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Public Debt and Liquidity Management in Brazil: institutional complementarity and the dynamics of gross debt and securities debt

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Abstract: The article initially presents evidence about the growth dynamics of DPMFi, the main component of DBGG, between 2011 and 2019. This dynamic occurred predominantly by the incorporation of the interest rate service even when the redemption of securities was higher than the issuance of securities and a primary surplus was obtained. Paradoxically, the growth of the stock dd DPMFi occurred jointly with the continuous expansion of the money value held as bank deposits in the *Single Treasury Accoun*t at the Central Bank This expansion took place independent of the primary result obtained in the period considered. The evidence also suggests that the use of these funds of the Single Treasury Account to accelerate the rescue of DPMFi was limited by the control of the liquidity necessary to keep the Selic rate at a structurally high level, which proved necessary to achieve the inflation target. This implied the expansion of REPO operations, which, in turn, also increased the interest rate service.

Palavras-Chave: Dívida Pública, Taxa de Juros, Sustentabilidade Fiscal.

Keywords: Public Debt, Interest Rate, Fiscal Sustainability.

JEL Code: E52, E63, H6

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1. Introduction

The resolution of the Brazilian fiscal crisis has been centred on the debate on the adjustment of primary public sector expenditures (Almeida, 2015; Pires and Borges, 2016; Almeida, Lisbon and Pessoa, 2015). This centrality is justified by the tendency for these expenditures to expand above GDP growth, mainly due to the progressive implementation of social rights provided for in the Federal Constitution of 1988.[1] Therefore, these expenditures would grow at rates higher than the capacity to increase tax revenue, which would make it the intertemporal trajectory of public debt is unsustainable. The dominant economic policy prescription for this situation is the "structural" fiscal adjustment of primary expenditures, in order to reduce them as a proportion of GDP (Almeida, Lisboa and Pessoa, 2015). This diagnosis supported the approval of Constitutional Amendment No. 95, of 2016, which established the "spending ceiling" as a fiscal rule, which would guarantee the reduction of primary expenditure as a proportion of GDP throughout its term, due to the correction only by the inflation of these expenditures, while the national income would increase by the nominal variation plus the real growth of the GDP.

However, the debate on the "structural" adjustment, made from the exclusive point of view of primary expenditures, touches on or avoids the issue of the fiscal cost with the interest service of the Gross Government Debt in General (GGGD) – resulting from the rollover of the domestic Federal Public Securities Debt (DPMFi)[2] and repo operations – as a factor that operates against the fiscal balance of the Brazilian State. This service systematically pressures the expansion of the public debt stock by incorporating it into a portion of the interest service, even in periods of primary surplus (Bresser-Pereira and Nakano, 2002; Bresser-Pereira, 2007). To this fiscal cost of a strictly financial nature is added the burden arising from the exchange rate policy, through exchange *swap* operations. These operations can result in losses, especially in the reversal of the economic cycle, and are ultimately assumed by the National Treasury (Magalhães and Costa, 2018).

[1] For a recent discussion of the evolution of primary expenditures, see Pires and Borges (2019). These authors point out that the growth in primary expenditures occurred mainly due to the impact of the increase in the minimum wage on social security spending. For a comparative analysis of the empirical results of different metrics of primary expenditures in the Brazilian case, see Magalhães and Costa (2018).

[2] Under the GGGD concept, DPMFi and repo operations represented 66.3% and 17.3%, respectively, of the debt stock in December 2019. Unlike other periods of Brazilian economic history, the Brazilian public debt is currently, in its vast totality, internal and denominated in reais. For a presentation of the different concepts of public debt and its metrics, see Silva and Medeiros (2009).

The surprising thing in the Brazilian case is that, despite the most recent cycle of reduction of the Selic rate, from October 2016 to March 2021, the fiscal cost of servicing interest with the GGGD and repo operations remain high, which makes it difficult for the government to balance the government in general and, therefore, ~~to~~ ensure a path of solvency of the public debt. The interest service of the GGGD corresponded to 5.5% of GDP in 2019. This financial cost referred to a GGGD that reached 74.3% of GDP in December of the same year (BCB, 2019).

The international comparison of the interest service of the public debt points to the weight of this financial expense in the Brazilian case, when compared to countries that went through serious fiscal problems because of the 2008 crisis, such as, for example, Greece. This country had a gross interest service of 3.0% in relation to GDP with a gross debt/GDP ratio of 180.5%.[3]

The DBGG interest service projections for Brazil indicated that the interest service would remain between 4.8% and 6.5% in the period from 2020 to 2029.[4] In other words, the interest service cost will be an important current expense that will pressure the availability of budgetary resources for the General Government. This fiscal cost imposes the recurrent need to generate high primary surpluses and/or reduce primary spending to ensure the sustainability of the public debt. Thus, the importance of these current financial expenditures cannot be neglected, which hinder the sustainability of the domestic federal public debt and, in general, contribute to the Brazilian economy presenting low growth rates of *per capita income, as it compromises the capacity of the Central Government to invest in economic infrastructure with a negative impact on the productivity of the economy.*[5]

In view of the above, the general objective of this work is to analyze the determinants of the growth of the DPMFi, initially evaluating the constraints of the GGGD

[3] See *Economic Outlook* No 108, OECD, Dec. 2020.for international comparisons of the gross debt/GDP and interest service indicator.

[4]See the Public Debt Projections Report of the National Treasury Secretariat (2020).

[5] On the problem of public investment in Brazil, especially by the Central Government, see Magalhães, Araujo and Kolai, (2022).

in Brazil between 2011 and 2019,[6] as well as the institutional complementarities[7] of public debt management and liquidity that affect the fiscal cost. These conditioning factors and their impacts on the growth dynamics of the public debt, especially when analysing the domestic Federal Public Securities Debt (DPMFi) - the main component in the GGGD - affect a fiscal strategy for the sustainability of the public debt that considers only the control of primary expenditure. From this perspective, the fiscal cost of public debt management and its relations with liquidity control - often little explained in the public and academic debate on public debt - are objects of analysis in this work.

