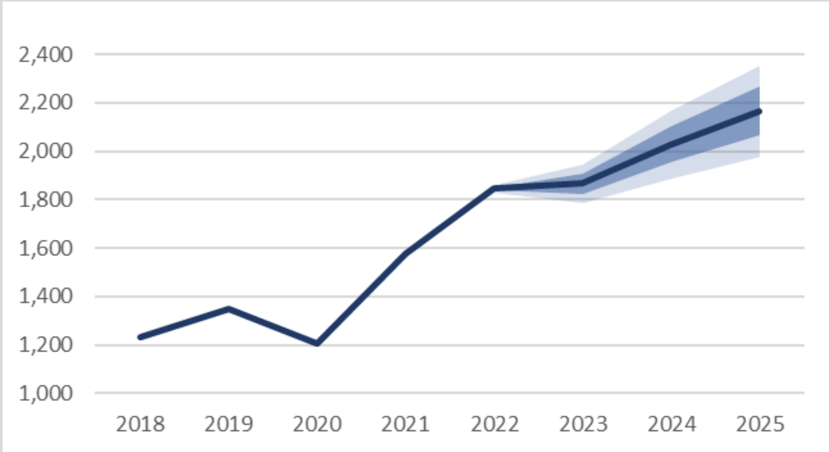
2.4 Simulations of Macroeconomic Parameters Stress Scenarios

The stress evaluations of macroeconomic indicators used as the midpoint of the distribution the values from the Parameters Grid provided by SPE/ME[8] , which served as the median (base case) for all indicators. Five hundred stochastic realizations were simulated for the macroeconomic parameters, considering a multivariate normal distribution with mean given by the parameters grid and variance-covariance matrix estimated according to historical data. From this, considering the relevant variables for each item, the stochastic trajectories of revenues, expenditures, primary result and public debt were estimated. For the analysis of the Charts presented below, the central line corresponds to the median of all trajectories. The other lines represent the 10th to 90th percentiles. Thus, values at the extreme points are in the first and tenth deciles.

2.4.1 Revenues

The macroeconomic scenarios generated were applied to four of the largest revenue categories: the Revenues Administered by the RFB (except for social security), the Social Security Revenues; and, within the Revenues not Administered by the RFB, the revenues from the Education Salary Contribution and the revenues from the Exploitation of Natural Resources (according to Table 2). These four categories correspond to, approximately, 92% of the federal collection in 2021. The results, presented in Chart 10 provide a cloud of possibilities of alternative realizations to the central scenario.

Chart 10 - Spectrum of Alternative Scenarios for Net Revenues
Data in: R$ billion
Source and Elaboration: STN/SETO/ME



The simulations performed show that net revenues can vary significantly over time, reflecting the high variance related to macroeconomic variables and their impact on revenues. In fact, tax collection is the component most subject to changes in the business cycle and/or prices within the budget since they depend not only on inflation but also on the variation of the gross domestic

[8] Parameters updated on September 12, 2022.

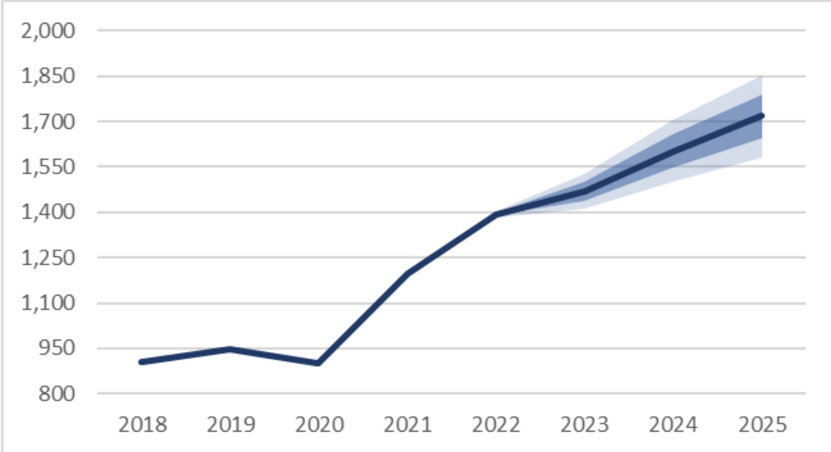
product. As was to be expected, in periods farther away from the initial projection point, the clouds of probabilities become larger, due to the growing uncertainty intrinsic to longer projections.

For 2023, the estimate points to a net revenue of R$ 1,866 billion, a value that can be increased (reduced) by up to R$ 80 billion, in case the upper (lower) extreme case is reached[9] . For the following years, a similar analysis reveals a margin in relation to the base scenario and the extreme limits of R$ 141 billion in 2024 and R$ 189 billion in 2025.

2.4.1.1 Revenues Administered by RFB

In disaggregated terms, the Revenues Administered by the RFB (excluding social security revenues) correspond to the largest portion of total net revenues, besides being the group of revenues most sensitive to variations in the macroeconomic scenario. As a result, the Revenues Administered by the RFB are the group that presents the greatest variability in the collection of its revenues as a whole.

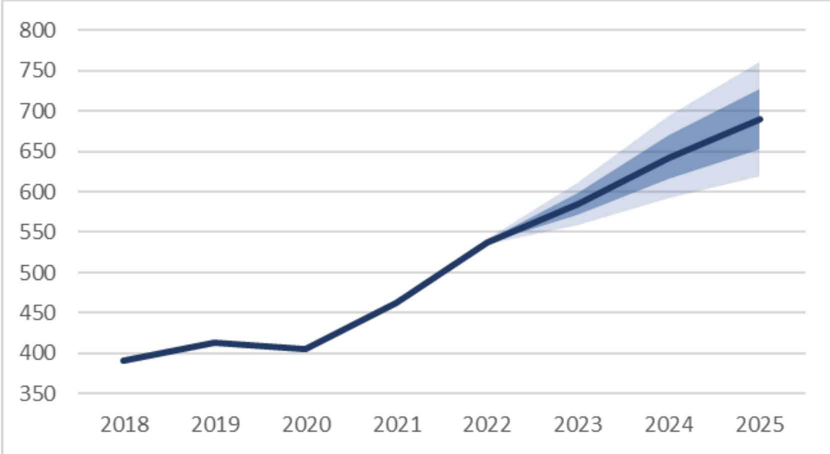
Chart 11 - Spectrum of Alternative Scenarios for Revenues Managed by RFB, Exclusive of Social Security
Data in: R$ billion
Source and Elaboration: STN/SETO/ME



[9] The extreme cases of the distribution shown in the Chart would be related to the 10th (lower) and 90th (upper) percentiles. It is important to note that realizations below or above the values shown are possible, but the probability of their occurrence is low

Taking the extreme scenario[10] as a reference, the revenues administered by the RFB vary about 3,9% or R$ 58 billion in 2023, reaching 7,9% or R$ 136 billion in 2025. As mentioned, GDP and inflation are the main variables that explain the divergence between possible scenarios.

Chart 12 - Spectrum of Alternative Scenarios for Pension Revenue
Data in: R$ billion
Source and Elaboration: STN/SETO/ME



As previously mentioned, the Social Security Revenues present a growth trajectory as a function of the projected increase in GDP and the salary mass. Thus, the cloud of scenarios for this variable is the result of distinct combinations of economic growth and labor market performance.

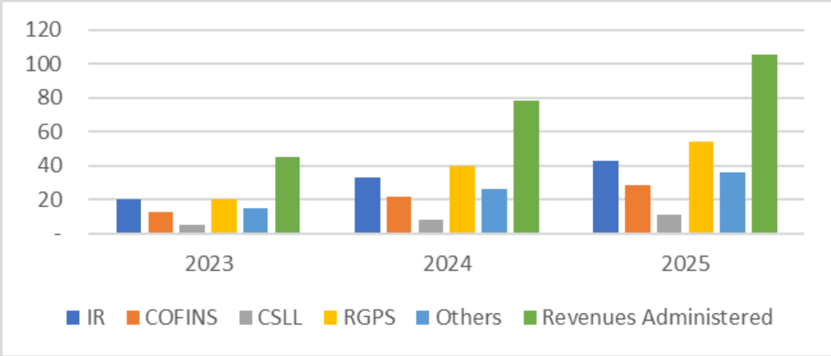
Similarly to the Revenues Administered by the RFB, the Social Security Revenues present a great variation in function of the macroeconomic scenarios, with a difference of 4,5% or R$ 26 billion between the central scenario and the extreme scenarios in 2023 and of up to 10,2%, about R$ 70 billion, in 2025.

In aggregate terms, the variance of the Revenues Administered by the RFB, including Social Security Revenues, over the analyzed period is explained mainly by the variation of Income Tax, RGPS Collection, COFINS and CSLL. The Chart 13 shows the standard deviation of each of these taxes and illustrates the relevance of these volatility components to the analysis of total collection.

Note that the order of magnitude of collection correlates with the magnitude of uncertainty. However, the RGPS detaches itself from the income tax group over time, since it has great exposure to the labor market, which has been very volatile due to the recent crises over the last decade. In turn, the increase in the magnitude of the standard deviations of all taxes over the years reflects the increase in uncertainty inherent to the exercise, expressed through the increase in variance.

[10] The difference from the center of the first decile to the center scenario was taken and divided by this to infer the variation of the extreme.

Chart 13 - Standard Deviation of Revenues Administered by RFB
Data in: R$ billion
Source and Elaboration: STN/SETO/ME

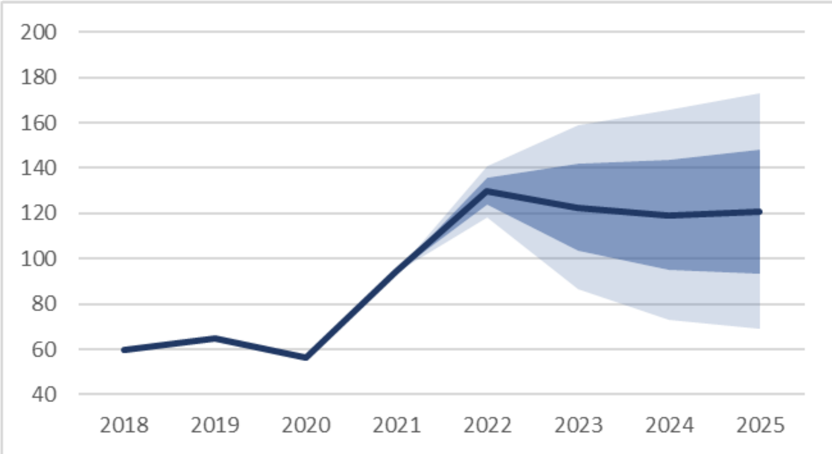


2.4.1.2 Exploitation of Natural Resources

Among the Revenues not Administered by the RFB, the greatest variation considered corresponds to that related to the Exploitation of Natural Resources item. This item aggregates several revenues related to mineral production, use of water resources and, mainly, oil and gas exploration. In this sense, changes both in the price of *commodities*, such as iron and oil, and in the exchange rate have a significant influence on the collection of Natural Resources Exploration, including in the short term. For this exercise, the cloud of possibilities estimated takes into account only the variations arising from the exchange rate, keeping the other variables constant.

The difference between the lower end in terms of the central scenario amounts to a 30% variation from the central case for 2023, about R$ 36 billion, reaching 43% for 2025, or about R$ 52 billion, the case with the highest percentage variation.

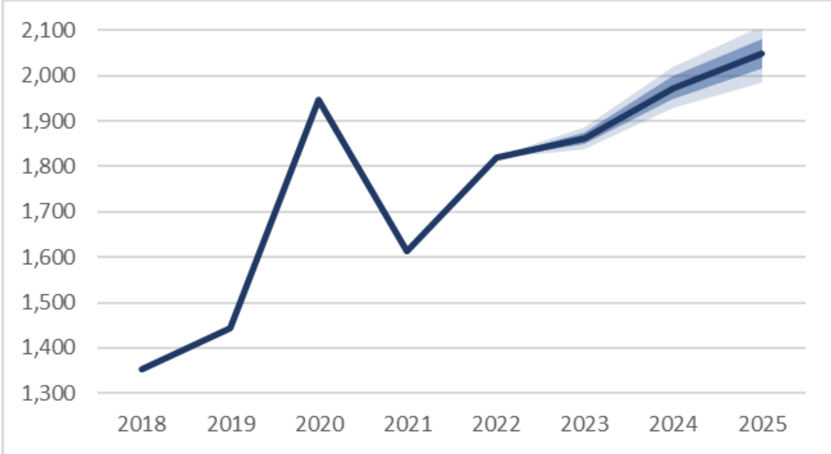
Chart 14 - Spectrum of Alternative Scenarios for Natural Resource Exploration Revenues
Data in: R$ billion
Source and Elaboration: STN/SETO/ME



2.4.2 Expenditures

As presented in Section 2 of this report, the macroeconomic scenario is relevant to determine the evolution of specific expenditures, especially regarding the indexation to price indexes determined by law. For the evolution of Total Expenditures, in turn, the key variable is the inflation measured by IPCA in the previous year, given the limitation imposed by the spending cap disciplined by EC nº 95/2016.

Chart 15 - Spectrum of Alternative Scenarios for Total Spend
Data in: R$ billion
Source and Elaboration: STN/SETO/ME



Thus, although the limit for expenditures subject to the Cap grows according to the IPCA, the mandatory components of the expenditure may grow above or below this index, representing compression or decompression of discretionary spending. However, for the stochastic exercise presented in this report, an approach was adopted in which discretionary expenditures were nominally maintained at the central scenario values[11] and mandatory expenditures varied according to several macroeconomic scenarios. Thus, one can assess under simplifying assumptions, what would be the risk of the Total Expenditure subject to the Cap exceeding the limit imposed by the Cap.

To this end, this section presents expenditure trajectories based on current legislation, but subject to different macroeconomic scenarios. Namely, the macroeconomic impact on expenditures with Social Security Benefits, Social Assistance Benefits (LOAS and RMV), Unemployment Insurance, Salary Allowance, among others, was considered. For expenditures that are not directly dependent on the macro scenario, such as Personnel and Social Charges and Discretionary Expenditures, the hypothesis of maintaining the nominal expenditures stipulated by the deterministic trajectory was adopted. Furthermore, in this exercise, shocks in expenditures with Personnel and Charges were not considered, since this variable is under the government's control[12] . Other assumptions used concern the correction of the minimum wage to maintain its purchasing power and the growth of expenditures with Judicial Sentences at a pace compatible with Constitutional Amendments 113/2021 and 114/2021.

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[11] To inform the preparation of this report, a deterministic scenario for revenues, expenditures, and primary outcome was developed according to the SPE parameter grid of September 12, 2022.

[12] Although there is some level of indexation to the INPC of social security benefits for public servants who migrated to inactivity without the right to parity, this amount is not very significant in the context of Personnel and Social Security costs.

The results shown in Chart 15 show that the variation in expenditures, that is, the amplitude of the ranges around the central path, is relatively smaller when compared to that of revenues. In general, this effect occurs because the quantity of beneficiaries of social security or social assistance is more associated with demographic factors or public policy choices and less associated with the macroeconomic situation, which is the factor measured in this section. Moreover, a significant portion of mandatory spending, such as social security and welfare benefits, are indexed to inflation, but not to other macroeconomic variables such as GDP, the exchange rate, among others that affect revenues, which reduces their potential volatility.

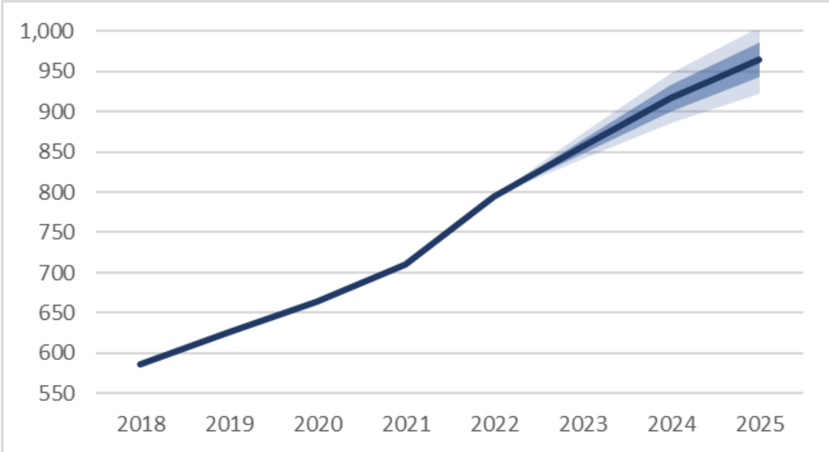
Thus, the estimated projections indicate in extreme cases, whose associated probability is small, a variation in expenditures of R$ 24,0 billion in 2023 and R$ 61,6 billion in 2025.

2.4.2.1 Social Security and Welfare Expenditures

Detailing the analysis, most of the expected variations in the total expenditures listed above are due to the large expenditures on welfare benefits. Besides the high share in primary expenditures (around 52%, when excluding the extraordinary costs of fighting the pandemic), the social security and welfare expenditures are directly influenced by the minimum wage, which, in turn, is a function of past inflation. There is also a dependence of this item on the GDP, but to a lesser extent. The higher the economic activity, the greater the formalization of the labor market and the higher the salaries, which results in higher expenditures in the social security system. Therefore, scenarios with higher inflation or more significant economic growth are reflected in higher social security and welfare expenditures.

The variation from the central scenario to the extremes, as shown in Chart 16, reaches about R$ 16,1 billion in 2023, or something like 1.9% variation, increasing to about R$ 40,9 billion in 2025, a variation of about 4,2%.

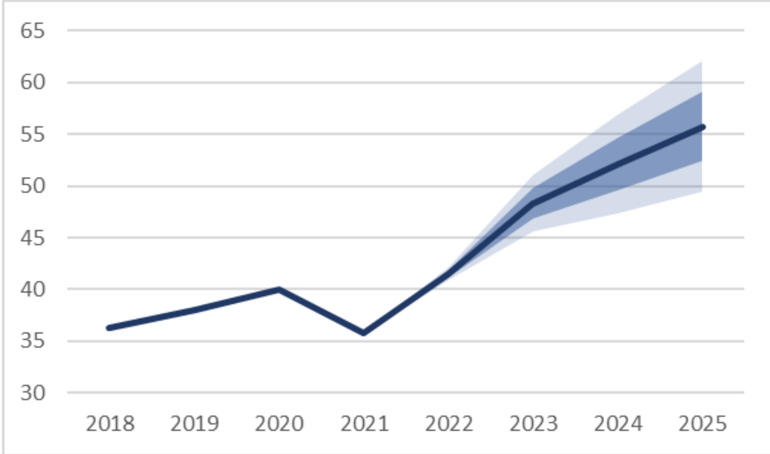
Chart 16 - Spectrum of Alternative Scenarios for Social Security and Welfare Benefits
Data in: R$ billion Source and Preparation: STN/SETO/ME



2.4.2.2 Salary Allowance and Unemployment Insurance

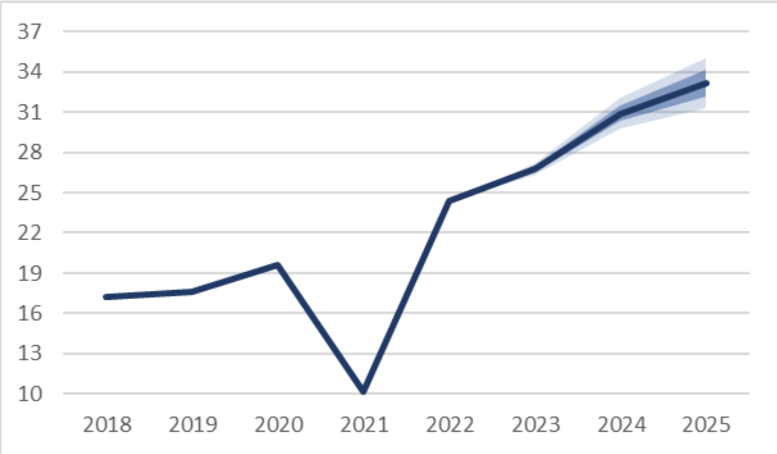
Salary Allowance and Unemployment Insurance are two other expenditures that vary according to macroeconomic parameters, especially because of movements in the labor market. For example, changes in the level of unemployment affect the payment of unemployment insurance, but in the Brazilian case, this relationship is pro-cyclical: the increase in the proportion of formal job openings in times of economic expansion implies an increase in this expenditure, which stems from the stability of the labor force turnover rate. Salary Subsidy, in turn, comprises the payment of a minimum wage to formal workers whose income is equal to or less than two minimum wages. Therefore, this expenditure is strongly linked to formal employment and to the ratio between the value of the minimum wage and the average nominal income of the labor market.

