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THE APPLICABILITY OF THE MMT TO THE BRAZILIAN CASE
An analysis from 2000 to 2019

Isadora Bonitz Silva Gomes
Universidade Federal do Rio de Janeiro (UFRJ)

Resumo

This paper analyzes the applicability of the Modern Monetary Theory to Brazil, considering the macroeconomic and institutional characteristics in force during 2000-2019. The theory's prescriptions and criticisms of its applicability to peripheral countries are analyzed, as well as the macroeconomic indicators that characterize the Brazilian domestic policy degree of autonomy and the institutionality of the economic policy framework in force in the country. The hypothesis studied is that the economic prescriptions of MMT are applicable to the Brazilian case. The results found indicate that Brazil has a relative degree of political autonomy. However, the rigidity of the Brazilian macroeconomic regime, derived from the institutional framework, is incompatible with the MMTist prescriptions, as it restricts the State's performance, compromising the most relevant objectives of economic policy in this view: full employment and economic development. Thus, it is argued that the MMT is applicable to Brazil, if institutional changes are carried out.

Palavras chaves: Modern Money Theory. MMT. Applicability. Monetary sovereignty. Economic policy.

JEL: B52, E12, E61

LIST OF GRAPHS

SUMMARY

INTRODUCTION

In 2020, the crisis associated with the pandemic of COVID-19 spread throughout the world. This was an unprecedented situation, as the pandemic strongly affected public health and the economies of the countries and generated both demand and supply shocks. The consequences for many countries were a sharp drop in GDP, an increase in unemployment, and a worsening of the fiscal situation (increase in public debt and deficit), among others. In this context, it became clear to the world that the pandemic brought the need for greater spending by the state in order to contain the advance of the virus, so that people's lives could return to normal, and to avoid major economic disasters (RESENDE, 2020a).

At the international level, the propositions of the Modern Monetary Theory, or MMT, had been debated since the beginning of the century, but gained relevant strength after the 2008 crisis, when the experience of quantitative easing came tumbling the idea that monetary issuance necessarily causes inflation (RESENDE 2019a; 2020b; 2020c).

Furthermore, currently many countries already have a debt/GDP ratio greater than 100% and do not face difficulties associated with this, such as Japan (RESENDE, 2020c). The supposed evils of the fiscal deficit are being increasingly demystified, especially by MMT authors. The main proposition of this current is that if a country has monetary sovereignty, it need not fear deficits and high levels of public debt.

According to Deos et al (2021), a certain perception that "conventional macroeconomic theory is in crisis" occurred concomitantly with the increased relevance of MMT in recent years on the international scene, mainly due to the "failure of its predictions"[1] and the "inefficiency of its policy proposals"[2], so that its propositions and prescriptions started to be questioned.

In this context of growing dissatisfaction with mainstream macroeconomics, MMT was able to go beyond the academic debate, gaining attention in international and, especially, North American news media, since it also became present in the political debate when some members of the Democratic Party embraced its ideas and assumed that these are behind some of its policy proposals, such as the Green New Deal[3] and a federal job guarantee program[4] (DEOS et al. , 2021).

1 It was unable to predict the 2008 crisis (DEOS et al., 2021).

2 Monetary policy did not achieve the desired results, proving to be limited, while fiscal policy assumed greater importance, contrary to what the prevailing theory recommends (DEOS et al., 2021).

3 It consists of a set of proposals that aim to address environmental pressures and economic inequality in order to avoid climate and economic crises.

4 In this type of program, the state provides jobs for everyone who wants to work and cannot get a job in the private sector. The wage paid by the state to these workers would function as a minimum wage and would anchor all other prices in the economy. This employment guarantee program would be a strong automatic stabilizer of the economy and an instrument of inflationary control, since by guaranteeing employment for all, the state would be establishing a wage floor, which would become a reference for jobs in the private sector and would anchor all prices in the economy (KELTON, 2020; DALTO et al., 2020, p. 187-188).

The effort to which some MMT authors dedicate themselves is to demystify some economic ideas and concepts entrenched in society by conventional economic theory. This exercise makes it possible to conceive economic policy on new bases, in particular, to highlight the importance of fiscal policy for the economic system as a whole, especially to bring the economy closer to full employment. This became even more intense in 2020, because of the need that the pandemic brought for governments to solve the health crisis and prevent the economic crisis from being too deep.

In Brazil, the virus arrived at a time when the country presented a fiscal situation considered fragile and even "unsustainable", with the economy practically stagnant (RESENDE, 2020a). Going in the opposite direction of other countries, the Brazilian economic team continued to follow its fiscal demeanor, emphasizing the need to eliminate the fiscal deficit. However, some fiscal support measures were approved by Congress and put into practice, especially the Emergency Aid[5].

The external situation of low international interest rates, together with the domestic context of historically low Selic and inflation expectations below target, would allow Brazil to follow the fiscal expansion path suggested by international organizations (BARBOSA, 2020a). However, the ideology of sound public finances of the economic team is reinforced by some self-imposed fiscal rules[6] that prevail in the country.

In this sense, the Brazilian debate occurred among economists who, being in line with international recommendations, advocated the use of fiscal policy to provide fiscal support to the most vulnerable and to combat the impacts of the pandemic (DEOS et al. 2020; CONCEIÇÃO et al. , 2020; PAULA; MARTINS, 2020; RESENDE, 2020a; 2020c; 2020d; VILELLA et al. , 2020), and economists who, under the pretext of Brazil's fragile fiscal situation and the risk of public debt reaching 100% of GDP in 2020, advocated that fiscal adjustment measures and structural reforms should be resumed as soon as possible (MAIA, 2020; GRANER; PINTO).