This article is organized as follows, in addition to this introduction. The second section presents an analysis of the conditioning factors of the evolution of the General Government Gross Debt (GGGD) indicator over GDP, between 2011 and 2019, including breaking down the conditioning factors of the interest rate and nominal GDP into their real and nominal components. Section three also discusses the dynamics of DPMFi, the main liability of the GGGD, in order to assess the effects of redemptions/issuances and interest services on the evolution of the stock of domestic securities debt. Finally, a section is presented, by way of conclusion, that summarizes the main empirical findings of the article, emphasizing their implications for overcoming the current trap of low growth of the Brazilian economy, which perpetuates anaemic economic growth rates, reduced productivity of capital and labour

1. Evolution of the GGGD/GDP indicator: decomposition of conditioning factors

The GGGD has become, almost consensually, in the domestic financial market and in the federal public sector, the best indicator to measure the country's fiscal effort and, therefore, the sustainability of the public debt. The justifications for choosing this metric is that it would be less subject to three types of distortions in the Brazilian case. This indicator would not be distorted by the capitalizations of public banks, especially BNDES, through issues of DPMFi bonds that are only included as liabilities in the GGGD metric. It would also not be affected by valuation limitations and liquidity problems of public sector

[6] Due to the economic effects of the Covid-19 pandemic, 2020 and 2021 were not considered, as emergency fiscal measures were taken that were financed with the issuance of DPMFi bonds, which distorts the dynamics of public debt and its fiscal cost. For a description and analysis of fiscal and monetary measures against the economic impacts of the Covid-19 pandemic in the Brazilian case, see Silva (2020).

[7] According to Hall and Soskice (2001), institutional complementarity refers to the adequacy of the operation of an institution in relation to the others in a given economic domain. An important attribute of institutional complementarity is to configure a regime of incentives and restrictions on the behaviour of economic agents (Amitrano, 2011). This paper emphasizes that the institutional complementarities of public debt management, liquidity and exchange rate maximize the costs incurred by the National Treasury with the financial market.

assets, such as foreign exchange reserves. And yet, it would not suffer distortions caused by the possibility of postponing the accounting of expenses by the use of expenses classified as remains to be paid. However, it is worth noting that its adoption has been criticized in the recent economic literature, because, among other limitations, this indicator does not consider the net present value of future GDP (Furman and Summers, 2020).[8]

If it is accepted that the GGGD/GDP[9] is effectively the best metric to measure the ~~fiscal~~ performance effort of the Brazilian State, especially in relation to the sustainability of the public debt, its conditioning factors can be evaluated based on information from the Central Bank of Brazil (BCB). This information is shown in Table 1 for the period 2011 to 2019. The following are considered as conditioning factors for the evolution of this indicator: i) net issuances of government securities; ii) the nominal interest burden; iii) the variations resulting from exchange rate fluctuation and the effect of privatizations; iv) the recognition of debt; and, also, v) the nominal variation of the GDP.

For the conditioning factors with the greatest impact on the variation of the GGGD/GDP indicator – the payment of nominal interest and GDP growth – the effects of inflation and real variation were decomposed.[10] This allows us to isolate the impact of inflation on these factors and, therefore, on the evolution of the gross debt indicator. Table 1 disregards the cross-effect of decomposition because it is residual with a non-significant value.

In turn, the "net issuance" factor encompasses the issuance and redemption of domestic and foreign debt, calculated by a set of financial operations of the National Treasury (TN) and BCB. This conditioning factor is basically composed of

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[8] In addition, the recent criticism by Furman and Summers (2020.), the international comparisons of different public debt metrics, suggest that net debt is more relevant for emerging economies in relation to the determination of country risk, long-term domestic interest rate, debt rollover cost, and the probability of *default*, see Hadzi-Vaskov and Ricci (2016) and Henao-Arbelaez and Sobrinho (2017).

[9] It should be noted that the Brazilian Central Bank is prohibited from issuing securities for liquidity management – a prohibition contained in article 34 of Complementary Law No. 101/2000 – which was combined with the absence of voluntary interest-bearing deposits, which only had a legal provision with the approval of Law No. 14,185/2021. As a result, the DGBB computes the DPMFi securities, transferred by the National Treasury to the BCB, which are used in repo operations to control liquidity. This accounting refers only to the securities of repo operations in the market and not in the BCB's portfolio.

[10] The decomposition of the nominal and real effects of the conditioning factors of the interest rate and GDP are obtained by the usual formula: Δyt-1= [x/(1+p) (1+x)].yt-1 +[p/(1+p) (1+x)].yt-1 + [x.p/(1+p) (1+x)].yt-1, in which the first term of the formula is the real contribution of the economic variable x, the second term the contribution of inflation p and the third term is the cross-contribution of the variable x and of inflation p, respectively, for Δyt-1.

issuances/redemptions of government securities for the following purposes: i) acquisition of international reserves; ii) loans from the National Treasury to federal public banks backed by public securities; iii) effect on the issuances/redemptions of the primary surplus/deficit; and, finally, iv) other TN and BCB financial operations.

Table 1 – Conditioning factors for the evolution of the GGGD/GDP indicator, 2011 to 2019

(As % off GDP)

Factor discrimination	2011	2012	2013	2014	2015	2016	2017	2018	2019
1. GGGD Growth Factors									
1.1. Financing need	4,9	6,8	2,7	8,3	9,7	7,9	7,1	5,4	2,9
1.1.1. Net Emissions	-0,9	1,6	-2,5	2,9	2,3	-0,3	0,4	-0,5	-2,6
1.1.2. Nominal interest (1)	5,8	5,2	5,1	5,4	7,5	8,2	6,7	5,91	5,5
1.1.2.1. Real Interest	2,6	2,2	2,1	2,2	1,3	4,0	4,6	3,0	2,3
1.1.2.2. Monetary Corrections	3,0	2,8	2,7	3,3	6,2	3,9	2,0	2,6	3,0
1.2. Exchange Rate Adjustments and others	0,3	0,2	0,4	0,4	1,5	-0,8	0,1	0,6	0,1
1.3. Privatizations and recognition of debts.	0,2	0,1	0,0	0,0	0,1	0,1	0,1	0,0	0,1
Total	5,4	7,1	3,1	8,8	11,4	7,2	7,3	6,0	3,1
2. Effect of GDP growth (2)	-5,8	-4,7	-5,2	-4,0	-2,0	-2,9	-3,3	-4,4	-4,1
2.1. Real Growth	-1,8	-0,9	-1,5	-0,24	1,9	2,1	-0,9	-1,2	-1,0
2.2. Implicit Deflator	-3,8	-3,7	-3,6	-3,7	-4,1	-5,1	-2,4	-3,1	-3,0
Variation in debt in the year: (1+2)	-0,4	2,4	-2,1	4,7	9,4	4,3	4,0	1,6	-1,0
General Government Gross Debt	**51,3**	**53,7**	**51,5**	**56,3**	**65,5**	**69,8**	**73,7**	**75,3**	**74,3**

Source: BCB - Fiscal Statistics. Elaborated by the authors.
Notes: 1) decomposition of the real effect and the inflation adjustment by the IPCA.
2) decomposition of the real effect and inflation by the Implicit GDP Deflator.