Chart 17 - Spectrum of Alternative Scenarios for Unemployment Insurance
Data in: R$ billion



The variation from the central scenario to the extreme scenarios is approximately R$ 2,8 billion in 2023, increasing to R$ 6,3 billion in 2025. In percentage terms, these values represent a variation of 5,7% of this item in 2023, a value that reaches 11,3% in 2025. Therefore, in relative terms, this is the expenditure with the greatest variation both in the short and medium term. It is noteworthy, however, that this item represents a small portion of total public spending.

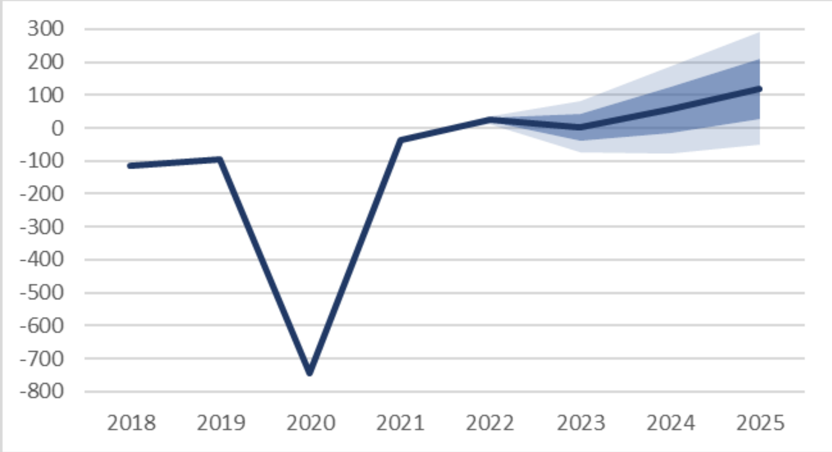
Chart 18 - Spectrum of Alternative Scenarios for Wage Subsidy
Data in: R$ billion
Source and Elaboration: STN/SETO/ME



Similarly, the variations of the Wage Allowance are significant in relative terms, with a difference of about R$ 1,9 billion, or approximately 5,7%, of the extreme values in relation to the central in 2025. Nevertheless, this expenditure also constitutes a small portion of total expenditure.

2.4.3 Primary Outcome

Chart 19 - Spectrum of Alternative Scenarios for Primary Results
Data in: R$ billion
Source and Elaboration: STN/SETO/ME



The primary outcome is derived from the combination of the revenue and expenditure curves generated in each distinct economic scenario. Note that macroeconomic parameters that result in an increase in revenues may also lead to a concomitant increase in expenditures, so that the ordering of the primary result scenarios differs from those of revenues and expenditures considered separately.

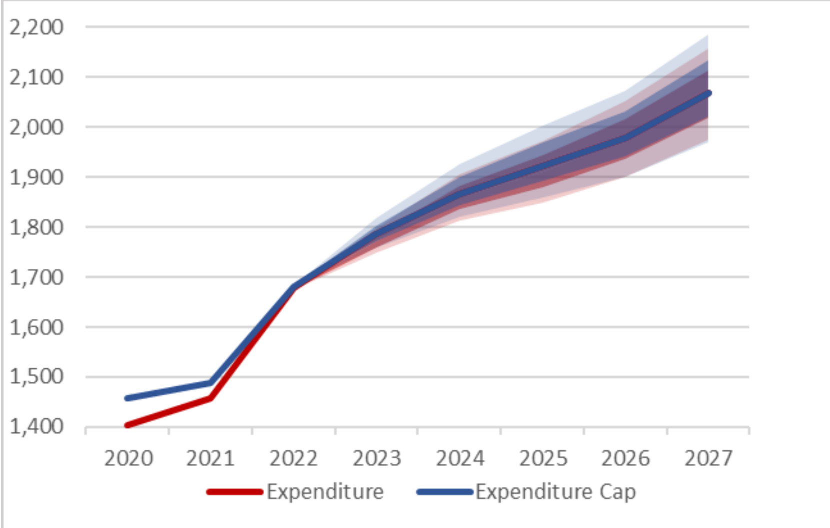
The primary outcome trajectories presented in Chart 19 show that in 2023 the upper and lower extreme scenarios are around R$ 77 billion above or below the central government's central scenario (R$ 3,5 billion). For the years 2024 and 2025, the same analysis indicates a margin for the extreme scenarios of R$ 131 billion and R$ 172 billion, respectively. Due to the continued recovery of tax collection in 2022, the stochastic curves now estimate a 6% probability of reaching the primary surplus in 2023 and a 54% probability for 2024.

2.4.4 Spending Cap

Instituted by Constitutional Amendment no. 95 (art. 106 to 114 of the Transitory Constitutional Dispositions Act - ADCT), the Spending Cap was established as a limit for a set of primary expenditures of each power or autonomous body during twenty financial years. According to the rule in force, this limit is corrected annually by the inflation variation measured by the Broad National Consumer Price Index (IPCA), observed in the previous year. Thus, to determine the various possible trajectories of the Spending Cap, the inflation variation is the only explanatory variable used in this exercise. As already pointed out in Section 2.4.2, the assumptions for total expenditures subject to the cap used in this exercise consider the correction of the minimum wage to maintain its purchasing power, no readjustment for personnel, maintenance of the nominal expenditure with Brazil Aid until 2026 and growth of expenditures with Judicial Sentences at a pace compatible with Constitutional Amendments 113/2021 and 114/2021.

Expenditures subject to the Cap make up the largest part of primary expenditure and are affected not only by economic variables (inflation, GDP, minimum wage), but also by demographic variables, such as population aging, a process that has been observed significantly in the country. In addition, more than 90% of the expenditure is mandatory by constitutional or legal determination. Thus, if no measures are taken to control the growth of this category of expenditures, the Expenditure Cap will impose a continuous flattening of discretionary spending, essentially costing and investments.

Chart 20 - Spectrum of Alternative Scenarios for the Expending Cap
Data in: R$ billion
Source and Elaboration: STN/SETO/ME



In this context, the following exercise presents the range of the most probable trajectories for the sum of expenditures subject to the Spending Cap and for the Spending Cap itself, based on a central scenario developed with the assumptions already mentioned in Section 2.4.2 and according to stochastic shocks applied on the macroeconomic scenario. Moreover, this exercise does not contemplate the creation of new expenditures. In Chart 20 the blue and red solid lines represent, respectively, the central projections for the Expenditure Cap and for total expenditures subject to the Cap. The blue shaded area represents the uncertainty regarding the IPCA, which corrects the Spending Cap, while the red shaded area represents the uncertainty regarding the expenditure indexing parameters (minimum wage, INPC, labor market, etc.). The more overlapping the two shaded areas are, the smaller the gap between the expenditures subject to the Spending Cap and the limit imposed by this constitutional rule. Therefore, there is a possibility of compliance with the Expenditure Cap in most of the trajectories. However, the probability of not complying with the rule increases over the years due to the accumulation of shocks. Thus, there is a risk of non-compliance with the spending cap if control over the creation of new expenditures is not maintained.

2.4.5 Public Debt

On Chart 21 and in Chart 22 show the stochastic results of the GGGD and NPSD simulations. The base case trajectories of these indicators are very close to those of the medians of the distributions and consist of the solid line in the respective Charts.

In the base case scenario the GGGD is expected to reach 76.2% in 2022, reaching 77.2% of GDP in 2025, as we saw earlier. The Chart 21 shows the confidence interval for the possible trajectories of the GGGD/GDP in face of stochastic shocks in the GDP and in the primary fiscal result over time, keeping the other variables constant, including interest rates. The upper limit of the Chart indicates less favorable scenarios, which would be reached, for example, in the absence of reforms contributing to fiscal consolidation and resumption of sustained economic growth. On the other hand, the Chart shows scenarios in which there would be a reduction in public debt, mainly through improved fiscal results and greater dynamism in economic activity. Similar behavior is observed in Chart 22 for the NPSD.

Chart 21 - Stochastic Scenarios - GGGD
Data in: % of GDP
Source and Elaboration: Realized, BCB. Projections, STN/SETO/ME

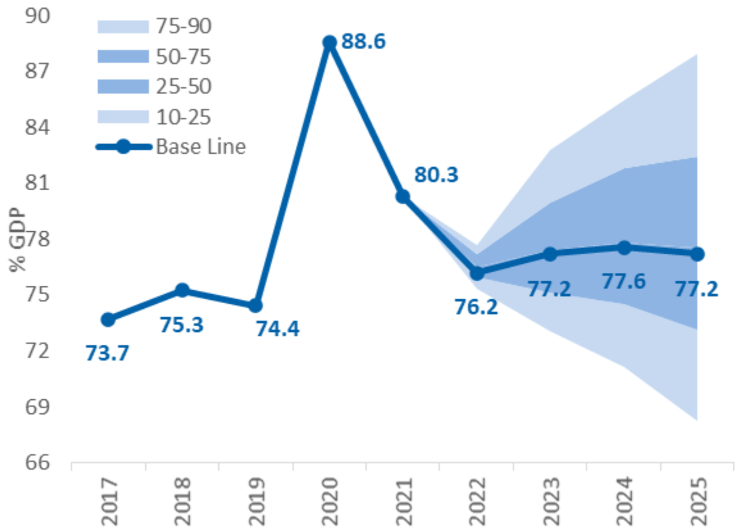


Chart 22 - Stochastic Scenarios - NPSD
Data in: % of GDP
Source and Elaboration: Realized, BCB. Projections, STN/SETO/ME

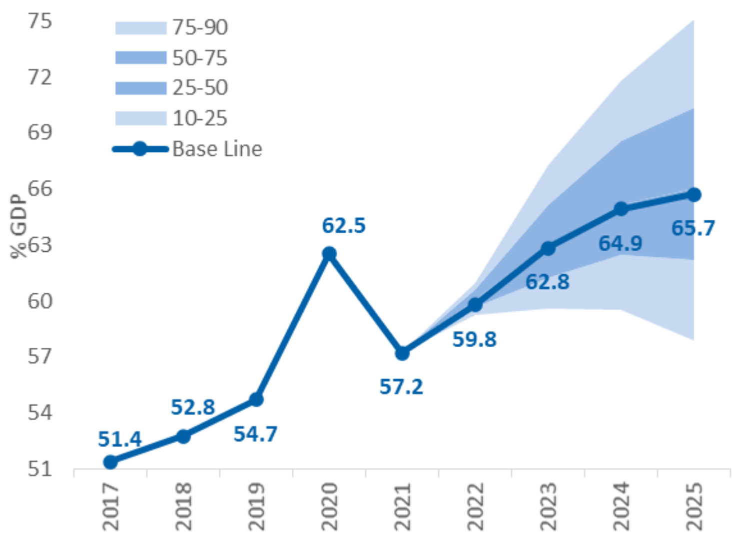
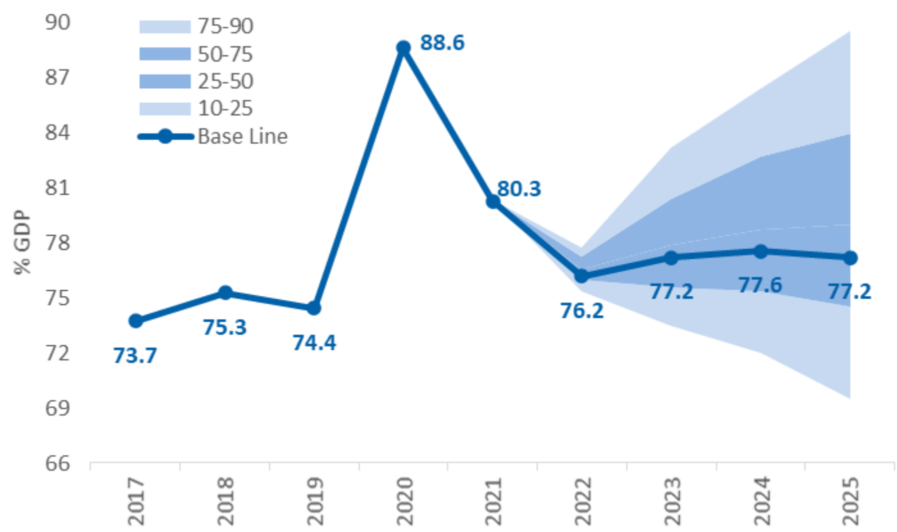


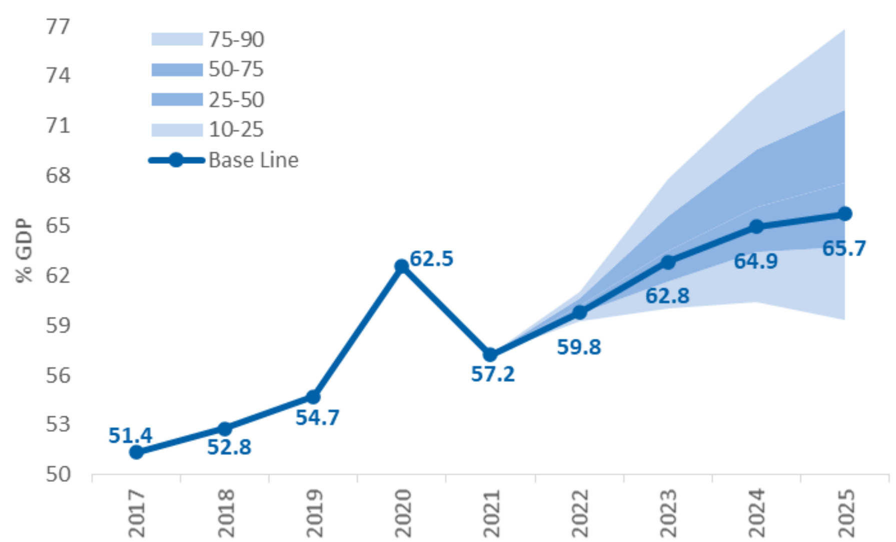
Chart 23- Asymmetric Stochastic Scenarios - GGGD
Data in: % of GDP
Source and Elaboration: Realized, BCB. Projections, STN/SETO/ME



Complementarily, the following are presented in Chart 23 and Chart 24, *fan charts of* the asymmetric GGGD and NPSD, as a result of a Selic rate stressed by 100 basis points as of December 2022. This is a *downside risk* assessment exercise. In a context of a stressed Selic rate, the risk of the GGGD and NPSD exceeding the projections of the base scenario at the end of 2025 becomes greater in the presence of shocks unfavorable to activity and in the absence of fiscal consolidation.

In summary, higher interest rates require a substantially greater fiscal effort to keep the debt at safe levels. It has become even more urgent to approve structural reforms that will contribute to the reduction of indebtedness in the medium term, a fundamental condition for fiscal consolidation and sustainable economic growth.

Chart 24- Asymmetric Stochastic Scenarios - NPSD
Data in: % of GDP
Source and Elaboration: Realized, BCB. Projections, STN/SETO/ME



3 Specific Fiscal Risks

Specific risks are related to events that occur irregularly and have diverse origins, usually associated with government programs, contingent liabilities and the public sector's balance sheet (asset or liability values). Its analysis involves the qualitative evaluation of the particularities of each theme, seeking to identify the materialization of the risk in the short term, as well as to measure its cost.

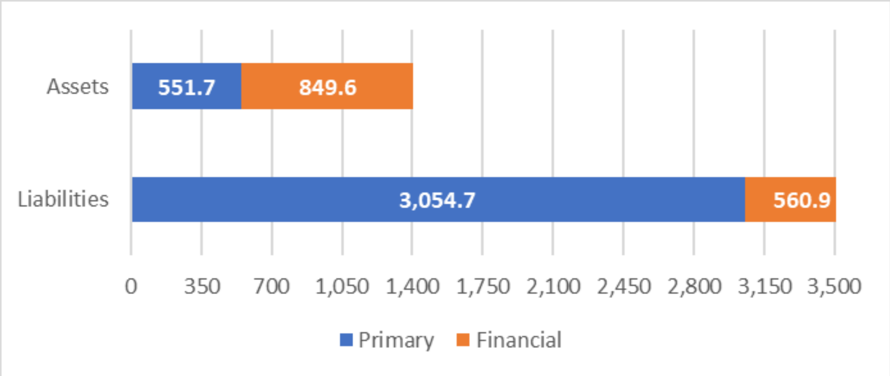
Table 9 - Fiscal Risk Factors Related to Liabilities and Assets
Data in: R$ million
Elaboration: STN/SETO/ME

Fiscal Risks	Impact Primary (P) Financial (F)	Stock		Percentage of Grand Total	Estimated Flows	
		2021	2022		2022	2023
Risks Related to Liabilities		**2,863,342.3**	**3,534,470.3**	**71.6%**	**95,454.7**	**112,141.7**
Contingent liabilities under adjustment [1]	F	112,257.9	31,220.7	0.6%	25,163.7	31,904.9
Federal Government guarantees [2]	F	337,590.0	310,113.0	6.3%	9,809.8	10,753.5
Liabilities of Federative Entities [3]	F	113,400.0	138,400.0	2.8%	n.a.	n.a.
Export Credit Insurance [5]	P	38,390.1	36,277.9	0.7%	1,281.2	1,666.0
Judicial claims - Probable risk [8]	P	872,000.0	528,500.0	10.7%	57,904.0	66,403.4
Judicial claims - possible risk [8]	P	1,260,400.0	2,367,000.0	48.0%		
Liabilities of the Constitutional Funds [8]	P	16,499.3	15,461.6	0.3%	1,296.0	1,414.0
FIES [8]	P	112,805.0	107,497.1	2.2%	n.a.	n.a.
Risks Related to Assets [4]		**1,375,312.8**	**1,401,362.7**	**28.4%**	**149,770.8**	**137,447.2**
Assets Related to the Federative Entities [4]	F	638,186.0	666,100.0	13.5%	6,600.0	37,200.0
Assets Not Related to the Federative Entities [2]	F	194,024.5	169,322.0	3.4%	46,609.4	24,132.8
Dividends and interest on capital [6]	P	n.a.	n.a.	n.a.	80,461.30	41,355.30
Active Debt [7]	P	523,882.3	551,722.7	11.2%	13,819.1	29,961.1
Claims of the BCB [4]	F	19,220.0	14,218.0	0.3%	2,281.0	4,798.0
Total Federal Government exposure		**4,238,655.1**	**4,935,833.0**	**100%**		

[1] Stock of 2022 corresponds to the provision in the Federal Government Balance Sheet of 2022.
[2] Stock of 2022 corresponds to the position on 8/31/2022.
[3] Refers to the outstanding stock of debts owed by the States. Year 2022, position as of 08/31/2022.
[4] Stock of 2022 corresponds to the position on 01/08/2022.
[5] Stock of 2022 corresponds to the position on 06/30/2022.
[6] Dividends: provided for in PLOA 2023 and Petrobras on 07/29/2022.
[7] Flow of DAU for 2022 corresponds to the expectation from July to December.
[8] Stock of 2022 corresponds to the position on 06/30/2022.