Therefore, the "net issuance" factor, which conditions the evolution of the GGGD/GDP, is composed of a series of financial operations that reflect different changes in the assets and liabilities of the General Government. These changes result from economic policy, in particular fiscal, monetary, exchange rate and credit policies, adopted in the period analyzed. Its real and inflationary effect was not decomposed, since the "net issuances" aggregate different operating results of the Government's economic and financial variables in general, ranging from the primary surplus/deficit target to the policy of acquiring international reserves. This makes it relatively arbitrary to choose a measure of inflation to break down the actual effects and changes in price levels. In addition, the aggregate impact of the "net issuance" factor is significantly smaller in the evolution of the GGGD/GDP indicator than the effects of the interest rate and nominal GDP growth, which allow a univocal economic interpretation of this decomposition.

Table 1, therefore, shows that nominal interest - measured by the implicit interest rate of the DGBB - was the most important cause for the increase in the GGGD/GDP ratio between 2011 and 2019. If we consider the annual average of nominal interest to the increase in this indicator, the contribution was around 6% p.a. And its variation is closely associated with the Selic rate cycle, since the basic interest rate of the Brazilian economy places a minimum floor for the other interest rates that are levied on the liabilities of the Brazilian public sector (Magalhães e Costa, 2018) and, consequently, the implicit interest rate of the GGGD. Therefore, the increase/decrease in the Selic rate, given the trajectory of inflation, implies an increase/decrease in the nominal interest contribution in the evolution of the GGGD/GDP indicator. This is not surprising, as the securities debt on the market, added to repo operations, represented 83.6% of the total GGGD in December 2019 (BCB, 2020).

The contribution of nominal interest service to the deterioration of the GGGD/GDP indicator should be analyzed, then, separating the incidence of real interest from the inflationary effect, since the high nominal interest burden, which can be observed in Table 1, may result solely from the persistence of high inflation in the Brazilian economy. Therefore, these effects were decomposed using the inflation measured by the IPCA-IBGE. The justification for the use of this price index is that the IPCA[11] and its expectation are used as a usual measure to calculate the real profitability of the loading of DPMFi bonds[12] and, consequently, of the forward curve of the interest rate of these government bonds. It is for no other reason that one of the post-fixed government securities, with an important participation in the portfolio in the market, is the NTN-B with indexation to the IPCA.

The decomposition of nominal interests, as shown in Table 1, indicates that inflation has a significant effect on the nominal interest burden that affects the GGGD/GDP indicator; on

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[11] For a presentation and discussion of the pricing methods of pre-fixed and post-fixed securities in the Brazilian case and the use of the IPCA and future inflation expectations of this index, see Tavares and Tavares (2009).

[12] It is worth remembering that the IPCA projection is one of the most important pieces of information contained in the Focus Bulletin. This Bulletin collects financial market forecasts on the behavior of the most relevant variables of the Brazilian economy for the financial market, and is one of the sources of information that the Copom evaluates to determine the Selic rate in the inflation targeting regime.

an annual average, its contribution was 3.3 p.p. of GDP to the increase in this indicator. Thus, the evolution of the IPCA has a relevant effect - around 60% - on the inflation adjustment component that makes up the nominal interest contribution, as shown in Table 1. However, the contribution of real interest to the evolution of the GGGD/GDP is also significant, as it corresponds to about 40% of the contribution of the nominal interest burden in the variations in the gross indebtedness indicator. The real interest component contributed, on an annual average, with 2.3 p.p. of GDP to the increase in the DGBB/GDP indicator in the period analyzed.

The second most relevant factor to determine the evolution of the GGGD/GDP indicator is the evolution of nominal GDP, between 2011 and 2019. The annual average contribution of nominal GDP growth to the reduction of this indicator was 4.1% p.a. When analysing the contribution of the variation in nominal GDP, separating real growth and inflation - measured by the Implicit GDP Deflator - in the reduction of GGGD/GDP, it is observed that on average the effect of real growth was -0.4% p.a. and inflation of -3.6% p.a. The effect of real GDP growth was significantly reduced by the semi-stagnation and recession of the Brazilian economy in the period considered. As expected, the effect of this factor on the reduction of the GGGD/GDP ratio is significantly reversed in the recession years of 2015 and 2016, as shown in Table 1.

Thus, the low growth of the Brazilian economy is a factor that affects the sustainability of public debt, understood as a situation in which the public debt/GDP ratio is constant or decreasing over time (Oreiro, 2004). To do so, the following condition must be met: ; where s is the primary surplus as a proportion of GDP; r is the real interest rate; g is the real GDP growth rate; and d is the stock of public debt as a proportion of GDP. The primary surplus depends on both GDP growth, which affects tax collection, and primary expenditure growth. In addition, the sustainability of public debt depends not only on the size of the primary surplus, but also on the relationship between the real interest rate and the real GDP growth rate. If $\mathrm{s} \geq (\mathrm{r} - \mathrm{g}).\mathrm{d}/(1 + \mathrm{g})$; $g>r$ the general government can operate with a primary deficit and still respect the condition of public debt sustainability.

The third conditioning factor in terms of relevance to explain the evolution of the GGGD/GDP indicator is the "net issuances", which encompass, as mentioned above, different operations resulting from the monetary, fiscal and credit policies executed by the National Treasury and Bacen. Table 1 shows that the effect of this factor on the evolution of the GGGD/GDP indicator fluctuated significantly between 2011 and 2019. In the final calculation, the contribution of accumulated "net emissions" to the variation of the GGGD/GDP indicator was positive, but reduced, its average annual contribution was 0.4 p.p. to this indicator between 2011 and 2019. Thus, the cumulative effect of "net issuances" did not significantly affect the evolution of the indebtedness indicator, as the trend was to cancel out the positive and negative effects of this factor conditioning the GGGD/GDP in the period considered.

It is evident that the behaviour of the financial and economic variables that make up this conditioning factor were very different over the period considered in Table 1.[13] The issuance of public bonds for the financing of federal public banks, especially BNDES, was significant, at least until 2014, which contributed positively to the increase in the GGGD/GDP ratio. Likewise, the acquisition of international reserves continued to pressure the growth of the gross debt indicator[14] , even with a tendency to reduce its impacts from 2011 onwards. Finally, the primary results of the General Government were relevant in neutralizing the effects of the acquisition of reserves and the capitalization of federal public banks on the growth of the GGGD/GDP indicator.[15] This effect is reversed when the government in general begins to present current primary deficits from 2014 onwards.

However, it is necessary to evaluate more closely how the primary results of the General Government impact the trajectory of gross indebtedness due to *the particularities of the institutional arrangement of public debt management and liquidity in the Brazilian case*, in a monetary policy regime in which the basic interest rate is structurally high[16]. In principle, the primary surplus should be used to redeem DPMFi bonds; although it can, alternatively, be deposited in the Single Account of the National Treasury. When public securities debt securities are redeemed in advance and/or at maturity, the counterpart is the expansion of the monetary base.

[13] For a more detailed analysis of the evolution of the financial-economic variables that make up the conditioning factor "net issuances" of GGGD/GDP, between 2006 and 2017, see BCB (2018).

[14] However, the accumulation of reserves increases the GGGD has an indirect effect of providing financial gains for the BCB in the event of exchange rate devaluation, which was automatically reverted to the National Treasury by the BCB's exchange equalization account until May 2019.

[15]The contribution of the General Government's primary surpluses to the reduction of the DGBB stock was -6.4 p.p. of GDP between 2011 and 2014, when the Central Government began to record primary deficits. This value cannot be disregarded. However, in the same period, the contribution of nominal interests was 21.5 p.p. of GDP, see BCB (op. cit., p. 25).

[16] In this regard, see Oreiro and De Paula (2021, chapter 2).

The BCB, therefore, is obliged to resort to repo operations to contract the monetary base. These operations are carried out with government bonds of the National Treasury, transferred to the portfolio of the Monetary Authority, with the objective of making the Selic *over* rate, formed in the bank reserve market, close to the target Selic rate set by the Copom. These operations allow the monetary base to be contracted in order to achieve the inflation target established, in turn, by the National Monetary Council (CMN).

In the case of Brazil, the Selic rate is abnormally high when compared to other countries with the same sovereign risk and *per capita income* (Bresser-Pereira and Nakano, 2002; Bresser-Pereira, 2007; Oreiro and De Paula, 2021, chapter 2). Although it is a topic subject to debate,[17] two factors, which can be considered complementary, would explain this "anomaly" of the domestic basic interest rate. The first concerns the permanence of a public bond, the Treasury Financial Bill (LFT), indexed to the Selic rate and with a high participation in the DPMFi, which would reduce the effectiveness of monetary policy in combating inflation.[18] Thus, the Selic rate has to be set at high levels to bring inflation to the centre of the target. In addition, the resilience of indexation mechanisms in the Brazilian economy also contributes to the loss of efficiency of monetary policy, as inflation has a still significant inertial component, and is therefore less sensitive to the increase in the basic interest rate (Oreiro and Santos, 2023).

The factors listed above explain, however, *the dosage of monetary tightening*, that is, the difference between the effective interest rate and the equilibrium interest rate, necessary to bring inflation to the target set by the National Monetary Council. Taking the equilibrium interest rate for an economy with an open capital account to be equal to the sum between the real interest rate on 5-year T-notes and the country risk premium measured by J.P. Morgan's EMBI+; Oreiro and De Paula (2021, p.70) estimate that the dosage of monetary tightening was 257 b.p. in the period 2003-2016. Disregarding the monetary tightening component, however, *the equilibrium real interest rate would be 3.68% p.a.* for the average of the period under consideration. Given the high participation of LFTs in the GGGD, which is a security free of market risk, this is an excessively high value for the equilibrium interest rate.

[17] For a critical review of the different explanations in the economic literature of the abnormally high basic interest rate in the Brazilian case, see Barbosa (2015).

[18] The discussion of the loss of efficiency of monetary policy due to the high percentage of LFTs in the composition of the DPMFi is made by an extensive domestic economic literature. For a review of this literature, see Dornelas and Terra (2021).

An explanation for this anomaly can be given by the concept of a safe interest rate presented by Keynes in chapter 15 of his General Theory of Employment, Interest and Money (1936). Keynes defines the safe interest rate as the prevailing convention among the agents operating in the financial market regarding the long-term value of the interest rate (Keynes, 1936, p.203). When the short-term interest rate is below the value considered safe in the long term by financial market agents, then they will anticipate an increase in the short-term interest rate in subsequent periods. Given that the long-term interest rate is the harmonious average between the current value of the short-term interest rate and the expectations formulated in the current period for the values of the short-term interest rate over the entire maturity of the securities; It follows that the long-term interest rate will ultimately be determined by the prevailing convention over the safe value of the interest rate[19]. The safe interest rate in Brazil, although it has shown some downward trend in the last 20 years, has been shown to be very high due to the formation of a pro-conservatism convention in monetary policy (Bresser-Pereira and Nakano, 2002; Bresser-Pereira, Paula and Bruno, 2019). This convention is anchored in a coalition of interests formed by a class of rentiers (capitalists, consultants, and financial market professionals), who receive income derived from interest and other operations with financial assets (Bresser-Pereira, 2018; Bresser-Pereira, Paula and Bruno, 2019). This coalition of interests would be able to form a convention, with normative force, for the BCB to set the Selic rate at high levels.[20]

The result of the "anomaly" of the basic interest rate of the Brazilian economy is that this rate places a high minimum floor for the implicit nominal interest rate that is levied on the liabilities of the GGGD. However, this "anomaly" has yet another effect in terms of fiscal cost that arises from the management of the liquidity of the Brazilian economy. If the primary surplus is used to reduce the stock of DPMFi securities, the counterpart is the expansion of the monetary base, which requires its control through repo operations.[21] These operations are short-term and renumbered at a rate similar to the Selic rate. Thus, as the Selic rate is structurally high for the reasons previously presented, then it is necessary for the BCB to resort to significant volumes of repo operations to maintain the Selic-target

[19] In this regard, see Modenesi *et al.* (2013)

[20] It should be noted that the rentier coalition reproduces this convention of high interest rates through different mechanisms of capture of the Monetary Authority, including the "revolving *door*" of public sector employees to the private financial market and vice versa, as discussed by Brezis and Cariolle (2018).

[21] For a description of the different economic and financial characteristics of repo operations, see Pellegrini (2017).

established by the Copom, in the absence of another liquidity control instrument[22]. In other words, there is an institutional complementarity between the redemption operations of DPMFi securities and the repo operations that negatively impact the costs incurred by the National Treasury.

Thus, the National Treasury is faced with a restriction for the reduction of the stock of DPMFi securities in the event of the use of the primary surplus and/or non-earmarked resources deposited in the Single Account,[23] due to the level of the Selic rate and the conditions of the financial market – in terms of profitability and terms required for the absorption of securities – that put a *trade-off* between the expansion of repo operations and the redemption of government bonds (Golbetti and Schettini, 2010). This is more true insofar as the Selic rate must be set at a sufficiently high level to be effective against inflation. The effect of the increase in the Selic rate may result in a significant expansion of repo operations, in the hypothesis of acceleration of the redemption of DPMFi securities, which have a fiscal cost similar to Selic-indexed securities (LFT), but with a shorter average redemption period (Pellegrini, 2017).