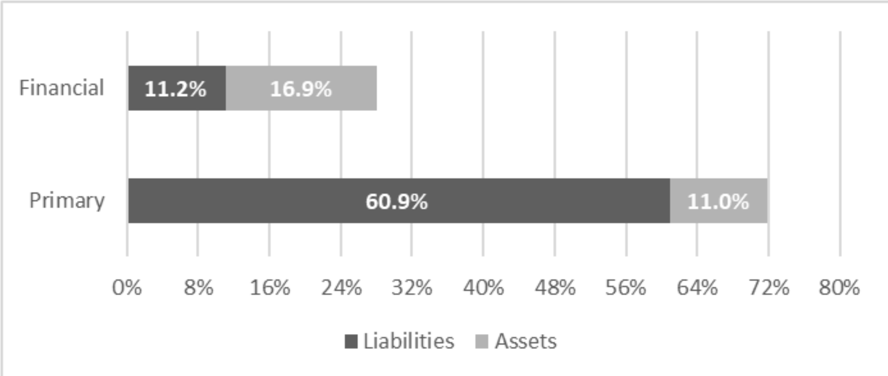
The Federal Government's exposure to fiscal risks in 2022 reached the amount of R$ 5 trillion, distributed in risks that can materialize either by not receiving revenues associated with assets, or by the increase in unforeseen expenditures related to the Federal Government's liabilities, with primary and financial impact, as detailed in Table 9. The Chart 25 and Chart 26 show, respectively, the composition and impacts of the specific risks.

Chart 25 - Composition of Specific Fiscal Risks
Data in: R$ billion
Elaboration: STN/SETO/ME



It is important to emphasize, however, that the listed fiscal risks have distinct thematic natures with great variety of types and degrees of impacts, in addition to presenting probabilities of occurrence varying between remote, possible and probable. In this way, the analyses resulting from the summary presented by Table 9 should take these factors into consideration so that the general view of the Federal Government's fiscal risks is not impaired.

Chart 26 - Impact of Specific Fiscal Risks
Data in: Percent
Elaboration: STN/SETO/ME



3.1 Contingent Liabilities

Contingent liabilities refer to possible new obligations whose confirmation depends on the occurrence of one or more future events, or whose probability of occurrence and magnitude depend on unforeseeable exogenous conditions. Also considered contingent liabilities are those obligations that arise from past events, but that are not yet recognized in the body of the financial statements because the need for settlement is unlikely or because the amount cannot yet be measured with sufficient certainty.

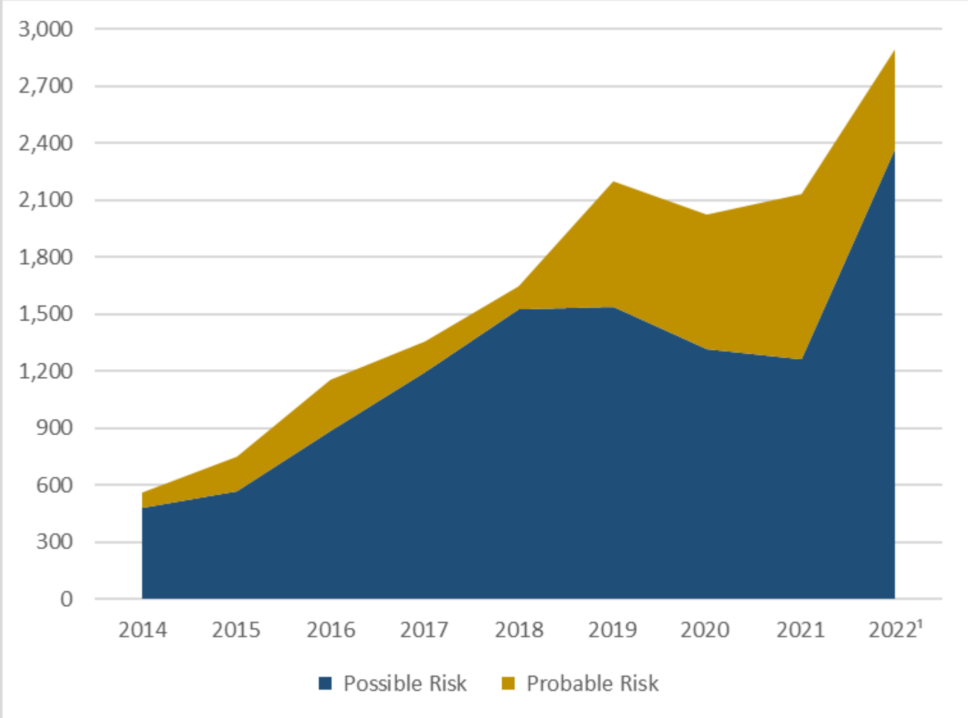
The lawsuits against the Federal Government, its independent agencies or foundations, are classified according to the probability of loss, and may be probable risk, possible risk, or remote risk, according to criteria defined by the Office of the General Counsel for the Federal Government (AGU) through Ordinance AGU no. 40/2015, as amended by Ordinances AGU no. 318/2018 and AGU no. 514/2019.

3.1.1 Judicial claims

The Judicial Claims against the Federal Government are defined as fiscal risk since they can result in judicial decisions against the Treasury.

The lawsuits of possible risk, considered as contingent liabilities, are not provisioned and, therefore, do not impact the Federal Government's Balance Sheet. Probable-risk lawsuits, on the other hand, in which the Federal Government is directly involved as a defendant, are accounted for by the National Treasury in provision accounts for judicial losses, affecting the Federal Government's Balance Sheet, since it is probable that resources will be lost in the future and it is possible to estimate their amount with sufficient certainty. As of this year, the actions classified as probable risk started to be detailed in the Annex of Fiscal Risks of the LDO 2023, with the purpose of improving the availability of information to the public.

Chart 27 - Evolution of the Outstanding Judicial Claims against the Federal Government
Data in: R$ billion
Source: AGU, SEST/ME and BCB. Elaboration: STN/SETO/ME.



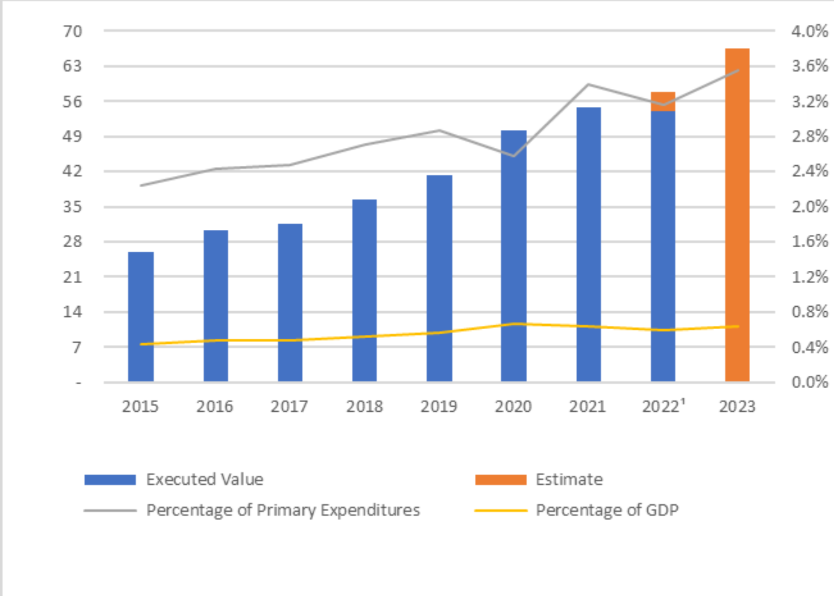
[1] Position in June 2022

From 2015 to 2022[13] , the claims against the Federal Government have been showing a significant growth, in terms of value. Historically, the probable-risk lawsuits show a greater rate of increase, especially as of 2019. In June 2022, the probable and possible risk claims totaled R$ 2.895,5 billion, as shown in Chart 27 where 81.7% (R$ 2.367,0 billion) refer to possible risk actions and 18,3% (R$ 528,5 billion) to actions classified as probable risk of loss, according to information provided by General Attorney's Office (AGU)[14] , Secretariat for Coordination and Governance of State-Owned Enterprises (SEST) and the Central Bank of Brazil (BCB).

Since last year, and for the most part, the increase in the amount of possible risk actions was basically due to three major actions: a) updating the estimate of the impact of a lawsuit over PIS/COFINS on imports; b) the application of the rule on the benefit wage prior to the publication of Law 9876/1999 (lifetime review); and c) inclusion of the Municipal Participation Fund and State Participation Fund actions.

Besides the growth in the stock of lawsuits that represent fiscal risk to the Federal Government, there has been an increase in the materialization of this type of risk, as shown in Chart 28. While the average of payments related to judicial actions, between the years 2014 and 2022, is R$ 38,6 billion, for the year 2023, in nominal terms, it is estimated to reach R$ 66,4 billion (an increase of more than 70% in relation to the average), representing more than 3,5% of the primary expenditures, considering the updated appropriation up to October 2022. Along the same line, the payment with judicial actions, as a portion of the GDP, has been reaching increasingly significant levels. During 2016, percentages of around 0,5% of GDP were observed with this type of expenditure, reaching 0,7% of GDP in 2020.

Chart 28 - Evolution of expenditure with lawsuits.
Data in: R$ billion
Source: STN/SETO/ME, SPE/ME and PLOA 2023. Prepared by: STN/SETO/ME.



[1] Amount executed until October 2022 and estimated from October to December 2022.

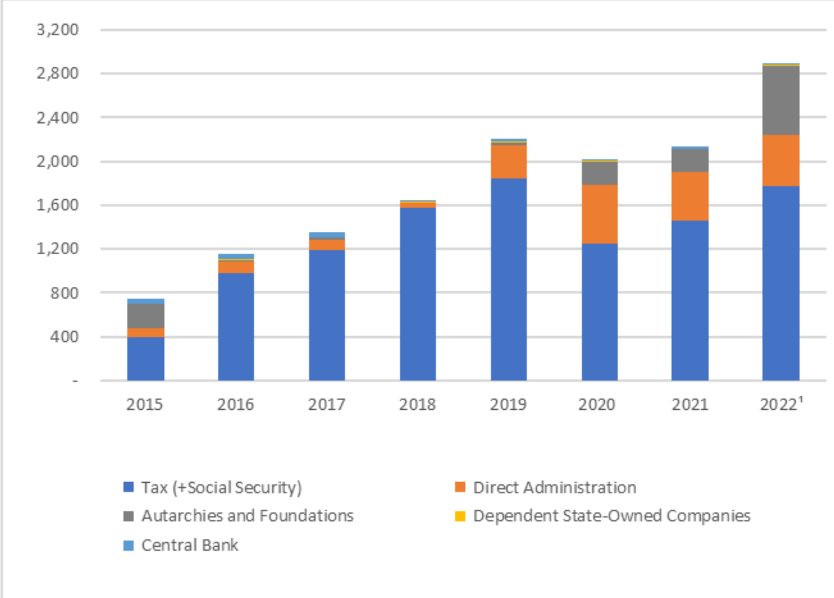
Article 107-A of the Transitory Constitutional Provisions Act of the Federal Constitution:
Until the end of 2026, it is established, for each financial year, a limit for allocation in the budget proposal of expenses with payments in view of the judicial decision referred to in art. 100 of the Federal Constitution, equivalent to the value of the expense paid in the year 2016, including the remaining paid figures, corrected in the form of § 1 of art. 107 of this ADCT, and the fiscal space resulting from the difference between the value of the issued court-ordered debts and the respective limit shall be destined to the program provided for in the sole paragraph of art. 6 and to social security, under the terms of art. 194, both of the Federal Constitution, to be calculated as follows:
I - in the year 2022, the fiscal space resulting from the difference between the value of the court ordered debt issued and the limit established in the caption of this article must be destined to the program foreseen in the sole paragraph of art. 6 and to social security, under the terms of art. 194, both of the Federal Constitution;
II - for the year 2023, by the difference between the total number of writs of payment issued between July 2, 2021 and April 2, 2022, and the limit referred to in the ***head of*** *this article and valid for the year 2023; and*
III - in the years 2024 to 2026, by the difference between the total number of writs of payment issued between April 3 of the two previous years and April 2 of the year prior to the year and the limit referred to in the ***head of*** *this*

[13] Values of the lawsuits updated until June 2022.

[14] Updating of the lawsuits with a position as of 6/30/2022, based on Technical Note #002/2022/CGPG-DGE/DGE/AGU, of 7/29/2022.

As shown in Chart 29, which considers the lawsuits of probable and possible risks, the most significant values of lawsuits against the Federal Government comes from tax lawsuits. As of 2015, there is a marked expansion in the value of such actions, reaching R$ 1.842,0 billion in 2019 and R$ 1.772,6 billion in 2020, representing about 61.0% of all actions classified as possible and probable fiscal risk.

Chart 29 - Judicial claims against the Federal Government by nature or group (possible and probable risk)
Data in: R$ billion
Source: AGU, SEST/ME and BCB. Elaboration: STN/SETO/ME



[1] Position in June 2022

Considering that the effect of court sentences directly affects the primary result, either by increasing expenditures or the loss of revenue, its upward trajectory reveals itself as an important element threatening the Brazilian fiscal balance, directly impacting the main fiscal rules, such as the spending cap and the primary result target itself.

Thus, important changes in the New Fiscal Regime were the Constitutional Amendments no. 113, of December 8, 2021, and no. 114, of December 16, 2021, which brought significant changes to the system of payment of court-ordered debts (precatórios). The rules establish, until 2026[15] , a limit for allocation in the budget proposal of each fiscal year, of expenditures related to the payment of judicial sentences referred to in article 100 of the Federal Constitution. Such limit was defined based on the amount of the expenditures paid by virtue of court sentences in the fiscal year of 2016, including the rests payable, and with a forecast of correction by the variation of the Broad National Consumer Price Index (IPCA), accumulated in twelve months, from January to December of the previous fiscal year to which the budget law refers, under the terms of item II, paragraph 1 of article 107 of the Act of Transitory Constitutional Provisions of the Federal Constitution.

According to what is exposed in this section and in the Fiscal Risks Annex of the LDO 2023, the expenditures related to judicial sentences and court-ordered debts (precatórios) have been presenting a significant growth in the last years

[15] The deadline established in art. 107-A of the Transitory Constitutional Dispositions Act included by Constitutional Amendment no. 114/21.

(Table 11), accounting for a considerable share of the Central Government's primary expenditures. Nevertheless, given the new system of payment of court-ordered debts (precatórios) established by the aforementioned ECs, the amounts forecast for payment of judicial sentences in 2022 consider that R$ 22,31 billion will be postponed to 2023. On the other hand, the estimates for judicial sentences in the PLOA 2023 consider that R$ 51,16 billion will be postponed to 2024.

With respect to the projections[16] for this type of expenditure, the studies indicate that the expenditures with payments of judicial sentences and court-ordered debts (precatórios) (cost and capital) tend to pressure the level of mandatory expenditures, as soon as the new regime of payment of court-ordered debts (precatórios) ends, changing the behavior of the mandatory expenditure projection curve. In this context, it is important to foster the debate about how the future rules for the payment of lawsuits may act towards the maintenance of fiscal balance, at the end of the current regime in 2026.

[16] Fiscal Projections Report of the National Treasury Secretariat, June 2022, available at: https://www.tesourotransparente.gov.br/publicacoes/relatorio-de-projecoes-fiscais/2022/20

Table 11 - Probable and possible risk lawsuits
Data in: R$ billion
Source: AGU, SEST/ME and BCB. Elaboration: STN/SETO/ME

Judicial Claims	Base Year								
	2014	2015	2016	2017	2018	2019	2020	2021	2022[1]
Possible Risk	**478.7**	**565.1**	**884.0**	**1,195.1**	**1,528.0**	**1,540.1**	**1,316.1**	**1,260.4**	**2,367.0**
Tax (+ Social Security)	345.1	327.0	828.3	1,139.5	1,512.8	1,342.1	862.9	842.6	1,447.9
Others	133.7	238.1	55.6	55.6	15.2	198.0	453.2	417.8	919.1
Direct Administration	2.1	1.0	4.0	3.1	3.7	171.6	230.6	209.3	276.6
Autarchies and Foundations	60.8	194.7	8.3	8.3	3.5	16.0	211.6	198.9	631.0
Dependent SOEs	2.1	2.0	2.0	2.1	2.0	4.0	4.9	3.7	3.9
Central Bank	68.7	40.4	41.3	42.1	6.0	6.4	6.1	5.9	7.6
Probable Risk [2]	**81.2**	**181.7**	**269.7**	**162.6**	**117.6**	**659.7**	**707.2**	**871.9**	**528.5**
Tax (+ Social Security)	17.7	65.8	152.5	56.3	60.3	500.0	384.7	614.2	324.7
Others	63.5	116.0	117.2	106.3	57.3	159.8	322.5	257.7	203.8
Direct Administration	56.5	84.5	98.9	87.9	42.7	136.9	306.3	240.5	188.1
Autarchies and Foundations	-	22.0	8.5	7.0	2.5	8.2	1.0	5.2	2.5
Dependent SOEs	2.6	3.5	2.9	2.7	3.1	5.4	5.4	3.0	3.5
Central Bank	4.4	6.0	6.9	8.7	9.0	9.3	9.8	9.1	9.7
Total	**559.9**	**746.8**	**1,153.7**	**1,357.7**	**1,645.6**	**2,199.8**	**2,023.3**	**2,132.3**	**2,895.5**

[1] Position on 6/30/2022.
[2] For purposes of alignment with the General Balance Sheet of the Federal Government - BGU 2021 and 2022, Explanatory Notes 66 and 18 "Fiscal Risks with Judicial Claims and Court-Ordered Debts", exceptionally the topic "Cofins /PIS. Calculation basis, inclusion of ICMS", with an updated value of R$ 236.8 billion, which corresponds to a lawsuit with a decision unfavorable to the Federal Government with a final and unappealable decision in 2021

Table 10 -Judicial Expenditure in relation to Primary Expenditure
Data in: R$ billion
Source: STN/SETO/ME, SPE/ME and PLOA 2023. Prepared by: STN/SETO/ME

Expenditures	2014	2015	2016	2017	2018	2019	2020	2021	2022[2]	2023[3]
Judicial Actions (Amounts Paid) [1]	18.8	26.1	30.3	31.7	36.5	41.3	50.3	54.9	57.9	66.4
Total Primary Expenditure	1,046.5	1,164.5	1,249.4	1,279.0	1,351.8	1,441.8	1,947.2	1,613.9	1,833.7	1.868.2
Percent of Total Primary Expenditure [4]	1.8%	2.2%	2.4%	2.5%	2.7%	2.9%	2.6%	3.4%	3.2%	3.5%

[1] Amounts paid refer to the total payments of the judicial sentences (Fiscal Year and RAP).
[2] Estimated Amount Paid: Updated Allocation refers to the updated allocation of expenses with judicial sentences and court-ordered debts (October 2022). Primary Expenditure Estimate: Primary Revenue and Expenditure Assessment Report - 3rd Bimester 2022.
[3] Estimated Amount Paid and Primary Expenditure: PLOA 2023.
[4] Percentage of expenditure on legal actions in relation to total primary expenditure.

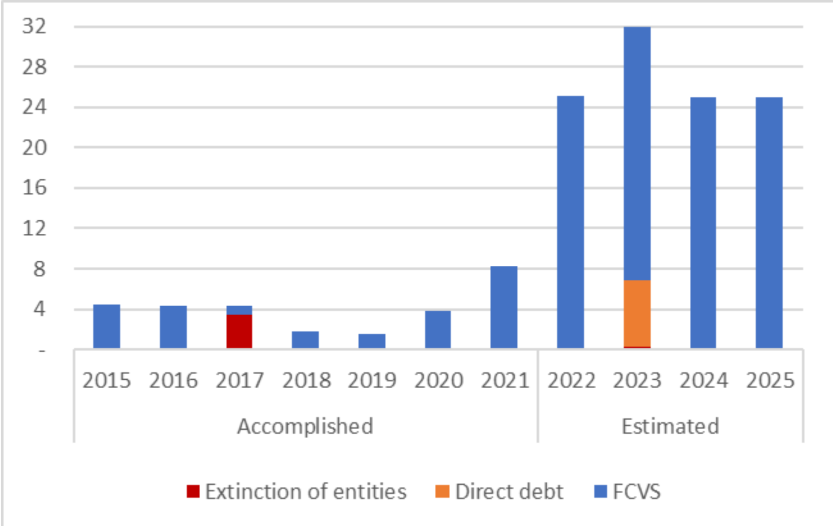
More detailed information about the fiscal risk of legal claims against the Federal Government can be obtained in the Fiscal Risks Annex and its updates, at the following electronic address:
https://www.gov.br/tesouronacional/pt-br/estatisticas-fiscais-e-planejamento/planejamento-fiscal/riscos-fiscais

3.1.2 *Contingent Liabilities being recognized by the STN*

Contingent liabilities of the Federal Government in the process of being settled within the scope of the STN can be classified as: Debts Resulting from the Salary Variations Compensation Fund (FCVS); Direct Debts of the Federal Government; and Debts Resulting from the Extinction/Dissolution of Federal Administration Entities. Exceptions excepted, payments of the mentioned liabilities to creditors are made through Federal Public Debt securities, a modality called securitization, with financial impact.