3. The Dynamics of the DPMFi and the Single Account: interest services and the issuance/redemption of government bonds in the market

The considerations in the previous section point to an aspect that is often neglected in the debate on the fiscal problem of the Brazilian State: its **financial component**. This component is expressed in the interest service of the DPMFi, repo operations and in the financial expense derived from operations with exchange *swap contracts* . From this perspective, the resolution of the Brazilian fiscal problem cannot be restricted only to measures to contain and improve the quality of primary spending, due to the importance of its financial component in the dynamics of the DPMFi and, therefore, in the GGGD.

This aspect of the fiscal problem of the Brazilian public sector becomes clearer with the information in Table 2, which shows how the stock of the DPMFi evolved in the period considered. It is also important to remember that two-thirds of the GGGD was made up of

[22] This problem may be significantly reduced in the near future given the approval on July 14, 2021 of Law 14,185, which created the instrument of voluntary interest-bearing deposits at the Central Bank as an alternative instrument for liquidity control. These deposits will not be accounted for as part of the GGGD, thus allowing liquidity management by the Central Bank to be dissociated from public debt management by the National Treasury Secretary.

[23]It is worth noting that the availability of the Single Account for the redemption of DPMFi securities in the market was also linked during the term of Law 11,803/2008. The financial gains from the exchange devaluation of international reserves were obligatorily linked to the redemption of public debt securities, with priority given to those in the BCB's portfolio.

the stock of DPMFi securities at the end of 2019. Therefore, most of the interest burden that impacted the evolution of the GGGD/GDP indicator, as seen in Table 1, was due to the implicit interest rate of the DPMFi, which expresses a weighted average of the interest rates of the different federal government securities in the market.

Table 2 shows the annual variation in the stock of DPMFi as a result of the issuance/redemption operations in the government securities market and the payment of real interest and the monetary adjustment of these securities. This table also includes the variations in the stock of funds deposited in the Single Account of the National Treasury at the BCB. Part of this Account is the so-called "liquidity cushion" that the National Treasury reserves for the payment of amortization and interest service of the DPMFi. Thus, this reserve of availability of the Single Account (CTU) is one of the main mechanisms for managing public debt, especially the DPMFi, as it allows the National Treasury not to sanction, in times of instability and macroeconomic uncertainty, the interest rates and terms requested by the financial market for the absorption of public securities.

As Table 2 also shows, between 2011 and 2014, the trend was for redemption of government bonds higher than their issuance. This occurred even from 2014, when the Central Government began to present current primary deficits. This behaviour of redemption greater than emissions occurred even in 2016 and 2018, years when the Central Government had a primary deficit. The availability of the liquidity cushion of the Single Account allowed this redemption even with the negative primary result. But what draws attention is that there was an increase in the stock of DPMFi in all the years considered. This stock went from R$1,603.9 billion to R$3,728.9 billion, between 2011 and 2019, a variation in nominal terms of 132.6% against an accumulated inflation, measured by the IPCA, of 66.4% in the same period. This variation in the DPMFi occurred due to the incorporation of real interest rates and monetary adjustment that are levied on the stock of government securities in the market. This dynamic of growth of the DPMFi was also dominant in the years that the primary surplus of the Central Government was observed.

Table 2 – Dynamics of the DPMFi and the Single Account: conditioning factors, 2011 to 2019

(In current R$ billions)

DPMFi	2011	2012	2013	2014	2015	2016	2017	2018	2019
Stock	1.603,9	1.783,1	1.916,7	2.028,1	2.183,6	2.650,2	2.986,4	3.435,5	3.728,9
Nominal Change	179,1	133,6	111,4	155,5	466,6	336,2	449,1	293,4	354,4
Emissions (+)[1]	434,0	513,0	467,7	553,2	856,4	708,8	720,6	656,9	738,1
Rescues (-)	451,0	573,2	551,4	621,1	706,6	717,2	585,8	677,3	698,8
Appropriated Interest[2]	196,2	193,8	195,1	224,4	316,7	344,7	315,2	315,5	316,2
Single Account	475,6	620,4	656,0	605,9	881,9	1.039,8	1.079,7	1.274,9	1.438,8

Sources: BCB and National Treasury. Elaborations by the authors.

1 – Issuance of DPMFi securities that occur through auctions, through the Treasury Direct Program and through portfolio transfer with the Central Bank. They do not include the exchange/exchange of securities. It also incorporates the issuances to meet the Agrarian Reform Programs (TDA), PROEX, FIES, PND, PESA and FUNAD and the issuances for specific purposes authorized by law. It also includes securitized debt; From January 2011 onwards, gross emissions were considered, discriminating cancellations. The redemptions consider the payments of amortizations and interest of the DPMFi under the responsibility of the National Treasury in the market. They do not include the exchange/exchange of securities.

2 – Includes the monetary adjustment of the principal and the appropriation of real interest on the DPMFi securities.

In summary, the variation in the DPMFi stock was positive even in the years in which there was a greater amount of redemptions than issuances.[24] In other words, the interest service of the DPMFi always exceeded the difference between issuances and redemptions even when it was negative. This forced the placement of bonds by the National Treasury to finance interest service. Therefore, the growth dynamics of DPMFi, the main liability of the GGGD, was determined by the incorporation of the nominal interest service, a component of a strictly financial nature, despite the fact that the current primary surplus

[24] In the Brazilian case, an important aspect of the management of the DPMFi is that interest is calculated according to the *"accrual criterion, that is, interest is accounted for pro rata, in which the amounts due are accounted for, regardless of the occurrence of payments in the period"* (Silva and Medeiros,209, p.102). In this way, the interest not paid by the cash criterion is accounted for as a liability of the public sector with the private sector.

was calculated between 2011 and 2013. Evidently, the reversal of the primary surpluses from 2014 onwards had a negative impact on the growth dynamics of the DPMFi, but the relevant point is that its growth trajectory was determined by its financial cost component, as seen in Table 2.

Another aspect that draws attention in Table 2 is the almost uninterrupted growth, with the exception of 2014, of deposits from the Single Account, between 2011 and 2019. Deposits went from R$475.6 to R$1,438.8 billion, which means a nominal growth of 202% in the same period. That is, a growth much higher than the DPMFi stock. This occurred even in years in which the primary deficit was calculated, which did not prevent the continuity of the expansion of the availability of the Single Account. The question that arises is why was the largest volume of resources from the Single Account not used to accelerate the redemption of securities?

A first explanation is that accelerating the redemption of bonds implies increasing the liquidity of the economy, as previously mentioned. The expansion of liquidity makes it difficult to maintain the level of the Selic rate that the BCB considers necessary to obtain the inflation target. Given the relative ineffectiveness of monetary policy and the conservative convention on the basic interest rate of the Brazilian economy, the Selic rate should be set at a high level for inflation to converge to the target. Therefore, it is worth emphasizing, the redemption of a larger amount of DPMFi securities implies the expansion of repo operations, which have a shorter term and practically identical renumeration of an LFT. These operations can become an advantageous substitute for this security in the financial market, as repos allow the shortening of the term in relation to the loading of LFT.

The consequence is that liquidity management – with the structurally high Selic target rate – puts a brake on a more aggressive policy of redemptions of DPMFi securities, in the presence of other factors of expansion of the monetary base by the National Treasury. This implies additional problems in the Brazilian case of coordination between monetary and fiscal policy, due to the *trade-off* between financial costs and the shortening of terms in the redemption of government securities through repo operations.

A second explanation concerns the restrictions on the use of the resources of the Single Account because of its composition of deposit sources, or its inadequate use to finance primary expenditures (Guardia, 2017). One limitation would be the use of financial surpluses from sources of funds, usually taxes, which have legal constraints of application, such as, for example, the constitutional provisions for spending on health and education or federative transfers. These linkages would prevent the use of the financial surpluses of the Single Account for the amortization and payment of interest on government bonds in the market.

Another problem would be the use of resources from the Single Account to pay primary expenses to the detriment of the redemption of the public debt. However, there does not seem to be a rigidity of spending linkages and/or undue flexibility (the so-called "creative accounting") of the resources of the Single Account that have prevented the expansion of the redemption of DPMFi in the market, in the period examined. On the contrary, the evolution of the deposits of the Single Account and, in particular, of the liquidity cushion,[25] would not authorize an interpretation of this nature.

A first observation is that EC No. 95/2016 limited the growth of expenses with constitutional bonds, even in the areas of health and education, to its update by the IPCA. It is worth remembering that this Constitutional Amendment removed payments linked to the public debt from the spending ceiling. Therefore, the significant growth of the Single Account, at least from 2017 onwards, could not be explained by an excessive rigidity of linkages that would prevent the use of financial surpluses to accelerate the redemption of DPMFi bonds. In addition, the control of primary expenditures provided for by EC No. 95/2016 would shield any diversion of resources from the Single Account for the payment of primary expenses in favour of public debt payments.

It is evident that undue rigidity and/or flexibility in the use of the resources of the Single Account could have occurred before EC No. 95/2016 came into force, even with the legal prohibitions provided for in the Fiscal Responsibility Law (Complementary Law No. 101/2000) and in Law No. 11,803/2008 that regulated the Treasury and BCB relations[26] until 2019. However, the evolution of the main movements of the Single Account,[27] between 2011 and 2019, indicate that its sources of growth were: i) operating and foreign

[25] The availability of the liquidity cushion of the Single Account was estimated at R$630.5 billion on average of the resources observed between July 2018 and 2019 (Bassi, 2021).

[26]A new regulation of the National Treasury and BCB relations came into force with the enactment of Law No. 13,820/2019. This law provided that the positive exchange rate variations of international reserves would no longer be automatically transferred to the National Treasury, but to a profit and loss reserve account intended to cover any losses from exchange rate equalization. This would avoid possible financing of the Treasury by the BCB. Surprisingly, article 5 of this Law provided that the National Monetary Council could determine the transfer of the BCB's profit reserves for the payment of the DPMFi. This provision was used for the transfer of R$ 325 billion in 2020 (Bassi, *op. cit.*).

[27] For more details on the evolution of the Single Account and its main movements, between 2011 and 2019, see Table 1-A in the Annex.

exchange profits with international reserves obtained by the Central Bank; ii) gains from Treasury operations;[28] and, iii) real interest and other equity variations transferred to the Single Account. These were the main factors that impacted the growth of its availabilities. These sources of funds would not have restrictions or a *priori links* for their use in the redemption of government securities.

There are no indications, therefore, of a linking of the resources of the financial surplus of the Single Account and/or a diversion of its availabilities for the payment of primary expenses of such an amount that would prevent a more aggressive redemption of government securities in the period considered and, therefore, reduce the growth of the DPMFi. Everything suggests that considerations of the *trade-off* between fiscal cost and term of DPMFi bonds and repo operations - in a monetary policy regime with a structurally high basic interest rate to combat inflation - have placed obstacles to the joint management of public debt and liquidity in order to limit the more aggressive redemption of these bonds in the market (Bresser-Pereira, 2004; Gobetti, 2011).

In short, the dynamics of DPMFi|, DBGG's main liability, had as a central determinant the appropriation of real interest and monetary adjustment that are levied on federal government securities in the market. The fall in the real growth of the Brazilian GDP in the period analysed reduced its contribution to dampen the growth of the GGGD/GDP indicator. It is worth noting that the deterioration of this indicator occurred with the increase in the availability of the Single Account. Thus, the joint management of public debt and liquidity faces a constraint: the structurally high basic interest rate. In other words, even with availability in the liquidity cushion of the Single Account and favourable conditions in the financial market, the more aggressive redemption of DPMFi bonds is faced with the restriction of liquidity control necessary for the Selic-target rate to be high enough to control inflation.

Finally, one cannot disregard, therefore, the financial cost component, resulting from the management of the DPMFi and which is associated with the control of liquidity through repo operations, as a relevant determinant for the reproduction of the fiscal imbalance of the Brazilian State. However, in the discussion of the financial component of the Brazilian fiscal imbalance it is relatively absent from the debate.

[28]These operations include, among others, dividend payments from state-owned companies, resources from privatizations, and payments of interest and principal services by states and municipalities to the Union, see National Treasury (2021).

4. Final Remarks

The dominant diagnosis is that the fiscal problem is the main responsible for the semi-stagnation of the Brazilian economy. The recipe for the resumption of growth would be a structural fiscal adjustment, focused on the compression of primary expenditures as a proportion of GDP. In accordance with this diagnosis, EC No. 95/2016 was approved, which establishes that primary expenditures, including health and education, are only adjusted by inflation, measured by the IPCA, for at least a decade from its approval in 2016.