The Federal Government's liabilities arising from FCVS comprise the largest contingent liabilities of the Federal Government under regularization. It should be also noted that, despite the interruption in the flow of FCVS novations between 2012 and 2015[17] , and after the publication of Law 13.932, of December 11, 2019, and, subsequently, of Law 14.257, of December 1, 2021 (which amended Law 10.150/2000), there is the prospect of an increase in the flow of novation proceedings, starting in 2022. The Federal Government's liabilities arising from the FCVS have been progressively settled through the signing of successive contracts between the Federal Government and the financial agents (or their assignees, or the FGTS). Since 1998, 509 novation or assumption contracts have been signed, totaling R$ 205,0 billion in December/21 values. The contracts establish the payment through long-term securities called CVS, maturing on January 1, 2027, but which have been paying monthly interest installments since January 1, 2005, and monthly installments of principal since January 1, 2009.

Chart 30 - Regularization of Contingent Liabilities
Data in: R$ billion
Source and Elaboration: STN/ME



The estimate of the stock to be paid results from: (i) the calculation of the balances in contracts already submitted for qualification (by the agents to Caixa); and (ii) periodic actuarial evaluations made by a company hired by Caixa, which includes the portion of contracts not submitted for qualification. The Chart 30 shows the evolution of settled liabilities from 2015 to 2021 and the estimate from 2022 to 2025.

[17] The interruption of the novations of the liability in question occurred due to the reservations and/or notes raised by the Federal Internal Control Secretariat - SFC/CGU, with its return after adjustments were made to the systems and operational procedures of the Administrator/Caixa and changes were made to Law 10,150/2000, as of 2016.

<u>Debts Resulting from Extinction/Dissolution of Entities</u>: Commitments assumed by the Federal Government due to the extinguishment/dissolution of autarchies/companies.
<u>Direct Debts of the Federal Government</u>: These originate from a variety of events. Two of them stand out: (i) attribution to the Federal Government of commitments arising from investments made in the extinct territories; and (ii) legal provisions authorizing federal financial institutions to provide financial assistance or participate in some public policy with the commitment of later reimbursement by the Federal Government.
<u>FCVS</u>: Public Fund of an accounting and financial nature, which has the objective of guaranteeing the term limit for amortizing the debt of borrowers resulting from housing financing, through the assumption of the rights and obligations of the extinct Housing Insurance of the SFH. It is managed by Caixa Econômica Federal.

With regard to Direct Debts, it is important to inform that their regularization is the responsibility of the commission foreseen in article 3 of Decree nº 10.802/2021, which regulates the recognition and regularization of obligations on the part of the Federal Government. And, although the forecast for regularization for 2022, estimated in last year's Federal Government Fiscal Risks Report, was R$ 5.4 billion[18] , the decision of the mentioned commission was to recognize only a debt of R$ 106.6 million, which, in turn, was considered time-barred and, therefore, does not constitute a financial/budgetary impact for the Federal Government in 2022.

The stock of Contingent Liabilities in the Accreditation Phase provisioned in the BGU, for the year 2022, is R$ 31.2 billion[19] , about 80% of which is related to the FCVS.

[18] The estimate for the regularization of Direct Debt, informed in the RRFU 2021, referred to the Federal Government's contingent liabilities with CAIXA pending full accreditation, with the possibility of progress in the respective administrative regularization processes, for the most part.

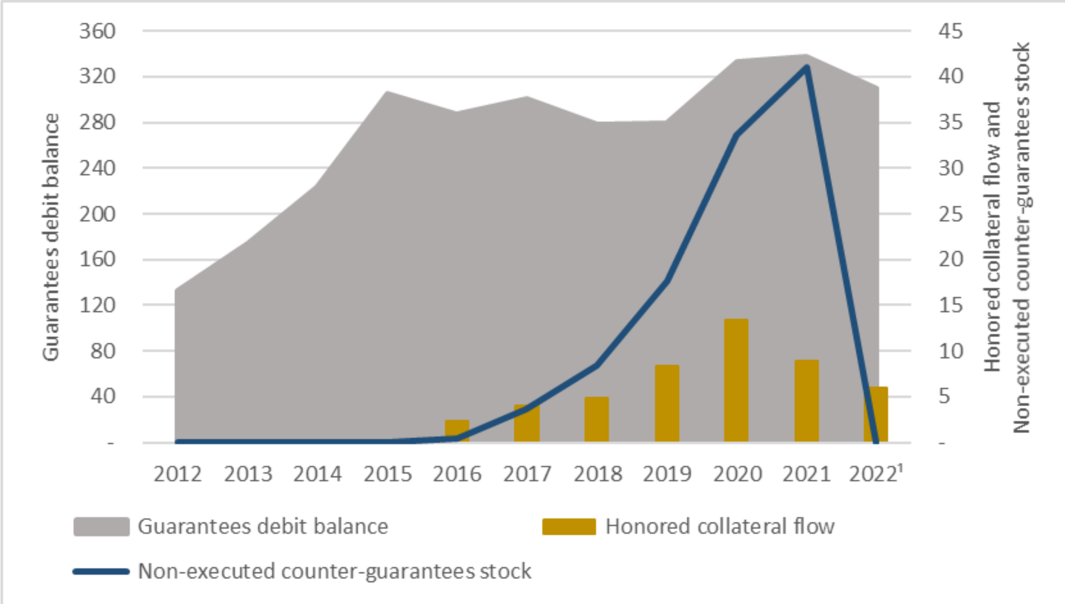
[19] Amount provisioned in the BGU and estimated in the 2022 Annual Budget Law.

3.1.3 Guarantees

3.1.3.1 Federal Guarantees and Counter-guarantees - Credit Operations

Within the STN, the Guarantees System comprises the granting, control and enforcement of guarantees and counter-guarantees. Thus, the STN monitors any delays in payment of guaranteed contracts, setting deadlines for regularization of outstanding payments and alerting debtors to the sanctions, penalties and consequences provided for in the contracts and in the relevant legislation.

Chart 31 - Evolution of Guarantees for Credit Operations
Data in: R$ billion
Source and Elaboration: STN (RGF)



[1] *Position in August 2022*

As provided in item IV of art. 29 and in art. 40 of Complementary Law 101/2000 (Fiscal Responsibility Law - LRF), the Federal Government may grant guarantees in internal or external credit operations, this mechanism being defined as the commitment to comply with a financial or contractual obligation undertaken by a federal entity or entity linked to it.

If the borrower does not make the payment on the established deadlines, the Federal Government, as guarantor, settles the debt with the creditor, and then activates the contractually foreseen counter-guarantees to recover the amounts spent, including, besides the original amount due, default interest, fines and other charges eventually foreseen in the financing contracts.

The Chart 31 shows the evolution of federal guarantees for credit operations from 2012 to 2022 (August position). The debit balance, which represents the stock of all existing guarantee contracts, shows an upward trajectory until 2021, with an 8% decrease in 2022 (August position), when it reached the R$ 310 billion mark[20] . It is important to emphasize that the increase in the stock observed from 2019 to 2022 relates mainly to the exchange rate devaluation.

[20] Information from the Fiscal Management Report of the Federal Executive Branch - 2nd Quarter 2022

The flow of honored guarantees shows the annual expenditure of the Federal Government honoring unpaid debts of federal entities, with financial impact. After 11 years (2005 to 2015) without the need to honor guarantees granted, in 2016 the STN returned to honor payments, accumulating an amount of R$ 47,9 billion from 2016 to August/2022. In 2021, honors were R$ 8,9 billion. In 2022, through August, the amount honored was R$ 6,0 billion. The STN forecast is that this amount will close the year at R$ 9,8 billion.

Highlighted point of Chart 31 was the growing stock of counter-guarantees not executed by the Federal Government, which characterized the materialization of fiscal risk in guarantee operations, starting from R$ 3,6 billion in 2017 to a total of R$ 40,9 billion in 2021. With the signing of the contracts related to art. 9-A of LC nº 159/17 and art. 23 of LC nº 178/21 the entire stock of guarantees to be recovered, including under the Fiscal Recovery Regime, was zeroed in 2022, since the entire balance was renegotiated.

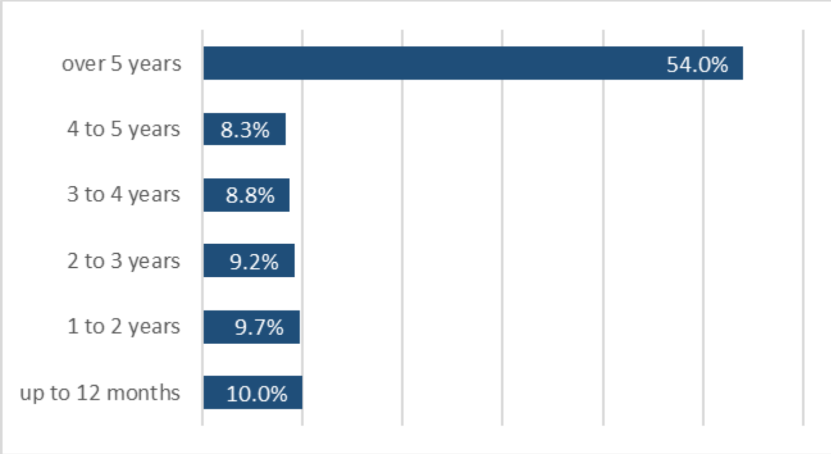
The write-off of the amounts of guarantees to be recovered is concomitant to the incorporation of such amounts (recalculated according to LC no. 178/21) to the accounts of the contracts mentioned in articles 9-A and 23, that is, the expectation of receiving these amounts persists, however, these amounts are now part of the debt managed by the Federal Government and, therefore, are accounted for in their own accounts.

The outstanding balance of the guarantees increases due to new disbursements in existing contracts, contracting of new credit operations with disbursements, indexation of the outstanding balance (in the domestic guaranteed debt) and the increase in the exchange rates (in the foreign guaranteed debt). On the other hand, the amortizations and the appreciation of the real against foreign currencies reduce the outstanding balance.

Regarding provisions and reserves, the amounts guaranteed by the Federal Government to the states that adhered to the RRF are accounted for by the STN as a provision, since the adhesion of the entity creates the expectation of default on its maturing obligations. In addition, the STN requests, on an annual basis, a specific and sufficient budget appropriation for the payment of the honors estimated for the following year.

Finally, the Chart 32 shows the percentage of guarantees maturing by time period, which totals R$ 396 billion (outstanding balance plus accrued interest), illustrating the degree of the Federal Government's exposure vis-à-vis the outstanding balance of its guarantees.

Chart 32 - Percentage Falling Due of Collateral for Credit Operations
Source: STN (RQG)



Every four months, the National Treasury publishes the Guaranteed Credit Operations Report (RQG). The editions of this report can be accessed at the following electronic address: https://www.tesourotransparente.gov.br/publicacoes/relatorio-quadrimestral-de-operacoes-de-credito-garantidas-rqg/2020/28

3.1.3.2 Private Guarantee Funds with Federal Government Participation

The Guaranteeing Funds are private in nature and are subject to their own rights and obligations. The assets of the Funds, separate from the assets of the quota holders, are formed by the contributions of goods and rights made by the quota holders, through the payment of quotas, and by the income obtained with their administration. Besides this, the fund receives income relative to the collection of fees and commissions from the beneficiaries of the guarantees, which complement the fund's income.

On the other hand, the Funds have expenditures related to their operation, including costs for guarantee management, contracted services to make their operation viable, as well as the administrator's remuneration. In the case of honoring guarantees, these Funds are called to execute the guarantees granted, whose values negatively impact their equity, limited, in the case of the Federal Government, to the value of the paid-in quotas.

The Federal Government can be a single shareholder or participate in the funds together with other shareholders. The participation is authorized by specific law, which defines the purpose of the fund and establishes its operating parameters. The funds are normally managed by a federal financial institution or public company, which represents it judicially and extra-judicially, receiving remuneration for its services. Besides this, the governance model of the funds counts on collegiate participation committees, instituted by an act of the Executive Branch, which have the purpose of subsidizing the Federal Government's vote in the Shareholders' Meetings.

Currently, the Federal Government participates as a quota holder in the following private guarantee funds:

a) Guarantee Fund for Shipbuilding - FGCN: its purpose is to guarantee the credit risk of financing operations for the construction or production of vessels and the risk arising from the performance of Brazilian shipyards. Law 11.786, of September 25, 2008, authorized the Federal Government's participation in this fund.

b) Guarantee Fund for Popular Housing - FGHab: aims to provide guarantees to housing financing contracts signed within the scope of the “Minha Casa Minha Vida Program” (PMCMV), when the events of Death and Permanent Disability (MIP), Physical Damage to the Property (DFI) and Temporary Reduction of Payment Capacity (RTCP)/unemployment occur. The Federal Government's participation in the FGHab was authorized by Law 11.977, of July 7, 2009. The Law originally established a limit of 2 million housing loans contracted exclusively under the PMCMV, which was reached in 2016. In 2022, with the edition of Provisional Measure 1.114/2022, converted into Law 14.462/2022, the fund's objective was extended to guarantee part of the risk in operations contracted as of June 1st, 2022, in the scope of the federal government's housing programs.

c) Guarantee Fund for Educational Credit Operations - FGEDUC: its purpose is to guarantee the risk in educational credit operations, in the scope of the Higher Education Student Financing Fund (Fies), for operations contracted until the end of 2017. Law number 12,087, of November 11, 2009, authorized the Federal Government's participation in this fund.

For the Federal Government, the main objective of setting up a fund is to guarantee the risk for operations that involve the financing of specific sectors of the Brazilian economy, such as shipping and housing.
Thus, since 2009, with the promotion of guarantees for credit operations, the Guarantee Funds have acted as a risk mitigation and feasibility instrument for public programs and policies. The guarantees offered complement the requirements of the creditor financial agent and are intended to encourage the participation of the private sector and, consequently, promote the economic stimulus to specific sectors.

d) <u>Guarantee Fund of the Student Financing Fund - FG-Fies</u>: its purpose is to guarantee the financing credit to students under Fies for operations contracted from the first semester of 2018. The Federal Government's participation in this fund was authorized by Law No. 13,530, of December 7, 2017.
e) <u>Guarantee Fund for Investments - FGI</u>: its purpose is to guarantee financing for micro, small and medium enterprises for the acquisition of capital goods. The Federal Government's participation in this fund was authorized by Law 12,087, of November 11, 2009.
f) <u>Guarantee Fund for Operations - FGO</u>: aims to provide guarantees for financing for micro, small and medium enterprises for working capital and investments. The Federal Government's participation in this fund was authorized by Law 12.087, of November 11, 2009.

In addition to the Funds mentioned above, the Federal Government has participated as a shareholder of the Guarantee Fund for Public-Private Partnerships - FGP, aimed at granting guarantees to PPPs. This Fund, however, was terminated in 2017 and replaced by the FGIE, which had a similar purpose. Subsequently, Law no. 14.227, of October 21, 2021, expanded the scope of the FGIE, which was renamed FDIRS (Development Fund for Sustainable Regional Infrastructure) and ceased to act exclusively as a guarantee fund. Its main objective is now the structuring and development of concession projects and public-private partnerships of the Federal Government, the States, the Federal District and the Municipalities, operating from the financing of technical services for modeling projects to the arrangement of guarantees and the necessary sources of funds, through partnerships with the private sector.

Table 12 - Guarantee Funds with Federal Government Participation
Data in: R$ million Position: 06/2022

Guarantor Fund	Federal Participation	Shareholders' Equity
FGI	9,547.9	17,845.3
Traditional FGI	454.1	1,002.6
FGI Peac	9,093.8	16,842.7
FGO	39,172.1	42,785.7
Original FGO	914.1	4,527.7
Pronampe FGO	38,258.0	38,258.0
FGEDUC	7,437.3	7,437.3
FG-Fies	2,039.2	3,991.9
FGCN	57.6	58.6
FGHab	1,736.7	2,892.1
Total	**59,990.8**	**75,010.9**

As can be seen in Table 12as of the end of June 2022, the Federal Government held R$ 59,99 billion in quotas in the private guarantee funds listed above, a percentage equivalent to 78.66% of the funds' net worth. In relation to the last Federal Government Fiscal Risks Report, the values corresponding to the quotas of the Private Guarantee Funds with Federal Government participation showed an approximate drop of 7% (or R$ 5 billion), mainly due to the reduction in the FGI's assets.

Fiscal Risks

The role of the Federal Government through guarantee funds is a way to support economic agents, according to public policy decisions, but obtaining a more controlled exposure of the Federal Government to risks, when compared to a direct guarantee. In the case of funds with private participation, other agents interested in making the business viable can acquire part of the quotas, with the sharing of risks proportional to the participation of each agent in the fund. Thus, the fiscal risks related to the Federal Government's participation in private guarantee funds are associated to events that may decrease the funds' net worth and, consequently, reduce the value of the Federal Government's quotas.

Directly, there is a fiscal impact when there are contributions or redemptions of Federal funds, with the acquisition or sale of quotas of private guarantee funds, respectively with resources leaving or entering the Single Account. Indirectly, events of activation of guarantees granted generate the obligation of payment of honors by the funds and the consequent subrogation of credit rights on the defaulted party. If the credits are not recovered, there is a reduction in the funds' assets and, consequently, a permanent loss of federal resources in the form of a reduction in the value of the quota. In this sense, the amounts exposed to risk correspond to the values of the Federal Government's quotas in each fund. It is noteworthy, therefore, that when there is the payment of honors by private guarantee funds, there is no direct impact on the Federal Government's revenues or expenditures, since there is no inflow or outflow of resources in the Single Account, since only the resources of the private fund are being moved. However, these operations impact the Federal Government's assets, since they affect the value of its shares in these private funds, a situation that would harm the Federal Government's cash in an eventual redemption.

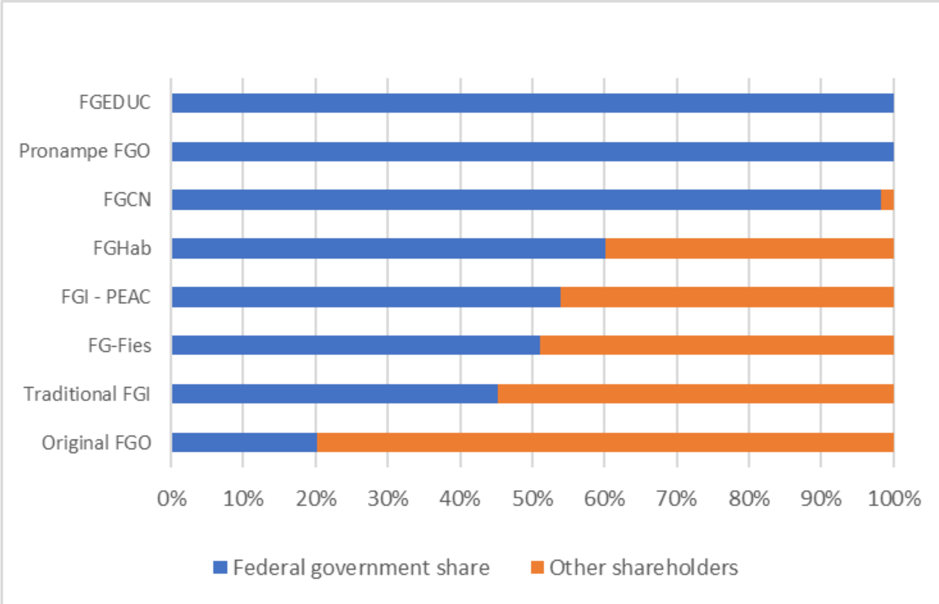
Chart 34 shows the participation of the Federal Government as a percentage of the funds' net worth, and consequently its exposure in case of devaluation of the equity.