However, the growth rate of the economy remained semi-stagnant even with the approval of the spending cap amendment. Even before the impact of the Covid-19 pandemic, the Brazilian economy continued the trend of presenting anemic growth rates (Marquetti *et al*, 2022), casting doubt on the diagnosis of structural fiscal adjustment as a condition for the resumption of growth. Everything indicates that the problem of the breakdown of the "growth machine" of the Brazilian economy cannot be reduced to the fiscal imbalance of the Brazilian State. It is not even possible to credit all fiscal imbalance to the uncontrolled growth of primary expenditures in the public sector. This article sought to show evidence that the Brazilian fiscal imbalance has an important financial component, which acts to contribute to the maintenance and even to the deepening of the imbalance of public accounts, especially of the Central Government.

In the Brazilian case, the management of public debt and liquidity has a high fiscal cost due to interest service and other financial expenses.[29] This fiscal cost, in turn, expands the stock of public debt securities in a self-feeding process of deterioration of their sustainability. In this context, the fiscal adjustment policy - only through the contraction of primary expenditure - tends to become permanent and of reduced effectiveness, regardless of the phase of the economic cycle and the financing needs of social policies for the most vulnerable population. Paradoxically, one of the results of the permanent fiscal adjustment policy is the compression of the capacity for public investment in economic infrastructure, especially that of the Central Government (Magalhães, Rodrigues, Kolai, 2022). In turn, this hinders the resumption of growth and the increase in the productivity of capital and

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[29] |For example, the fiscal costs arising from exchange rate management through exchange *swap* operations, see Magalhães and Costa (2018).

labor, which, in the end, would help to improve the indicators of public sector indebtedness through the resumption of economic growth.

The high fiscal cost of managing public debt and liquidity in a monetary policy regime in which the basic interest rate is structurally high, indicates the need for reforms in its institutional and governance arrangement that reduce the size of this fiscal cost. An example of the need for reforms is the reduction and possible elimination of the still high share of LFT in the DPMFi stock, a security that was originally designed to avoid the dollarization of the Brazilian economy in the period of high inflation in the second half of the 1980s. One of the implications of the permanence of this bond as an instrument of the domestic federal public debt is the loss of effectiveness of the monetary policy[30] that requires high basic interest rates to control inflation in the target regime, with the increase in the cost of debt management. Other "anomalies" in the institutional arrangement of Brazilian public debt management could be cited, such as the centrality of interest rates on DI futures contracts in the pricing of DPMFi government bonds (Magalhães, Kolaï, Rodrigues, 2022). These institutional "anomalies" - which have the properties of *path dependence* and *lock in* - have the effect of amplifying the fiscal cost borne by the Brazilian State, and need to be addressed in a reform agenda.

In short, the evidence discussed here suggests that the equation of the Brazilian fiscal issue will require an integrated approach, in which there is a countercyclical fiscal rule for primary expenditures, and that also considers institutional reforms that reduce the financial cost of managing public debt and liquidity to open the fiscal space necessary for increasing public investment in economic infrastructure and the financing of social policies. It does not seem politically feasible and economically efficient to base the fiscal balance of the Brazilian State only on the compression of primary expenditures. The belief in expansionary fiscal adjustment has been undone in the economic thinking of developed countries, but here it remains hegemonic, helping to perpetuate the failure to overcome the trap of low growth in the Brazilian economy. In this sense, the debate on the replacement of the fiscal rule of the "spending ceiling" can be an opportunity to discuss and change the current institutional arrangement for managing public debt and liquidity.

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[30]For a review of the LFT as an instrument of the DPMFi and its economic consequences, including in terms of fiscal cost, see, as already mentioned, Dornelas and Terra (2021).

References

ALMEIDA, M. Evolução dos gastos públicos de 1990-2020. In: O DESAFIO FISCAL DO BRASIL, 2015., São Paulo. Resumos... São Paulo: Insper, 8 maio 2015. Disponível em: . Acess at: 25 oct. 2017

ALMEIDA, M.; LISBOA, M. de B.; PESSOA, S. O ajuste inevitável ou país que ficou velho antes de se tornar desenvolvido. **Folha de S. Paulo,** São Paulo, 19 jul. 2015.

AMITRANO, C. R. **Capitalismo, instituições e desenvolvimento: uma nota sobre a abordagem de "Variedades de Capitalismo".** ANPOCS, 2017.

ASSAF NETO, A. **Mercado financeiro.** 13.ª ed. São Paulo: Atlas, 2015.

BARBOSA, R. M. Taxa de juros e mecanismos de transmissão da política monetária. **Revista de Economia Política**, São Paulo, v. 35, n. 1, 2015.

BANCO CENTRAL DO BRASIL. **Fatores condicionantes da evolução da dívida pública federal.** Brasília: Nota Técnica do Banco Central do Brasil n.º 47, 2021

BASSI, C. M. **Remuneração dos depósitos voluntários e seus efeitos sobre a dívida pública: quando o conceito faz (toda) diferença.** Brasília: IPEA, Nota Técnica n.º 5, julho, 2022.

BRESSER-PEREIRA, L.C. Macroeconomia pós-Plano Real: As relações básicas, In João Sicsú, J. Paula, L. F. e Renaut, M., (Org.), **Novo Desenvolvimentismo: Um Projeto Nacional de Crescimento com Equidade Social.** Barueri: Manole; Rio de Janeiro: Fundação Konrad Adenauer. 2004.

BRESSER-PEREIRA, L. C. **Macroeconomia da estagnação.** São Paulo: Editora 34, 2007.

BRESSER-PEREIRA, L. C. Capitalismo Financeiro Rentista. **Estudos Avançados** 32 (92) 2018.

BRESSER-PEREIRA, L. C.; PAULA, L. F.; BRUNO, M. **Financeirização, coalizão de interesses e taxa de juros no Brasil.** Rio de Janeiro**:** IE/UFRJ **(**Texto para Discussão, nº 22), 2019.

FURMAN, J. SUMMERS, L. **A Reconsideration of Fiscal Policy in the Era of Low Interest Rates**.Washington: Brookins: (*Discusson Draft*), 2020

GOBETTI, S. W.; SCHETTINI, B. P**. Dívida líquida e dívida bruta:** uma abordagem integrada para analisar a trajetória e o custo do endividamento brasileiro. Brasília: Ipea, (Texto para Discussão, n.º 1514).

GOBETTI, S.W.; AMADO, A.M. Ajuste fiscal no Brasil: algumas considerações de carácter pós-keynesiano. **Revista de Economia Política**, vol. 31, n.º 1 (121), p. 139-159. Janeiro-março/2011.