As an example of the magnitude of the fiscal risks involved, there are the shipbuilding operations, in which FGCN granted a guarantee on financing for the construction of oil exploration rigs, in the amount of US$ 1,92 billion. As all the guarantees granted were activated, the Fund honored US$ 1,125 billion between 2015 and 2016, exhausting its assets, leaving approximately US$ 798.3 million in guarantees that were not honored, since the Fund no longer had assets and the Federal Government did not participate in the risk beyond the quotas contributed. In the scope of student financing contracts guaranteed by FGEDUC, the fund has executed until August 2022 the payment of honors in the amount of R$ 6,817 billion, referring to 274.342 contracts. As the fund is close to reaching its *stop loss*, an element that determines the honor limit to be paid by the fund proportionally to its Net Worth, the Administrator will be unable to honor new guarantees.

In addition to the payment of honors in recent years, in the year 2021, the Federal Government increased the amounts contributed to the guarantee funds to reinforce government measures to combat the effects caused by Covid-19. In this sense, resources were contributed to the Guarantee Fund for Operations - FGO and the Guarantee Fund for Investments - FGI to provide credit guarantees to micro, small, and medium-sized companies during the pandemic period. For the FGO, through Law 13.999, of May 18, 2020, and the consequent creation of the National Program to Support Micro and Small Companies - Pronampe, the Federal Government was authorized to increase its participation in the fund by R$ 36,09 billion. In the FGI, with the advent of the Emergency Program for Access to Credit - Peac, through Law 14.042, of August 19, 2020, the Federal Government contributed R$ 20 billion to the fund.

Besides the investments in the FGI and FGO, the Federal Government issued Provisional Measure 1.090, of December 30, 2021, later converted into Law 14.375, of June 21, 2022. This law, among other measures, established the conditions for settlement of disputes regarding the collection of student loans. In practice, the measure benefited students who had adhered to student loans until the second semester of 2017, with rebates of up to 99% on their debts, an action that sought to reduce the FIES default rate, which grew due to the Covid-19 pandemic. As the financing was guaranteed by FGEDUC, this debt forgiveness reduces the amount that the fund could potentially have to honor, but on the other hand it reduces the amounts that can be recovered, since the law authorized FGEDUC to grant the same conditions as FIES in the recovery of honored credits.

Chart 33 - Federal Government Participation in the Guarantee Funds' Net Worth
Position: 06/2022
Source: Fund Administrators Elaboration: STN/SETO/ME



Box 1 - The National Program of Support to Micro and Small Companies - PRONAMPE

Pronampe was created in May 2020, by Law 13,999 of May 18, 2020, to assist small and medium-sized businesses affected by the COVID-19 pandemic. The program provided low-interest loans, subsidized through the Operation Guarantee Fund (FGO). In 2020, about half a million entrepreneurs benefited from the program, with more than R$ 37 billion in loans. As part of these resources was not used to back the contracting of guarantees by the original deadline, there were extensions in the deadline for their use, through Law 14.161, of June 2, 2021, and later, through Law 14.348, of May 25, 2022, so that the resources will be fully used in new contracts, making the program permanent.

3.1.3.3 Export Guarantee Fund (FGE)

The FGE's resources are used to back the Export Credit Insurance (SCE), which is the Federal Government's coverage for exports of national goods or services against commercial, political, and extraordinary risks that may affect economic and financial transactions linked to export credit operations.

The Fund's exposure, in terms of resources, has declined in recent years. Between approved and completed operations, the exposure has declined considerably (in 2014 it was approximately US$ 31.1 billion and in 2022 US$ 6.9 billion[21] - June position) as shown in Table 13.

The decrease in exposure can be explained mainly by the budget restrictions to which the Fund was subjected as of 2017. As a secondary effect, the increase in budget constraints led to the adoption of additional internal prudential mechanisms for the approval of new operations. In addition, part of the approved operations had their balances cancelled and excluded from the national exposure and a significant number of export operations were concluded with their balances cancelled and excluded.

The FGE, established by Provisional Measure 1.583-1/97, converted into Law 9.818/99, is a public fund of the Federal Government, of an accounting nature, linked to the Ministry of the Economy, financially managed by the BNDES, which has the purpose of covering the guarantees provided by the Federal Government in operations that cover export credit.

[21] The FGE exposure includes: Claims to be settled, installments due in the month, balance to be disbursed, installments due, approved amounts, exposure to other risks and indemnities net of recoveries. In the Fiscal Management Report (RGF) of the 2nd Quarter of 2022 (August position), the value of the FGE is approximately US$ 4 billion, however this value refers only to Instalments to Fall Due.

Table 14 - FGE exposure by Residual Term and Operation Phase
Data in: US$ million Position: 06/30/2022
Source and Preparation: CAMEX/ME

Residual Term (in years)	Approved[1]				Completed[2]				Total			
	Exhibition (US$)	%	Qty	%	Exhibition (US$)	%	Qty	%	Exhibition (US$)	%	Qty	%
00 - 05	304.1	36.7%	6	60.0%	2,712.5	44.5%	861	97.5%	3,016.7	43.6%	867	97.1%
05 -10	1.6	0.2%	2	20.0%	1,449.7	23.8%	12	1.4%	1,451.3	21.0%	14	1.6%
10 - 15	523.0	63.1%	2	20.0%	1,354.9	22.2%	7	0.8%	1,877.9	27.1%	9	1.0%
15 - 20	-	-	0	-	580.0	9.5%	3	0.3%	580.0	8.4%	3	0.3%
20 - 25	-	-	0	-	-	-	0	0.0%	-	-	0	0.0%
Total	**828.8**	**100.0%**	**10**	**100.0%**	**6,097.1**	**100.0%**	**883**	**100.0%**	**6,925.9**	**100.0%**	**893**	**100.0%**

[1] For approved operations, the residual term is the disbursement term plus the repayment term, counted from the base date of the evaluation.
[2] The residual term for completed transactions is defined as: (i) if there is no balance to be disbursed on the valuation base date, the residual term is equal to the remaining term for repayment; (ii) for transactions with a balance to be disbursed, the residual term is considered to be the maximum theoretical disbursement term determined on the survey base date (not taking into account any disbursements made up to that date), plus the repayment term.

Table 13 - Estimated Impact of SCE Maintenance
Data in: R$ million
Source: CAMEX/ME

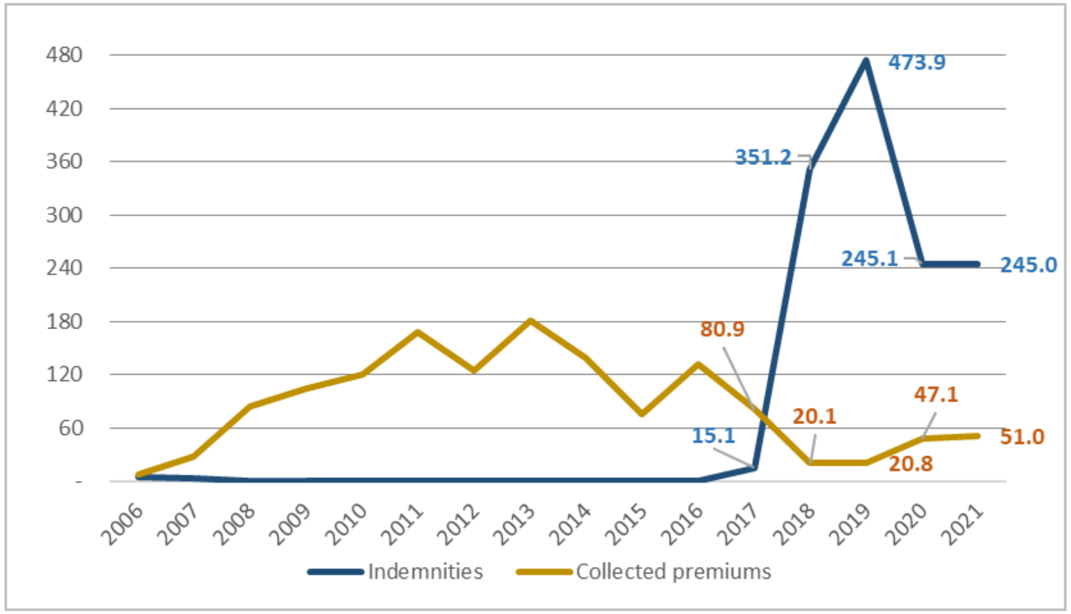
Impact Category	2023	2024	2025	2026
Estimated FGE payments (R$)[1]	1,666.0	1,205.0	838.0	771.0

[1]. The estimates were derived from the estimated budget impact in 2023, weighted by the Run-Off of the following years, provided by ABGF.

In the approved FGE operations, the residual term is the disbursement term plus the repayment term, counted from the base date of the evaluation.
In realized operations, on the other hand, the residual term is defined as:

- *in case there is no balance to be disbursed on the valuation base date, the remaining term for repayment;*
- *for operations with a balance to be disbursed, the maximum theoretical disbursement term ascertained on the survey's base date (not taking into account any disbursements made up to that date), added to the disbursement term.*

Chart 34 - FGE: Premiums Collected X Indemnities (Flow)
Data in: US$ million
Source: ABGF, BNDES



The SCE operations may be in an "approved" or "materialized" situation. The approved operations are those that have been processed in the decision-making instances, with the issuing of a coverage offer by the FGE, but without the issuing of a policy. The concretized operations are those in which the export credit insurance policy has already been issued.

In the general scope, the evolution of collected premiums and indemnities is illustrated in Chart 34. The total volume of indemnities paid by the FGE, since the beginning of its activities, reached US$ 1.37 billion, of which US$ 245 million occurred in 2021. Similar to what happened in 2020 and as foreseen, there was another accident in the aviation sector, still due to the impact of the Covid-19 pandemic.

As it is a primary expenditure, the materialization of the FGE's fiscal risk impacts the Federal Government's primary result and the spending cap limit. The estimated impact of maintaining the SCE from 2023 to 2026 is about R$ 4,5 billion.

3.1.4 Constitutional Financing Funds

The Constitutional Financing Funds are the main financing instruments of the National Policy for Regional Development (PNDR), contributing to the economic and social development of the Midwest (FCO), Northeast (FNE), and North (FNO) regions, by granting benefits to productive agents of all sizes and sectors, especially micro, mini, and small ones, which have differentiated treatment.

As the Funds have a public nature and are part of the assets of the Federal Government, the fiscal risks are related to default on financing. In this way, provisions are set up for bad debts referring to the installments of principal and charges overdue for more than 180 days. The installments past due for more than 360 days, in turn, are recorded as a loss in memorandum accounts until all the procedures for their due collection are concluded.

The resources that make up the Constitutional Funds correspond to 3% of the proceeds of the IPI and IR (besides the returns and results of their investments), distributed as follows:
FNO - 0,6%
FCO - 0,6%
FNE - 1.8%

Table 15 - Constitutional Funds Allowance for Doubtful Debtors
Data in: R$ million
Source: Banks Administrators Elaboration:STN/SETO/ME

Funds	Accomplished	Estimate			
	2021	2022	2023	2024	2025
FCO	28.5	21.8	23.1	24.5	25.9
FNE	909.6	965.0	1,065.4	1,178.3	1,220.9
FNO	322.3	309.1	325.9	337.2	344.6
Total	**1,260.3**	**1,296.0**	**1,414.4**	**1,539.9**	**1,591.3**

According to the Funds balance sheet of December 31, 2021, for the FCO, the FNE and the FNO, it can be seen that the expenditures with provisions for doubtful accounts added up in 2021, respectively, R$ 28,5 million, R$ 909,6 million and R$ 322,3 million, totaling R$ 1.260,3 million (R$ 1.086,8 million in 2020, an increase of 16% in the 2020/2021 period). Such amounts are presented in the result accounts of the respective funds' balance sheets. Additionally, the banks that manage these funds project the expected provision amounts for future years, as shown in Table 15.

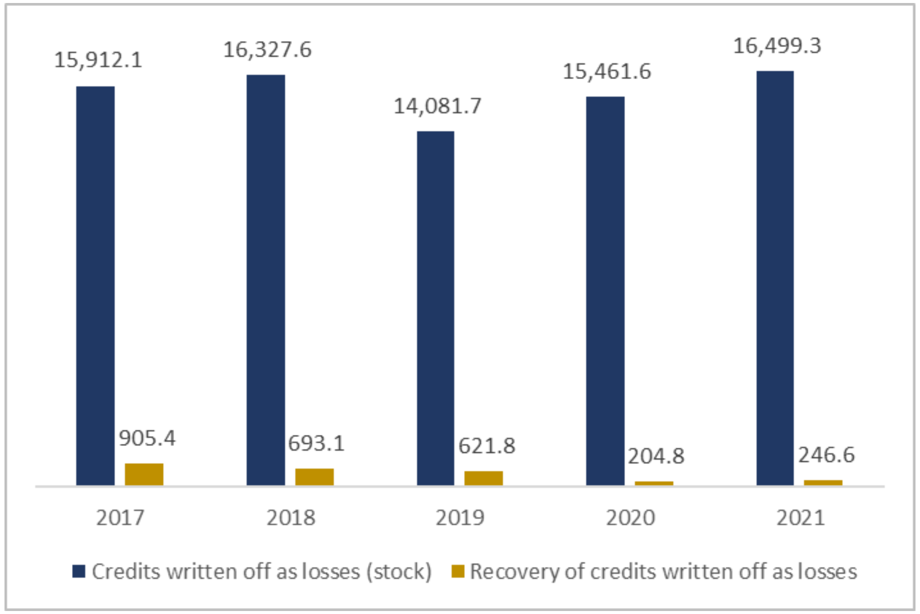
The credits written off as losses and recorded in memorandum accounts may be recovered in the future, even if only in a small fraction. These credits, which once generated a negative fiscal impact at the time of the provision, may positively affect the primary result in the event of recovery. A Table 16 details credit recovery by Fund, while Chart 35 presents the recovery since the year 2017.

Table 16 - Recovery and Inventory of Credits Written off as Loss
Data in: R$ million Position: Dec/2021
Source: Balance Sheets of the Constitutional Funds and information sent by the managing banks. Elaboration:STN/SETO/ME

Funds	Recovery of credits written off as loss (A)	Stock of credits written off as loss (B)	Recovery Quotient (A/B)
FCO	2.2	718.0	0.31%
FNE	129.0	11,595.5	1.11%
FNO	115.4	4,185.8	2.76%
Total	**246.6**	**16,499.3**	**1.49%**

The impact of these operations on the fiscal statistics, either the provision for bad debts or the recovery of credits written off as losses, occurs under the heading of result of the constitutional funds and affects the primary result of the Central Government.

Chart 35 - Evolution: Stock of Losses and Recoveries (Constitutional Funds)
Data in: R$ million
Source: Managing Banks



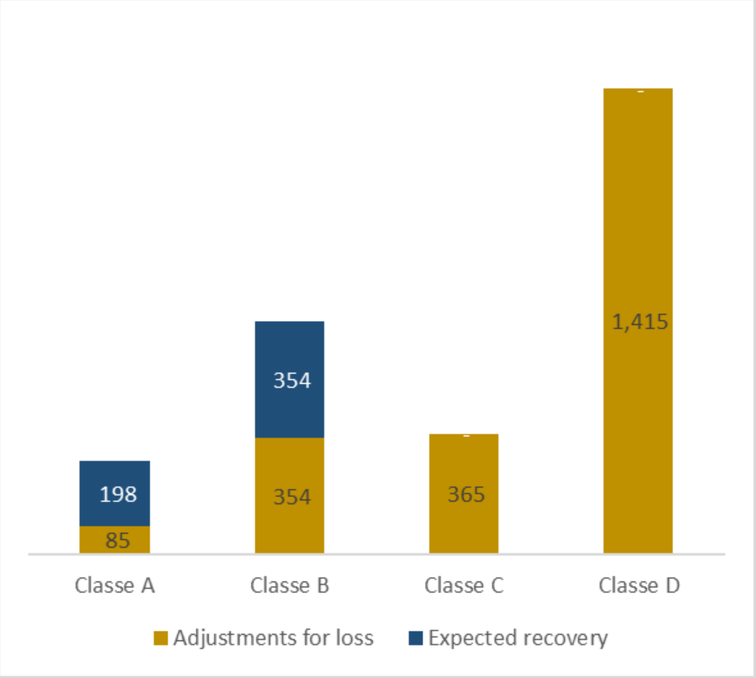
3.2 Assets

3.2.1 Active Federal Debt

The Active Federal Debt (DAU) refers to the set of credits, owned by the Federal Government, which have not been paid by the debtors when due, and the Government has the authority to collect interest, fines and monetary restatement on the amounts due. The fiscal risk involved consists in the Federal Government not receiving the amounts to which it is entitled or receiving them after the deadlines previously set.

Chart 36 shows the DAU, by type of credit and rating, totaling an inventory of R$ 2,770 billion, as of June 2022. Of this amount, R$ 1,415 billion (51%) refer to credits classified as irrecoverable (Class D), while only R$ 282 billion (10%) refer to credits with a high recovery perspective (Class A). The remaining credits are classified as having medium and low recovery prospects.

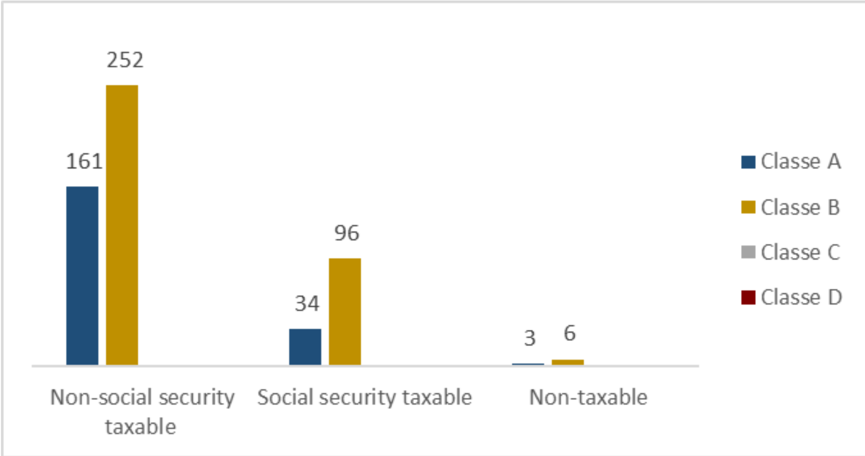
Chart 36 - Distribution of DAU by Type of Credit and Rating
Data in: R$ billion Position: 06/30/22
Source: PGFN



The Attorney General of the National Treasury (PGFN) is responsible for managing the Active Debt, and must register the credits claimed by the various government agencies, as well as provide the appropriate collections, whether amicable or judicial. The classification methodology for the credits registered in the Collective Debt has the following rating structure:
a) Class "A": credits with high recovery perspective;
b) Class "B": credits with medium recovery perspective;
c) Class "C": credits with low recovery perspective;
d) Class "D": irrecoverable credits.

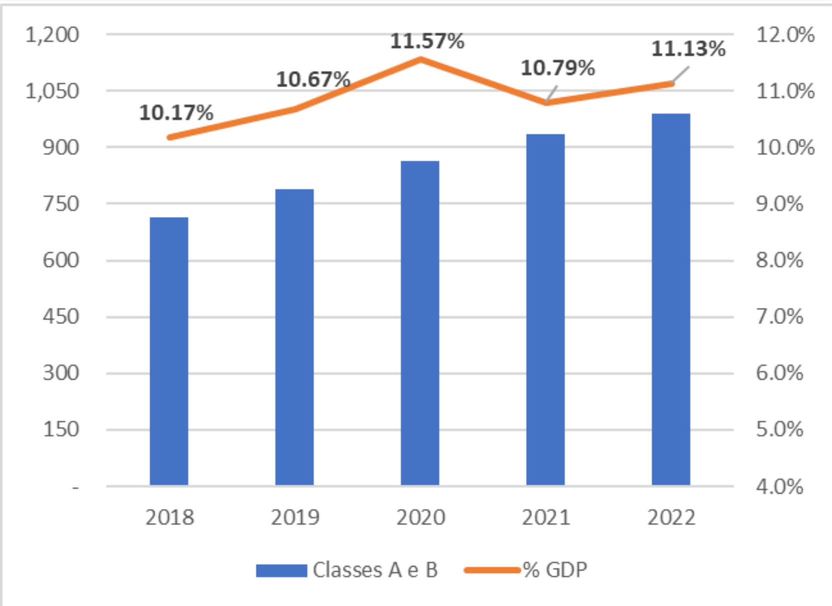
Based on the history of compliance with the DAU, the expected recovery of the credits of classes "A" and "B" over the next 15 years is, respectively, 70% and 50%, with consequent adjustments for losses of 30% and 50%, as shown in Chart 37. Therefore, of the balance of R$ 2,770 billion, about R$ 2,219 billion (80%) are considered losses. Thus, R$ 552 billion are expected to be recovered, with most of it impacting the primary result.

Chart 37 - Active Federal Debt - Expected Recovery per Rating
Data in: R$ billion Position: 06/30/22
Source: PGFN



Another relevant aspect is the evolution of the Active Federal Debt for those credits with high and medium recovery prospects (respectively, Classes A and B). Over the past 5 years there has been an increase in those credits considered to have a good prospect of recovery (in 2018 it represented 10.2% of GDP and in 2022, until June, 11.1% of GDP), see Chart 38.

Chart 38 - Evolution of the Federal Outstanding Debt with good recovery prospects (Classes A and B)
Data in: R$ billion Position: 06/30/22
Source: PGFN



With regard to the estimated collection of DAU credits, a re-estimate occurred, considering the flows for the current and the next fiscal years (years 2022 to 2025), as shown in Table 17. For the years 2022 to 2025, the reestimation of DAU collection has been made taking into account the flows for the current and the next fiscal year.

Article 13 of MF Ordinance No. 293 of June 12, 2017, states that credits classified with ratings C and D will be derecognized from the Federal Balance Sheet and must remain in a control account until they are extinguished or reclassified.

The Public Treasury's credits originated from non-tax fines, rents, fees, leases or occupation taxes, procedural costs, prices for services rendered by public establishments, indemnities, restitutions, refunds, as well as credits resulting from obligations in foreign currency, subrogation of mortgage, guarantee, aval guarantee or other collateral, contracts in general or other legal obligations (according to Law no. 4.320/1964) are classified as non-tax active debt.

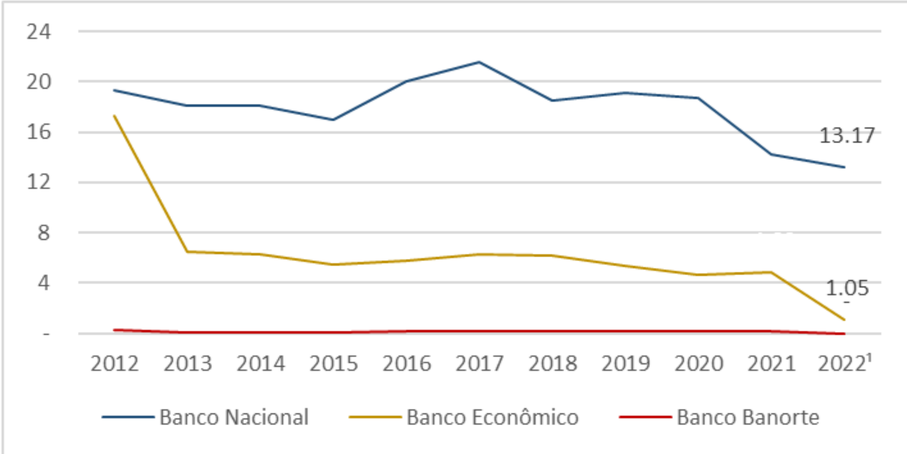
3.2.2 Credits from the Central Bank of Brazil

These are credits from the Central Bank of Brazil - BCB - originating from operations of the Program to Stimulate the Restructuring and Strengthening of the National Financial System - PROER - and from overdrafts in the Bank Reserves account. The impacts of such credits on the public accounts are financial in nature and, a priori, do not constitute fiscal risk.

At each calculation of the BCB's balance sheet, the values of these credits are updated according to the original characteristics, considering the guarantees and the defined methodology. Besides the write-offs due to the receipt of the installments and the accreditation of interest, an adjustment to the recoverable value is made. The Chart 39 shows the annual variation of BCB credit balances, which totaled R$ 14,2 billion in September 2022.

The Table 18 presents the cash flow estimates for the current and three subsequent years. In the first half of 2022, Banco Banorte and Banco Econômico settled early, in full and in part of the contracts, respectively, their debts with the Central Bank. The settlement includes a discount on the charges provided for in item I of Paragraph 3 of Article 65 of Law 12249 of 2010.

Chart 39 - BCB credits under PROER
Data in: R$ billion
Source: BCB



[1] Position in September 2022

Table 18 - Estimated Cash Flow of BCB Credits
Data in: R$ million
Source: BCB

Financial Institution	2022[1]	2023	2024	2025
Banco Nacional	1,906.0	4,002.0	4,272.0	4,564.0
Banco Econômico	375.0	796.0	861.0	931.0
Banco Banorte	0.0	0.0	0.0	0.0
Total	**2,281.0**	**4,798.0**	**5,133.0**	**5,495.0**

[1]Estimate for the 2nd semester

3.2.3 Financial Assets Not Related to Subnational Entities

The financial assets of the Federal Government not related to subnational entities, under the management of the STN, are currently classified into six categories, according to the rule or act that originated them, as follows: Originating from Loans granted to Financial Institutions; Originating from Rural Credit Operations; Originating from Credit Assignment Operations; Originating from Export Credit Operations; Originating from Loans to Non-Financial Entities and Emergency Employment Support Program - PESE/FOPAG.

The fiscal risk involved in these financial assets refers to the possibility of the estimated flows not taking place, thus compromising the Federal Government's financial revenues. Based on information provided by the financial institutions contracted by the Federal Government to manage the credits, the amount of R$ 4,55 billion is registered in the SIAFI referring to adjustments for losses of the financial holdings not related to subnational entities (position 08/31/2022).

Regarding the flow estimates, the Table 19 presents the respective receivables, per year, according to the financial haver:

Table 19 - Financial Assets Not Related to Subnational Entities
Data in: R$ million
Source: STN/SETO/ME

Financial Asset	Stok [1]	Estimated Flow			
		2022	2023	2024	2025
Loans to Financial Institutions	149,659.6	41,361.1	19,371.3	14,586.9	10,630.7
Rural credit	5,282.1	348.5	606.1	555.6	468.0
Credit Cession (or structured)	5,521.6	958.8	1,310.6	1,050.4	1,081.8
Export Credit	5,767.1	891.6	897.6	902.5	924.7
Loans to Non-Financial Entities	10.5	29.2	12.0	0.0	0.0
Emergency Employment Support Program - PESE/FOPAG	3,081.0	3,020.1	1,935.3	0.0	0.0
Total	**169,322.0**	**46,609.4**	**24,132.8**	**17,095.3**	**13,105.2**

[1] Position 8/31/2022.

3.3 Subnational Entities

The Federal Government's exposure to fiscal risks arising from subnational entities results from two main sources: (i) payment defaults related to financial credits of the Federal Government with subnational entities; (ii) honoring of guarantees by the Federal Government in loans contracted by subnational entities. The Federal Government's financial credits to states and municipalities arise from debt financing and refinancing programs, implemented in accordance with specific legislation and formalized through contracts between the parties. In turn, the guarantees granted by the Federal Government to subnational entities apply to foreign loans, mostly taken with multilateral organizations, and domestic loans contracted with federal financial institutions.

A Table 20 presents the stock of credits of the Federal Government before the subnational entities and the expected flow of payments to the Federal Government, already considering the default of the states of Rio de Janeiro, Rio Grande do Sul and Goiás due to their adhesion to the new format of the Fiscal Recovery Regime, as well as the default of Minas Gerais for the period foreseen in the Regime, as if it were part of it. Additionally, at the end of the table, we present the expected payment flow for credit operations of sub-national entities guaranteed by the Federal Government, which may potentially require discharge by the Federal Government with judicial restrictions on the execution of counter-guarantees.

It is worth noting that the values in Table 20 were impacted by legal changes that occurred throughout 2022[22] . We highlight, for example, the recent change in the debt flows of LC no. 159/17 - Art. 9º-A and LC no. 178/21 - Art. 23, since, based on the PGFN's position, it was no longer considered that the state of Minas Gerais will be able to homologate its Fiscal Recovery Regime (RRF). For this reason, the flow values and the debt stock determined by Art. 9 of LC no. 159/17 decreased and are now considered in the scope of the receipts foreseen by Art. 23 of LC no. 178/21. Furthermore, with the effective ratification of the RRF of the states of Rio de Janeiro and Rio Grande do Sul, it was possible to determine exactly the initial balance of the account foreseen by Art. 9-A of LC no. 159/17. In turn, the flow of receipts resulting from Law 9496/97 has undergone changes due to the effects of the STF preliminary court decisions in favor of the states for the offsetting or suspension of their debts to the Federal Government due to the loss in ICMS collection. Also, the stock and flow of debt foreseen by MP no. 2,185 were impacted by the write-off of the debt of the municipality of São Paulo, resulting from the conciliation of Campo de Marte.

[22] The values presented in Table 19 (whose position is from 08/01/2022) present updates in relation to the values that were presented in the publication of the update of the Annex of Fiscal Risks of the PLDO 2023 (these present a position referring to 06/30/2022).

Table 20 - Fiscal Risks Resulting from Assets and Guarantees with States and Municipalities
Data in: R$ billion
Source and Elaboration: STN/SETO/ME

Assets/Liabilities	Stock [1]	Receipts / Payments Flow			
		2022 [2]	2023	2024	2025
Assets	**666.1**	**6.6**	**37.2**	**46.6**	**46.4**
Law 9.496 [3]	538.6	3.6	28.2	31.2	33.6
Law 8.727 [4]	6.5	0.0	0.1	0.1	0.2
Sanitation Portfolio	0.3	0.0	0.1	0.1	0.1
DMLP	4.1	0.1	0.2	4.4	-
MP 2.185	4.0	0.1	0.3	0.3	0.3
RRF - Refund of honors [5]	-	-	0.8	1.5	2.2
LC no. 178/21 - Art. 23	37.1	0.9	2.3	2.5	2.6
LC no. 159/17 - Art. 9 A	75.5	1.9	5.4	6.6	7.5
Contingent Liabilities	**249.9**	**13.0**	**38.8**	**37.5**	**36.2**
Guarantees to Governments - Domestic	93.9	6.3	17.3	16.6	15.5
Guarantees to Governments - External	126.4	5.0	15.6	15.0	14.9
Guarantees to Municipalities - Domestic	8.3	0.8	2.8	2.5	2.2
Guarantees to Municipalities - External	21.3	0.9	3.1	3.4	3.6
Total	**916.0**	**19.6**	**76.0**	**84.1**	**82.6**

[1] The values of the stocks of assets refer to 08/01/2022, while the values of guarantees refer to 04/30/2022.
[2] Flows from 2022 consider only the months of September, October, November and December. Suspensions are already taken into account of payments due to injunctions obtained by the states of AC, AL, MA, MG, PI, SP and RN as a result of LC no. 194/22.
[3] Law 9496 considers the application of the RRF to the states of Goiás (as of Jan/22), Rio Grande do Sul and Rio de Janeiro (as of Jun/22).
[4] Law 8,727 considering the application of the RRF to the State of Goiás (as of Jan/2022).
[5] The future receipts shown relate to the return of part of future honours that the Federal Government will still perform in favor of the entities that adhered to the RRF, according to the methodology established in LC no. 159/17. In this sense, the zero amount of the stock is due to the fact that such honors have not yet occurred.

On the guarantees side, in 2021 the Federal Government, through the STN, honored R$ 8,9 billion in defaulted payments for the services of these debts contracted by states and municipalities, and by August 2022 another R$ 6 billion had already been honored.

Additionally, it should be noted that EC 109/2021 revoked the provision of EC 99/2017, which required the Federal Government to finance, directly or through financial institutions under its control, the payment of the remaining balances of overdue and unpaid court-ordered debts (precatórios) of states and municipalities by the end of 2024. However, a lawsuit to reverse this cancellation is currently in court. The current stock of debts owed by states and municipalities is R$ 138,4 billion (as of 08/31/2022). An estimate of the potential financial impact of this Amendment, if the Federal Government were required to provide a credit line in the amount of the balance in the consolidated debt, would be equal to this amount.

A Table 21 consolidates the aforementioned fiscal risks arising from intergovernmental relations. The Federal Government's exposure to risks arising from default on debt payments and the payment of honors on guarantees granted by the Federal Government reaches the amount of R$ 916 billion, which corresponds to 9.5% of the GDP.

It is important to mention that another source of uncertainty for the Federal Government in its inter-federal relationship comes from the approval of legislation that benefits the subnational entities while at the same time burdening the Federal Government. Among the projects in Congress, there is the PLS 561/2015, which plans to further reduce the interest charged by the Federal Government in operations in which it refinanced the debts of states and municipalities. The interest rates would be limited to inflation adjustment and the indexer change would be retroactive to the original contract signatures.

Table 21- Fiscal Risks Resulting from Intergovernmental Relations
Data in: R$ billion
Source and Elaboration: STN/SETO/ME

Fiscal Risks	Value	Percentage of GDP
Arising from Assets	666.1	6.9%
Arising from Guarantees	249.9	2.6%
Injunctions in Constitutional Amendment No. 109/2021	138.4	1.4%
Total	**1,054.4**	**10.9%**

A relevant point to be highlighted is the approval of Complementary Law (LC) no. 194, of June 23, 2022, regulated by ME Ordinance nº 7889, of September 2, 2022, which limits the collection of the ICMS tax on fuels, electric power, communications, and collective transportation and provides for the compensation, by the Federal Government, of the collection losses of the States or the Federal District. According to estimates made by this STN, the forecast of compensation by the Federal Government is R$ 6,0 billion in 2022, according to the parameters of the normative rule. This compensation is legally foreseen to occur only for the losses observed in 2022, but there is a risk that this compensation may become perennial or even be made according to alternative parameters that increase its fiscal impact for the Federal Government.

The federal legislature is also in the process of amending the Federal Constitution in order to increase the rate of the State Participation Fund from 21.5% to 26%. Besides the direct impact resulting from the increase in the distribution percentage, the proposal will also generate a fiscal impact resulting from the increase in the Federal Government's complementation to the Fundeb. A Table 22 presents the estimated impacts, immediate and over a ten-year period, of these legislative proposals for the Federal Government.

Finally, it should be noted that the episodes of payment default by the federal entities and the events of redemption and honoring of guarantees by the Federal Government arise from a situation of imbalance in the public accounts of subnational entities. In order to define the conditions for granting credit operations and to mitigate the fiscal risks arising from the relations with the other federal entities, the Federal Government, through the STN, monitors the public finances of the entities. The monitoring of performance indicators and the panorama of public finances of the states and state capitals is presented in the Finance Bulletin of the Subnational Entities, published annually by the National Treasury Secretariat[23] .

Table 22 - Uncertainties Arising from Legislative Proposals
Data in: R$ billion
Source and Elaboration: STN/SETO/ME

Proposal Reviewed	Impact on the Federal Government's cash flow	
	2022	Next 10 years
PEC 51/2019 (FPE)[1]	-	392.8
PEC 51/2019 (FPE + Fundeb)[2]	-	410.5
Extension of LC 148 (PLS 561/2015)	249.7	457.5
Total	**249.7**	**1,260.8**

[1] Fiscal impact arising from the increase in the FPE.
[2] Fiscal impact resulting from the increase in the FPE plus supplementation to Fundeb.

More detailed information on subnational entities can be obtained in the Municipalities and State Governments section of the STN website, at the following electronic address: https://www.gov.br/tesouronacional/pt-br/estados-e-municipios

[23] https://www.tesourotransparente.gov.br/publicacoes/boletim-de-financas-dos-entes-subnacionais/2021/114

3.4 State Companies

The fiscal risks of the non-dependent state-owned companies directly controlled by the Federal Government (scope of this section) refer mainly to revenue expectations and unforeseen expenditures. This is a set of 28 state-owned companies, 23 of which are public corporations and 5 are mixed-capital companies.

A Table 23 presents the estimated flows for the current year and the next three years, which constitute the basis for the calculation of fiscal risks related to state-owned companies and are described in the side note.

The assessment of fiscal risks of non-dependent state-owned companies, in most of the mapped risk elements, requires the separation of the category of Federal Financial Institutions (FFIs) from the other non-dependent state-owned companies that explore economic activities or provide public services, due to the specificity of the financial sector, which has its own regulations, especially regarding compliance with capitalization indicators.

The fiscal risk associated to the Federal Financial Institutions (FFIs), in general, is not related to the shortage of cash (liquidity), but to the insufficiency of regulatory capital to comply with the capital requirement indexes (Basel, Tier I Capital and Core Capital). Eventual capitalization or reduction of dividends and JCP necessary for this compliance represent a direct fiscal impact, since it is an increase in expenditure or reduction of primary revenue. The set of IFFs is formed by five companies, which are presented with their respective financial indicators in Table 24.

Table 23 - Estimated Flows - Non-dependent States
Data in: R$ million
Source: STN/SETO/ME, SEST, LDO 2023. Prepared by: STN/SETO/ME

Nature	Estimated Flow				Financial (F) Primary (P) Impact
	2022	2023	2024	2025	
Revenue dividends and JCP [1]	80,461.3	41,355.3	35,448.9	30,786.3	P
BB	5,648.7	4,769.0	5,110.8	5,520.9	
CEF	3,591.4	2,475.0	2,831.3	3,037.5	
BNDES	18,878.6	14,383.0	7,794.4	2,450.7	
PETROBRAS	50,143.7	18,925.3	18,925.3	18,925.3	
Others	2,198.9	803.1	827.1	851.9	
Transfers for Capital Increase[2]	8.5	n.d.	n.d.	n.d.	P
Primary Results of State-Owned Enterprises[3]	-2,766.9	-3,002.9	-3,221.4	-3,447.6	P

[1] *Dividends: forecast for PLOA 2023 and PETROBRAS in 07/29/2022.*
[2] *Transfers for capital increase from LOA 2022 + registered payables.*
[3] *Fiscal Targets forecast for PLDO 2023.*

The fiscal risks related to non-dependent state-owned companies refer to the possibility of the occurrence of the events below, according to their nature:
Revenue frustration - revenue from dividends and/or interest on equity (JCP) less than the revenue estimated in the composition of the Central Government's fiscal result;
Emergency contribution - capital contribution or economic subsidy on an emergency basis to meet the need for resources or capital of a particular state-owned company; and
Additional fiscal effort (compensation of primary) - need for the National Treasury to compensate for an eventual primary result lower than that estimated for the overall primary results of the federal state-owned companies.