GUARDIA, E. Conta Único do Tesouro: flexibilidade necessária e seus maus e bons usos. In BACHA, E. **A Crise Fiscal e Monetária Brasileira.**Rio de Janeiro: Editora Civilização Brasileira. 2017

HADZI-VASKOV, M.; RICCI, L. A.**Does Gross or Net Debt Matter More for Emerging Market Spreads?** IMF Working Paper n.º 16/246. 2016.

HALL, P. A.; SOSKICE, D. Introduction. In: HALL, P. A.; SOSKICE, D. (Eds). **Varieties of Capitalism: Institutional Sources of Comparative Advantage**. Oxford: Oxford University Press, 2001.

HENAO-ARBELAEZ, C; SOBRINHO, N. **Government Financial Assets and Debt Sustainability**. IMF Working Paper n.º 17/173, 2017.

HIGA, A. P.; AFONSO, J. R. **Algumas inter-relações da política fiscal com a monetária, cambial e creditícia no Brasil.** Brasília: Senado Federal, Núcleo de Estudos e Pesquisas da Consultoria Legislativa, Brasília: Senado Federal, 2009. (Texto para Discussão, n.º 66).

HOLANDA, F. B. The contagion effect of public debt on monetary policy: the Brazilian experience. **Revista de Economia Política,** São Paulo, v. 26, n.º 2, 2006.

KEYNES, J.M. **The General Theory of Employment, Interest and Money. Cambridge University Press: Cambridge,** 1936

LOPREATO, F. L. C. **Problemas da gestão da dívida pública brasileira.** Campinas: Unicamp, (Texto de Discussão, n.º 139), 2008.

MAGALHÃES, L. C. G.; COSTA, C. R. **Arranjos institucionais, custo da dívida pública e equilíbrio fiscal: a despesa "ausente" e os limites do ajuste estrutural**. (TD nº 2403), Brasília: IPEA, 2018.

MAGALHÃES, L. C. G.; ARAUJO, C. R; KOLAI, Y. J. Z. "A dívida pública e o problema do investimento de infraestrutura no Brasil: diagnóstico e proposta para discussão". In: SILVA, M. S. **Concessões e Parcerias Público-Privada**. Brasília: IPEA, 2022.

MARQUETTI, A.; MALDONADO FILHO, E.; MIEBACH, A.; MORRONE, H. **Uma Interpretação da economia brasileira a partir da taxa de lucro: 1950-2022** Trabalho apresentado no Webinário *do Grupo de Pesquisa de Macroeconomia Estruturalista do Desenvolvimento* em 19 de novembro de 2021. Disponível em (2619) O Comportamento de Curto e Longo-Prazo da Taxa de Lucro no Brasil - YouTube

MODENESI, A. M.; MODENESI, R.; OREIRO, J. L. C.; MARTINS, N. M. "Convention, Interest Rates and Monetary Policy: a post-Keynesian-French-conventions-school approach". *European Journal of Economics and Economic Policies*, v. 10, p. 76-92, 2013.

ORAIR, R.; SIQUEIRA, F. "Investimento público no Brasil e suas relações com o ciclo econômico fiscal e o regime fiscal". **Economia e Sociedade**, v. 27, n.º 3, 2018.

OREIRO, J. L. C. "Prêmio de Risco Endógeno, Equilíbrios Múltiplos e Dinâmica da Dívida Pública" *Revista de Economia Contemporânea*, Rio de Janeiro, v. 8, n.1, p. 67-91. 2004.

OREIRO, J. L.; SANTOS, J. F. C. "The Unfinished Stabilization of the *Real Plan*: An analysis of the Indexation of the Brazilian Economy**" In: Ferrari-Filho, F; Paula, L.F. (orgs). Central Banks and Monetary Regimes in Emerging Countries.** Cheltenham: Edward Elgar., 2023.

OREIRO, J.L; PAULA, L.F. **Macroeconomia da Estagnação Brasileira.** Alta Books: Rio de Janeiro, 2021.

PELLEGRINI J. A. **As operações compromissadas do Banco Central**. Brasília: Instituição Fiscal Independente, (Estudo Especial, n.º 3), 2017.

PIRES, M. Política fiscal e ciclos econômicos. **Economia Aplicada,** v. 18, n.º 1, 2014.

PIRES, M.; BORGES, B. A despesa primária do Governo Central: estimativas e determinantes no período 1986-2016. Rio de Janeiro: FGV-IBRE, 2016.

RESENDE, C.; PIRES, M. O impulso de multiplicador fiscal; implementação e evidência para o Brasil. **Estudos Econômicos,** v. 51, n.º 2, 2021.

ROSSI, P. **Taxa de câmbio e política cambial no Brasil.** Rio de Janeiro: Editora FGV, 2016.

SALTO F. *et al.* **As duas dimensões do ajuste fiscal.** Campinas: IE-Unicamp, (Texto de Discussão, n.º 262), 2015.

SECRETARIA DO TESOURO NACIONAL. **Indicadores da Dívida Pública Federal.** Brasília, Nota Metodológica nº 1, novembro de 2021.

SILVA, M. S. **Política econômica emergencial orientada para a redução dos impactos a Covid-19 no Brasil: medidas fiscais, de provisão de liquidez e de liberação de capital**. Brasília: IPEA, (Texto para Discussão, n.º 2576), 2020.

SILVA, A. D. B. M.; MEDEIROS, O. L. Conceitos e estatísticas da dívida pública. In: Silva, A. C.; Carvalho, L. O.; Medeiros, O. L. (Org.) **Dívida pública: a experiência brasileira. Brasília: Secretaria do Tesouro Nacional**; Banco Mundial, 2009.

Anex

Table 1-A – Evolution of the Single Account, 2011 to 2019: main movements

(In billions of constant R$: IPCA Dec. 2019)

Year	Main movements: Primary result of the Federal Government	Net redemption of securities on the market by TN	Transfer of positive result from the BCB (operational)	Transfer of positive result from the BCB (foreign exchange)	Payments and/or relocations of securities in the BCB's portfolio	Other financial operations of the TN	Total A	Real interest and other equity variations B	Variation in stocks C=A+B	Stock
2011	156	-120	29	0	-65	40	41	77	118	792
2012	136	-201	38	195	-66	46	146	80	226	970
2013	113	-210	42	24	-60	69	-23	75	53	969
2014	-28	-177	28	23	-13	21	-147	77	-70	845
2015	-152	191	82	150	-72	50	249	113	362	1.156
2016	-188	-19	50	135	-69	153	63	124	187	1.231
2017	-131	142	22	0	-154	59	-63	107	44	1.203
2018	-125	-21	38	161	-111	165	107	104	211	1.380
2019	-92	42	49	0	-99	168	68	103	171	1.501

Source: BCB.