Table 24 - Required vs. Observed Capital Ratios
Sources: Quarterly Information (ITR); CMN Resolution No. 4,958/2021 and regulations.
Elaboration: STN/SETO/ME

Indicators	IFF with Systemic Relevance			IFF without Systemic Relevance			
	Min. Required[1]	BB 2º t. 2022:	CEF 2º t. 2022	Min. Required[2]	BNDES 2º t. 2022	BASA 2º t. 2022	BNB 2º t. 2022
Main Capital	8.00%	12.49%	14.96%	7.00%	26.36%	11.70%	10.61%
Tier I Capital	9.50%	15.41%	15.22%	8.50%	26.36%	11.70%	11.65%
Basel	11.50%	17.54%	18.65%	10.50%	33.42%	11.70%	13.76%

[1] Includes conservation ACP and systemic ACP.
[2] Includes conservation ACP.

We can see that the IFFs present all capital indexes above the regulatory minimums by at least 1 percentage point, which can be considered a reasonable margin. Banco da Amazônia's Basel ratio has remained around 12% over the last few quarters, a lower value than its peers. Although this situation does not represent a significant risk to the Federal Government in terms of loss of collection of dividends, since it is the smallest institution, the trend of this indicator gave rise to an input in 2021, through an advance for future capital increase (AFAC), whose capitalization was authorized by Decree 10,555/22, which will represent an improvement in this indicator, which requires attention from the management of that institution regarding the adoption of mitigating measures, in order to avoid non-compliance with the regulation.

It is worth highlighting the special situation of the BNB due to the TCU's decision number 1325-Plenário, dated 05/27/2020, which judges the Bank's accounts as irregular and determines the replacement of amounts to the Constitutional Financing Fund of the Northeast - FNE. This is an amount related to the non-recording of provisions for loans operated by the federal bank with resources from the Constitutional Fund between the years 2000 and 2005. According to BNB, if the amount is eventually recognized by the bank, the Tier I Capital Index will decrease, and may fall below the minimum percentage determined by the Monetary Authority of 8.5%. The participation of BNB dividends in the context of dividend collection is of the order of 0.1% of the total collection of this revenue. Although the non-payment of dividends by BNB is a possible risk, the possibility of alternatives within the Bank's management to manage the impacts cannot be ruled out. Moreover, BNB's dividends are not relevant in the overall revenue of the National Treasury. Additionally, the process is still in the appeals phase.

As seen in Table 23, in relation to the other (non-financial) companies, the only company with a dividend/interest income forecast at a prominent value is Petrobras. Petrobras' forecasts were based on market estimates and parameters of its dividend policy. Eletrobras did not have a dividend estimate inserted in the PLDO 2023 because the Federal

Government's remaining shareholding interest, after the Company's privatization process, remains deposited in the National Privatization Program - PND. In view of this scenario, the risk that the Federal Government will suffer significant losses in the collection of dividend/interest income, including from financial institutions, so that they can safely comply with their operational limits, can be considered as a remote risk.

Regarding the risk of emergency contribution, in relation to the federal financial institutions, the same analysis on the risk of frustration of dividends applies, so that it is considered a remote risk for most of these companies. The risk of BNB being disqualified from the Level I capital index, as a result of the reimbursement to the FNE determined by the TCU ruling 1325-Floor, 05/27/2020, can be compensated by retaining profits (dividends) or other adjustment measures or impact management, in case it materializes, being considered, however, a possible risk.

With regard to non-financial state-owned companies, the expectation remains that some will face financial difficulties, but there has been an improvement in the performance of most of these companies, in some cases ruling out risks in the short or medium term: Infraero, Emgea, ECT, Casa da Moeda and the Dock Companies (CDC, CDP, Codeba, CDRJ, Codern, SPA-Codesp). These companies have been adopting measures to reorganize their complementary pension plans, restructuring of health care plans, voluntary dismissal programs, corporate restructuring, including privatization processes. The 2021 annual financial statements and the 2022 interim statements indicate improvement trends in some companies, but possible worsening of the situation in others, which maintains the need to monitor performance, which is subject to economic, market, and legislative factors, among others. Among the companies that may present some worsening in their financial or economic situation are Emgea and Codern. A special credit is also being considered for Enbpar's capital increase.

An important factor to evaluate the risk of capital injections in non-financial state-owned companies is the emphasis placed by the Federal Government on a broad privatization process and partnerships with the private sector, which may contribute to reduce the pressure for investment resources or even the funding of these companies.

Due to a recent worsening of Emgea's cash flow situation, with an increased risk of default on financial obligations with the FGTS, especially as a result of difficulties inherent in the process of accreditation and novation of FCVS credits, the risk assessment for making contributions was changed from remote to possible in 2022 and 2023. Among the reasons for this assessment, firstly, there are ongoing negotiations for the renegotiation of debt maturities, a procedure that has already been carried out on other occasions. Emgea's obligations with the FGTS are guaranteed by the Federal Government itself, but the default situation may generate even greater restrictions for the company, which depends on this type of renegotiation from time to time. The company's assets exceed, in value, its obligations and Emgea is already in the process of privatization, and any intention to increase capital should be in line with the privatization model to be adopted, leaving, in an emergency situation, the transfer of economic subsidy.

There has also been a risk of deterioration in CODERN's economic situation, which is why the risk assessment of emergency contributions was changed from remote to possible in 2023 and 2024. The financial statements for 2021 have not yet been audited. The leasing of the Salt Terminal of Areia Branca, promoted by the National Agency for Waterway Transport - Antaq, on the São Paulo stock exchange, in parallel with the expansion of direct infrastructure investments in the port area, should represent, on the other hand, a reduction in expenditures, but also in the company's revenues.

Regarding the risk of additional fiscal effort, it should be noted that the 2022 primary result of state-owned companies is concentrated on Engeprom's performance, as well as on the resources contributed as a capital increase in ENBPAR. Another important aspect is that Eletronuclear (Enbpar's subsidiary) is not yet included in the programming, in addition to the impact of the implementation (depending on a legal evaluation) of a large-scale project, the construction of the Angra III nuclear plant, with a physical and financial execution schedule that has not yet been confirmed. The possible inclusion of Eletronuclear, due to the probable schedule for the end of the construction of Angra III, should affect the primary result targets of the state-owned companies, in order to accommodate these large investments. In this way, it is considered, for the entire period of analysis, a remote risk that any compensation of the primary results of the state-owned companies will be necessary.

3.5 Public Service Concessions and Public-Private Partnerships

3.5.1 Public Service Concessions

3.5.1.1 Expenditure Viewpoint

The modeling of infrastructure concession contracts adopts the guideline of transferring the most relevant risks to the concessionaire, as is the case of construction and demand risks. The Federal Government is responsible for extraordinary events that may be recognized, such as acts of God, force majeure or act of God, when there is a unilateral change in the contract.

There are contracts that foresee the possibility of economic-financial rebalancing, which could eventually cause a burden to the Federal Government. It happens that, even in the cases in which the economic-financial rebalancing of the contract is required, the Granting Authority has some compensation mechanisms that do not cause fiscal impact, such as, for example, tariff review or extension of the contractual term.

In addition, there is the possibility of extinction, anticipated or not, of the contracts. In these cases, it is possible that investments have been made in reversible assets that have not yet been fully amortized or depreciated, and the Federal Government may have to face an eventual payment to the concessionaire, depending on how the form of compensation will be defined.

It happens that, even in these cases, the risk of the Federal Government having to face eventual payment to the concessionaire can be mitigated, since there is the possibility that the asset will be relicensed and the compensation will be borne by future contractors, as provided in art. 15, § 1, of Law No. 13,448, of June 5, 2017, which deals with the relicensing of partnership contracts in the highway, railway and airport sectors.

Concessions are governed by Law No. 8987/1995, which defines public service concession as "the delegation of its provision, made by the granting authority, through bidding, in the form of competition, to the legal entity or consortium of companies that demonstrate ability to perform it, on their account and risk and for a specified period. The infrastructure concession auctions can be of two types:

- *by lowest tariff (highways, for example); and*
- *for a larger grant (airports, for example).*

3.5.1.2 Revenue Viewpoint

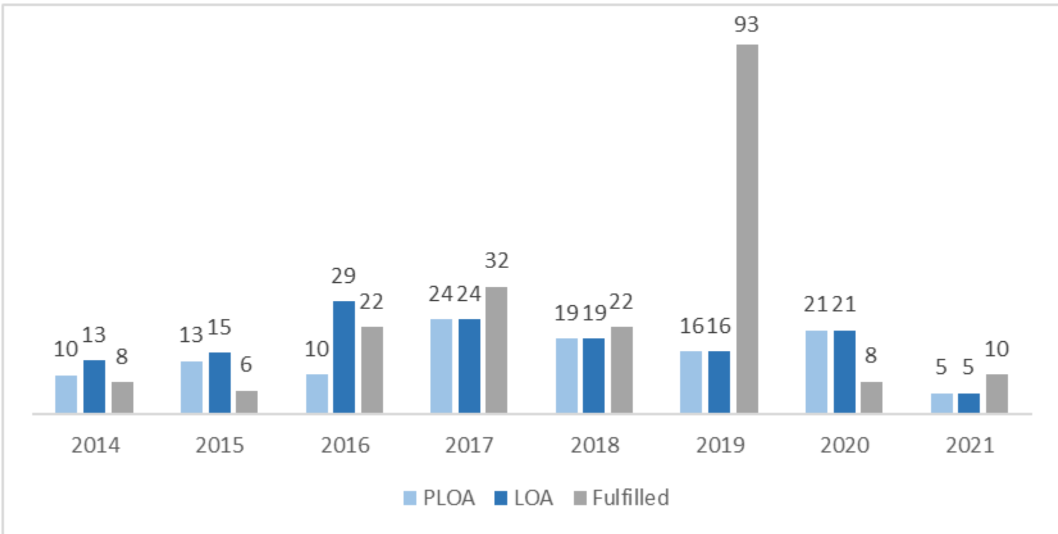
As far as concession revenue projections are concerned, the amounts collected come from the obligation of payment of the grant on the part of the concessionaire, defined in the contract. Part of the revenue comes from existing contracts and part from the conclusion of new contracts. In this context, the main fiscal risks arise, on the one hand, from the possibility of default by concessionaires with contracts in effect and, on the other hand, from the failure to sign new contracts scheduled for that period. In addition, there is the risk of demand that may impact the receipt of the variable award, i.e., an award proportional to the revenue of the concession.

In terms of the possibility of non-payment of grants of concessions in effect, the risk factors are related to legal challenges, legislative changes, requests for economic-financial rebalancing or even insolvency of the concessionaire. In terms of the possibility of not entering into new contracts, the main risk factors to be considered for the preparation of the Annual Budget Law are the feasibility of the auction schedule that precedes these contracts and the absence of proposals from interested parties ("deserted auction").

Additionally, there is the risk of conversion of concession revenue into cross investments of the concessionaire, as a result of new bidding processes or extension of railroad and highway concession contracts under Law No. 13,448 of 2017, which reduces the potential for new revenue of the Federal Government, as well as its predictability. The revenue projections of new contracts may also be affected by recently observed practices of directing resources from the concessionaire directly to state-owned companies, various works and linked accounts as provided for in bidding notices. Possible legislative changes that link the economic benefit of the concession award to specific investments or sectors may also have a negative impact on the potential revenues of the Federal Government.

To mitigate the risk of revenue frustration of the concessions throughout the year, the processes are monitored, and any change in estimates is reflected in the bimonthly evaluation reports of primary revenues and expenditures. In relation to the risk of a deserted auction, its mitigation by the granting authority involves guaranteeing that there is adherence between the economic model designed and the market's expectations, as well as guaranteeing that the bidding process is conducted in a way that minimizes uncertainties, favoring predictability and transparency.

Chart 40 - Concession Revenues
Data in: R$ billion
Source and Elaboration: STN



On Chart 40 it is possible to see the evolution of the concessions revenue and the dynamics between the values in the PLOA, the LOA, and the revenue actually realized. Since the projections for the PLOA are from June/July of the previous year to which the fiscal year refers, variations are evident between the values foreseen in the budget pieces and the values actually realized, since in this time interval it is common for new bidding processes to be announced. Besides this, possible premiums from auctions that have not yet been held are not considered in the projections made.

It should be noted that, in 2019, the difference between the amount realized in the year and that foreseen in the LOA occurred mainly due to the auction of surplus volumes to the onerous assignment contract, in the oil and gas sector, not foreseen in that year's LOA. In 2020, the difference occurred mainly due to the non-realization of revenues from the decommissioning of Eletrobras' hydroelectric plants, initially foreseen in the LOA. In 2021, the difference was due mainly to the inflow of resources from new concessions in the telecommunications, roads and airports sectors, not initially foreseen in the LOA.

3.5.1.3 Fiscal Risks in Administrative Lawsuits

The line ministries and regulatory agencies are responsible for overseeing the fiscal risks of concessions and PPPs, and for managing, monitoring and inspecting current contracts and providing for the registration of contingent assets and liabilities.

In addition, the sectoral ministries and regulatory agencies also have the role of structuring and implementing bidding processes for concessions and PPP projects, and are responsible for defining the allocation of risks between the public and private sectors for each contract.

A Table 25 represents the sum of the estimated fiscal impact to the Federal Government due to administrative claims for economic-financial rebalancing classified as probable risk of materialization by the regulatory agencies. It is noteworthy that for 2022, a large part of the expected contract rebalancing is due to the Covid-19 pandemic, a risk considered as force majeure and allocated to the Federal Government.

Table 25 - Fiscal risks in administrative claims
Data in: R$ million
Source: Regulatory Agencies. Prepared by: STN/SETO/ME

Rebalancing of Contracts	Economic and Financial Rebalancing Rated as Probable by the Agencies			
	2022	2023	2024	2025
Revenue Approach	1,854.1	41.4	40.2	39.0
Expenses Viewpoint	737.7	0.0	0.0	0.0
Total	**2,591.8**	**41.4**	**40.2**	**39.0**

3.5.2 Public-Private Partnerships

Public-Private Partnerships (PPPs) within the powers of the Federal Government, the States, the Federal District and the Municipalities are governed by Law nº 11079 of December 30, 2004. This law, in its article 4, defines that "among the guidelines to be observed in contracting public-private partnerships, there must be an objective sharing of risks between the parties.

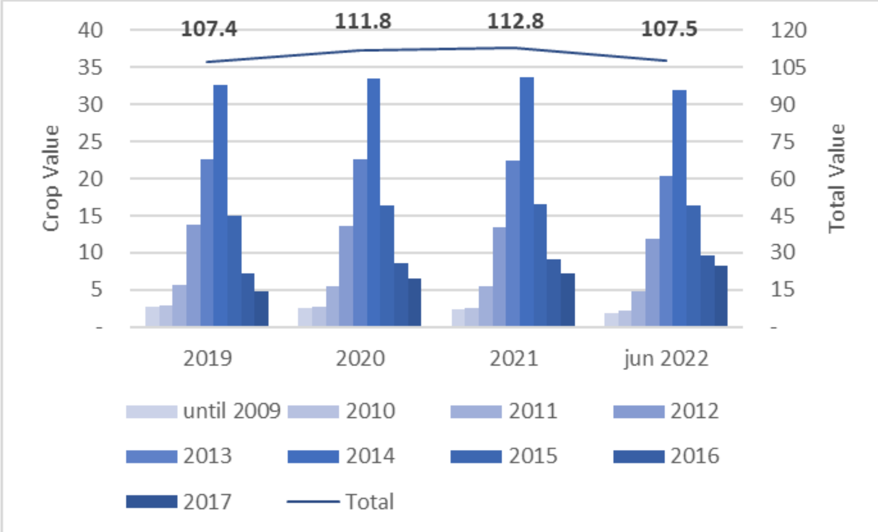
In this sense, with regard to Federal PPPs, it is worth mentioning that the Federal Government, considering its direct and indirect administration, currently has only one PPP contract, which is the Data Center Complex contracted by a consortium formed by Banco do Brasil and Caixa Econômica Federal with GBT S/A. However, as the state-owned companies involved are not dependent and the contracts do not foresee any type of guarantee from the granting authority to the concessionaire, there are no risks allocated to the Federal Government.

3.6 Student Financing Fund (Fies)

Fies is an accounting fund managed by the Ministry of Education (MEC), which aims to finance the graduation of students enrolled in non-free higher education courses and with a positive evaluation in the evaluation processes conducted by MEC. The program currently has (as of June 2022) 2,55 million active financing contracts in Brazil.

Granting credit to students exposes the Federal Government to Fies credit risk, in the form of delays and defaults. In June 2022, the exposure value of Fies operations granted until 2017 reached R$ 107,5 billion, as shown in Chart 41, which shows, in addition to the behavior of the stock from 2019 to June 2022, its composition by year in which the financing was granted.

Chart 41 - Fies's Exposure by Year of Granting of Financing
Data in: R$ billionPosition : 06/30/2022
Source: FNDE. Elaboration: STN/SETO/ME



Late payments of financing granted until 2009 and between 2010 and 2017, counted from one day of delay, were observed in 1.665.428 contracts, equivalent to 65,3% of the total contracts. The full outstanding balance of contracts granted in arrears is R$ 68 billion, representing 63% of the total portfolio, as detailed in Chart 42.

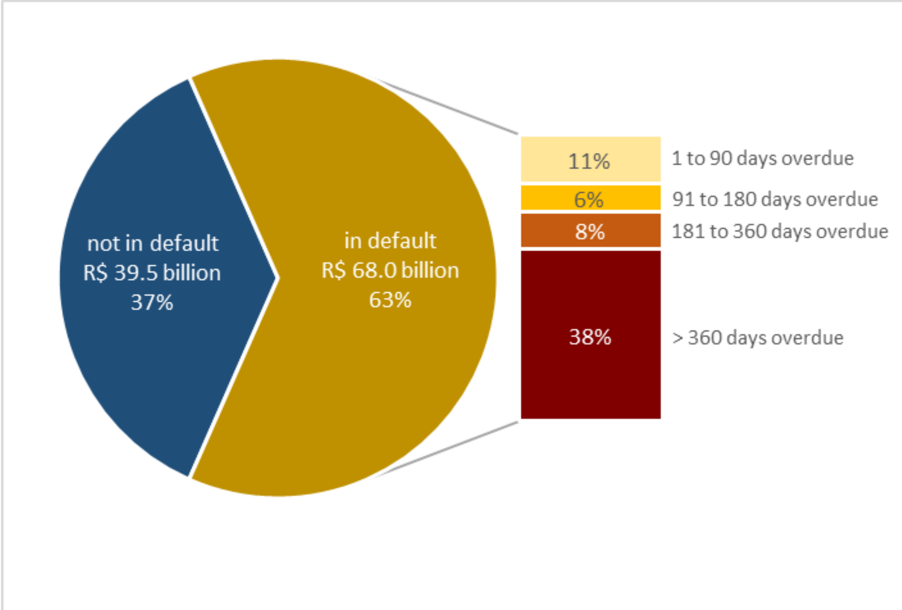
The adjustment for estimated losses on Fies contracts reached R$ 36,6 billion, segregated into long-term (R$ 36,4 billion) and short-term (R$ 0,2 billion). In June 2022, 2,1 million contracts were under amortization, with a total outstanding balance of R$ 84,3 billion.

The portfolio of financing granted under Fies is distributed in three phases, in accordance with the development provided for in the contract:

- *Utilization phase - the period during which the student is in higher education, limited to the regular duration of studies, with quarterly interest payments;*
- *Grace period - an 18-month period that starts right after the completion of the studies, with quarterly interest payments;*
- *Amortization phase - the period that begins in the month immediately following the end of the grace phase, when the monthly installment amount is established.*

However, Fies contracts until 2017 have risk mitigating instruments, such as conventional bail, joint and several bail and the Guarantee Fund for Educational Credit Operations (FGEDUC), and 68% of the contract portfolio is guaranteed exclusively by the FGEDUC. When considering the concomitant coverage by FGEDUC and by the guarantee, this percentage rises to 79% of the portfolio. It should be noted that contracts formalized until 2009 are not covered by a guarantor fund and are only guaranteed by a conventional surety or joint surety.

Chart 42 - Status of Fies Contracts Granted Until 2017
Position: 06/30/2022
Source: FNDE. Prepared by: STN/SETO/ME



As of 2018, in order to prioritize the sustainability of Fies and in compliance with the principles and regulations on fiscal responsibility, the New Fies was implemented through Law nº 13.530/2017, adopting measures to mitigate the fiscal risk of the Fund, notably related to the sharing of credit risk with the sponsoring entities and mechanisms to ensure the return on funding.

As of the entry into force of Law 14.375/2022, originated from Provisional Presidential Decree nº 1090/2021, it authorizes the renegotiation of student debts with Fies in contracts signed until the second semester of 2017. With the new law, students with overdue debts that have not been paid for more than 90 days as of the publication date of the measure (December 30th, 2021) can get a 12% discount on the cash payment, or pay the debt in 150 monthly installments, with forgiveness of interest and fines. When the debt exceeds 360 days, discounts starting at 77% may be applied. This percentage can reach 99% for debtors enrolled in the Federal Government's Single Registry for Social Programs (CadÚnico).

CG-Fies Resolution No. 27 of 2018 defined the criteria for characterization of default, credit risk, and adjustments for accounting losses.
Delinquent contracts are those with unpaid installments from the first day after expiration. Delinquent contracts are those with unpaid installments as of the ninetieth day after the due date.
The calculation of the adjustment value for accounting losses takes into consideration only the defaults verified during the amortization phase of the contract, therefore not considering the installments due during the use and grace periods. In addition, the contracts are classified according to the days of delay and then a provision factor is applied, scaled according to this classification.

More detailed information about Fies can be found at the following website:
- *https://www.fnde.gov.br/index.php/financiamento/fies-graduacao/o-fies/sobre-o-fies*

3.7 Demographic Changes

In the coming decades, Brazil will undergo a profound change in its age structure, with an increase in the number of elderly in the population and a reduction in the number of young people. Such demographic transformation poses challenges to public policies, as it directly influences the demand for different forms of state action. The case of the Continuous Cash Benefit (BPC) is illustrative. In this case, the potential effects on spending resulting from demographic transformation, for example, are significant. The aging of the Brazilian population and the increase in life expectancy, coupled with an annual increase in the minimum wage that is greater than the increase in average income, suggest that BPC expenditures are likely to increase substantially in the near future.

With regard to Education, these dynamics act favorably in the sense of generating less pressure on spending, given that the size of the young population has fallen not only in relative terms, but also in absolute terms. In education expenditures, we will consider, as a *proxy*, the so-called flow control expenditures, which correspond, in a generic way, to all expenditures in the area, except active and inactive personnel, Fund for Maintenance and Development of Basic Education–Fundeb, Salary-Education and the primary impact of FIES. Such expenditures totaled, in 2021, R$ 28,3 billion.

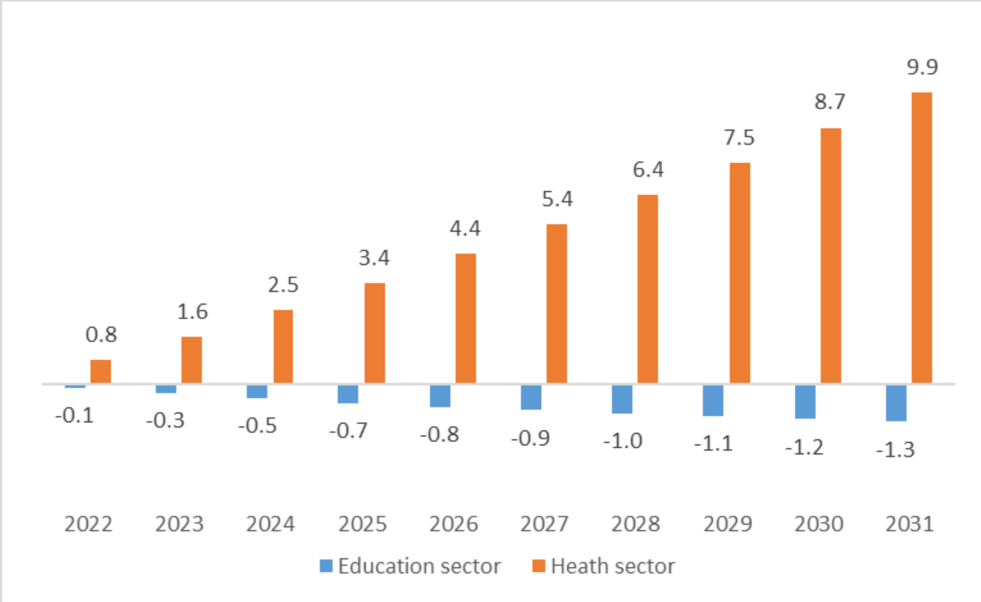
In the Health sector, on the other hand, there is strong pressure to increase expenditures due to the aging process of the population, since the older population demands proportionally more health services. In order to estimate the impact of demographic changes on health expenditures, we will analyze the Pharmaceutical Assistance block, including the Popular Pharmacy block, and the Medium and High Complexity Care block (hospital and ambulatory care), which totaled R$ 73,6 billion in 2021. Therefore, the expenditures analyzed in Health and Education together reached R$ 101,9 billion in 2021, an increase of 13% compared to that of 2020.

The Chart 43 presents an estimate of the impact of demographic changes on selected health and education expenditures in the period 2022-2031. This impact was measured as the difference between the expenditure projection considering the demographic evolution of the population (growth and change in age composition), according to IBGE projections[24] , relative to a counterfactual scenario in which the size and composition of the population remain constant at 2021 levels. These scenarios also assume as constant the current coverage of services provided and the current level of efficiency in the provision of services.

[24] IBGE. Population projections: Brazil and Federation Units: 2018 revision, 2. ed. Rio de Janeiro: IBGE, 2018.

It is observed that in the case of health there is pressure for expansion, of R$ 9,9 billion in 2031, of the expenditures resulting from demographic evolution (population growth and aging). On the other hand, the pressure for expenditures in education, of - R$ 1,3 billion in 2031, decreases according to demographic evolution and, as a consequence, it can be observed that, just for the expenditures evaluated both in health and education, there is an additional demand for public expenditures in 2031 of approximately R$ 8,6 billion at 2021 prices. This figure represents 8,5% of the amount spent in 2021 on the same programs.

Chart 43 - Demographic Impact on Selected Health and Education Expenditures
Data in: R$ billion at 2021 prices
Source and Elaboration: STN/SETO/ME



3.8 Environmental Risks

Environmental fiscal risks are those arising from disasters and natural phenomena, which can be associated with climate change or caused and originated by human activity (in the case of Covid-19). Such occurrences can affect the public accounts, affecting the trajectory and the established fiscal results.

Such risks pose great challenges for governments, and each year countries have faced an increasing number of environmentally related events. Globally, the occurrence of at least one extreme weather event per year has an estimated average cost of 0.8% of GDP.[25]

Depending on the magnitude of the events, the impact on public finances can be significant, requiring timely actions involving large resources, which can momentarily divert countries from achieving their fiscal goals. In view of this, international organizations such as the International Monetary Fund (IMF), the World Bank, and the Organization for Economic Cooperation and Development (OECD) point to natural disasters as an important source of fiscal risk.

3.8.1 Natural Disasters and Phenomena

The term disaster can be understood as "a severe disruption of the functioning of a community or society, on any scale, due to hazardous events that interact with conditions of exposure, vulnerability and capacity, leading to human, material, economic and environmental losses and/or impacts."[26]

Each country responds in a particular way to the dimensions of exposure, vulnerability and hazard characteristics it faces, and, in this sense, disasters can cause large losses, depending on geographic location, magnitude and the time interval in which such events occur, and significantly affect public finances. This is because, in the occurrence of certain disasters, it is common to expect governments to carry out actions to mitigate possible impacts, whether material or not.

Disaster contingent liabilities can be explicit, based on contracts or laws, in which there is a legal provision for payment associated with the occurrence of their risks, or implicit, when expenditures are incurred as a result of society's moral expectation that the government will act, because of political pressure or in an attempt to accelerate the economic recovery of the affected locality.

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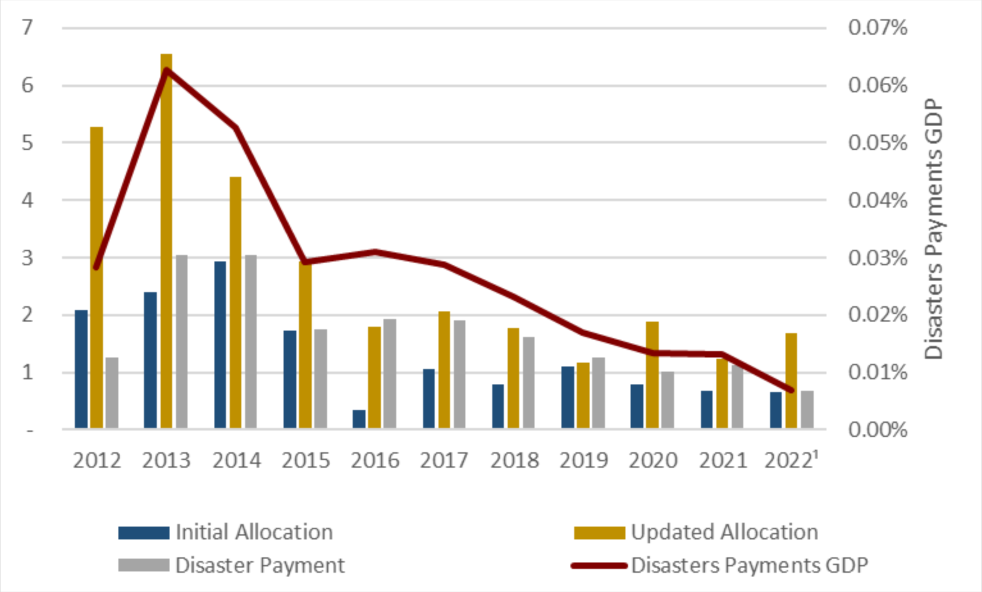
[25] Regional Climate Change. Platform of Economy and Finance Ministries, IDB, 2021.

[26] United Nations Office for Disaster Risk Reduction. Available at: https://www.undrr.org/terminology/disaster

Chart 44 - Risk and Disaster Management Program - LOA and Share of GDP
Data in: R$ billion
Source: Siafi, IBGE Elaboration: STN/SETO/ME



[1] *Position in June 2022*

In Brazil, the events associated with disasters and natural phenomena are preponderantly regionalized droughts or excess rainfall, mainly in the Northeast and South regions. Historically, the occurrence of most such events is characterized by their seasonality and their low potential to constitute unfavorable fiscal impacts, although there is often irreparable loss of life. Between the years 2012 and 2022 (June), between 0.01% and 0.06% of GDP per year were spent on actions aimed at these events, including planning and control of associated risks, as shown in Chart 44. It can be seen that, since 2016, spending on disasters has been decreasing as a proportion of GDP, despite a significant increase in the allocation for this action in 2020, in nominal terms.

The Risk and Disaster Management program (Program 2218), which appears in the LOA, is focused on prevention and control actions, as well as disaster response actions. This program is composed of several government actions that aim, among others

- identify the risks of natural disasters.
- support the reduction of natural disaster risks in critical municipalities.
- improve the coordination and management of preparation, prevention, mitigation, response, and recovery actions for civil protection and defense.
- monitoring and alerting of natural disasters.
- promote response actions to attend the affected population and recover the scenarios hit by disasters, especially through financial, material and logistical resources, complementary to the actions of the States and Municipalities.

Main rules of the legal framework for disaster risk treatment:
- Law No. 8.742/1993 - provides for the Federal Government's competence to attend to assistance actions of an emergency nature, together with the other federative entities;
- Law No. 12,340/2010 (am. Law No. 12,983/2014) - provides for transfers of Federal Government resources to agencies and entities of the federative entities for disaster prevention and response actions;
- Law No. 12,608/2012 - establishes the National Policy for Protection and Civil Defense - PNPDEC and provides for the National System for Protection and Civil Defense and the National Council for Protection and Civil Defense - CONPDEC;
- Decree No. 10,593/2020 - provides for the organization and operation of the National System for Protection and Civil Defense and the National Council for Protection and Civil Defense, and for the National Plan for Protection and Civil Defense and the National Disaster Information System.

Besides the budgetary prevision of resources in the civil protection and defense action in the Risk and Disaster Management program, it is possible for the government to make resources available via extraordinary credits in certain situations that require quick and specific action.

3.8.2 Climate Change

According to the literature, climate change can have major impacts on long-term growth and prosperity and has a direct impact on the economic welfare of countries. In addition, the measures taken around the world to address these changes are related to mitigation, adaptation, and the transition to a low-carbon economy.

In Brazil, Law no. 12.187, of December 29, 2009, established the National Policy on Climate Change - PNMC, which presents as guidelines[27] , among others, the climate change mitigation actions in line with sustainable development that are, whenever possible, measurable for their adequate quantification and verification a posteriori; the adaptation measures to reduce the adverse effects of climate change and the vulnerability of the environmental, social and economic systems; the support and encouragement of activities that effectively reduce emissions or promote removals by sinks of greenhouse gases; and, the promotion of the dissemination of information, education, training and public awareness on climate change.

Furthermore, the instruments included in the National Policy on Climate Change, foreseen in article 6 of Law No. 12.187/2009, materialize several measures to deal with the theme, from the Federal Government's point of view. In this sense, a part of such instruments is included in the Climate Change program[28] (Program 1058), which includes the following actions:

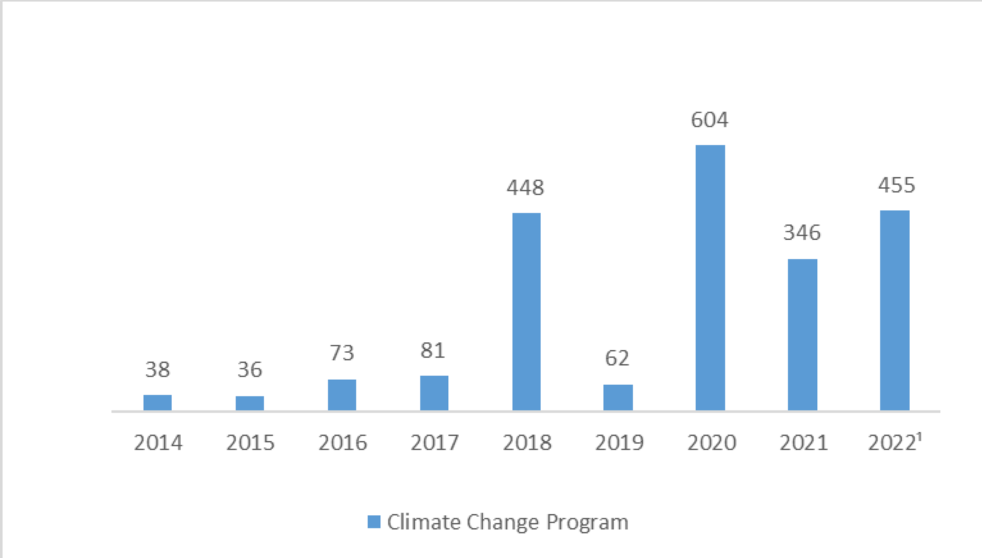
- Initiatives for Implementation and Monitoring of the National Policy on Climate Change and the Nationally Determined Contribution.
- Reducing Vulnerability to the Effects of Desertification; and
- Encouraging Studies and Projects for Mitigation and Adaptation to Climate Change.

The following are details of the amounts paid for the Climate Change program since 2014, indicating a tendency for a gradual increase in the amounts allocated to the program.

[27] Article 5 of Law No. 12,187, of December 29, 2009.

[28] Program that is part of the Annual Budget Law: Program 2050 (until the year 2019) and Program 1058 (from the year 2020 until the current period).

Chart 45 - Federal Government expenditures related to the Climate Change program (amounts paid)
Data in: R$ million



[1] Position in October 2022

3.8.3 *Combating the Effects of the Pandemic COVID-19*

For the third year in a row the federal government has implemented measures to combat the effects of the COVID-19 pandemic. By September 2022, R$ 19.4 billion have been paid out, as shown in Table 26. Expenditure this year was concentrated on additional general expenditures, mainly from the Ministry of Health, the purchase of vaccines and other supplies for pandemic prevention and control, as well as payments for emergency aid to people in vulnerable situations.

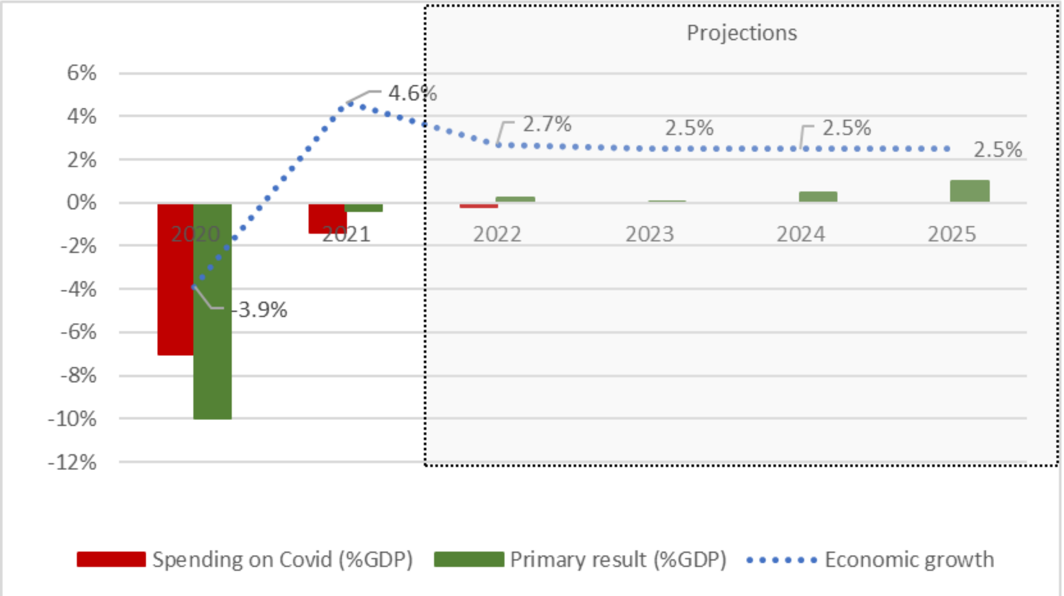
With the control and cooling of the pandemic, there is a significant reduction in spending in 2022 when compared to the spending made in the previous two years. Spending to combat the effects of the pandemic in 2022 corresponded to a total of 0.2% of the GDP, while in 2020 and 2021 it was equivalent to 7.0% and 1.4%, respectively. This reduction is due, among other factors, to the effectiveness of control measures, the increase in vaccination rates and the reduction of restrictive measures, which allowed the resumption of economic activity.

The cooling of the effects of the pandemic contributed to the resumption of economic activity, which recorded a growth of 4.6% in 2020 and has a projected growth of 2.7% for this year. The expenditures made to fight the pandemic reached significant values in previous years and should reduce and cease their amounts over the next few years, which will favor the recovery of the primary result. The Chart 46 shows the comparison between spending on fighting the pandemic as a percentage of GDP, the primary result and the level of economic activity, presenting the actual and projected values until 2025.

Table 26 - Federal Government Expenditure in the Fight against COVID-19
Data in: R$ billion Position: 09/2022
Elaboration: STN/SETO/ME

COVID-19 expenditures	2022		
	Expected	Paid	%
Emergency aid for Vulnerable People	5.7	4.0	70.8%
Additional Expenses of the Ministry of Health and Other Ministries	13.6	9.2	67.7%
Purchase of Vaccines and Inputs for the Prevention and Control	9.2	6.2	67.0%
Emergency Benefit of Employment and Income Maintenance	0.2	-	0.0%
Total	**28.6**	**19.4**	**67.7%**

Chart 46 - Comparison of: Covid-19 spending (as % GDP); Primary outcome and Economic growth
Source and elaboration: STN/SETO/ME



More detailed information about the monitoring of the Federal Government's spending on COVID-19 can be found at the following web-site: https://www.tesourotransparente.gov.br/visualizacao/painel-de-monitoramentos-dos-gastos-com-covid-19.