As the pandemic inevitably generated an increase in the fiscal deficit and public debt, another relevant debate that gained strength in 2020 was about the ways of financing the government, along with the discussion of the relaxation of the rules mentioned above. In particular, the media debate among several economists of various lines was basically between issuing currency or debt, since increasing taxes would deepen the recession (BARBOSA, 2020b; 2020c; BASTOS, 2020; RESENDE, 2020b).

What also bypassed all this debate was the discussion of the greater or lesser participation of the State, which is essential in critical moments, such as that of the pandemic, being responsible for

5 The Emergency Aid was a financial support granted by the Federal Government to the most vulnerable individuals, such as the unemployed, informal workers and individual micro-entrepreneurs, as a way to mitigate the impacts of the COVID-19 crisis.

6 The most relevant fiscal rules in force, especially article 164 of the Federal Constitution, which prohibits the Central Bank of Brazil from financing the National Treasury directly, and, especially, the spending cap rule, which limits the Union's spending in line with inflation (PIMENTEL; MARTINS, 2020), will be seen later in Chapter 3.

dealing with both the health crisis and the economic crisis, and thus preventing the paralysis of the economy from becoming a financial crisis of major proportions (LISBOA, 2020; RESENDE, 2020a).

As the Covid-19 crisis still does not seem to have been overcome, despite the progress of vaccination in the country, the discussion about the ideal economic policy arrangement to combat the economic and social effects of the pandemic is placed as a question on the agenda. Given this conjuncture and the growing importance of MMT in the international debate, it is essential that Brazilian economists also debate it, and it is necessary to understand whether the arrangement proposed by MMT, originally thought in the American context, is applicable to Brazil and what limitations it might face. L. Randall Wray (2019a), one of its most relevant proponents today, believes that this is possible since Brazil issues its own currency, regardless of whether it is strong or weak.

In this context, the general objective of this paper is to analyze the applicability of MMT to the Brazilian case, considering the macroeconomic and institutional characteristics in force in the country since the turn of the 21st century. More specifically, it seeks to assess the possibility of characterizing Brazil as a sovereign-currency economy and to analyze how possible changes in macroeconomic characteristics, such as foreign currency indebtedness and financial liberalization, and institutional characteristics, such as the adoption of the spending cap, affect the degrees of freedom of Brazilian domestic economic policy - and, therefore, the application of the economic policy prescriptions provided by MMT. The underlying hypothesis to be investigated is whether MMT's policy prescriptions are applicable to the Brazilian case.

The methodology to be employed involves three complementary efforts. First, a theoretical synthesis of the MMT will be carried out, contrasting it with the basic structure of the so-called New Macroeconomic Consensus. Criticisms of MMT from the point of view of peripheral countries will also be discussed. For this purpose, a review of the main contributions to the topic in the literature will be carried out, identifying the main theoretical elements that integrate MMT, the characterization of sovereign-currency countries, and their economic policy propositions, including from the point of view of the periphery.

Second, an empirical analysis of macroeconomic indicators associated with the characterization of Brazilian economic policy autonomy in the period from 2000 to 2019 will be conducted. It seeks to show that Brazil has a sovereign currency, according to the characteristics postulated by MMT, and to infer the degree of domestic policy autonomy. To this end, specific metrics will be developed and analyzed, such as, for example, the percentage of Brazilian public debt indexed to the dollar. The main data sources for this exercise will be the Central Bank of Brazil's Time Series System and information from the National Treasury.

Third, the institutional framework of the economic policy framework in Brazil will be mapped from primary sources (legislation and complementary infra-legal norms) and secondary sources (academic literature) that allow the identification of the main arrangements involved in the operation of

fiscal, monetary and exchange rate policies. With this, we seek to elucidate whether the institutional arrangement in force in Brazil conflicts or not with the propositions of MMT.

This monograph is divided as follows. Chapter 1 briefly presents the propositions of the New Macroeconomic Consensus (NMC), which constitutes the theoretical framework behind the economic policies in force in Brazil, and then, as a counterpoint, the theoretical foundations, and main propositions of the NMC are presented, as well as the criticisms to the NMC originating from peripheral countries. In Chapter 2, we seek to study Brazil's degrees of freedom in relation to its national policy and whether it has difficulties in borrowing in its own currency. The third and last chapter shows the institutional arrangement of the economic policy in effect in the country since 1999, seeking to show to what extent this arrangement is compatible with the MMT propositions. Finally, the conclusion summarizes the main points discussed throughout the paper, which allow us to infer that the applicability of MMT to the Brazilian case is possible, but only on condition that institutional changes are made.

CHAPTER 1 - ECONOMIC POLICY THEORY: FROM THE NEW MACROECONOMIC CONSENSUS TO MODERN MONEY THEORY (MMT)

The supposed "crisis" of conventional macroeconomic theory, pointed out, among other authors, by Deos et al. (2021), is not supported by the institutionality of economic policy in the real world. Despite this theory's inability to explain some phenomena, it remains in the DNA of economic policy frameworks adopted around the world, particularly in developing countries or those located on the periphery of the global economy.

The severe socioeconomic crisis brought on by the pandemic raised a debate about the role of the State in other terms, as pointed out in the Introduction of this paper, making the public interest in alternatives to conventional policies grow. In this context, the Modern Money Theory, or MMT, which already permeated the public debate, gained strength as a framework to guide progressive economic policies. This chapter is dedicated to analyzing the main theoretical elements involved in the analysis of this chain.

For this purpose, it is divided into two sections. Section 1.1 briefly presents the postulates of the New Macroeconomic Consensus, so that the reader has a basis for comparing the theoretical frameworks. Section 1.2 presents the main aspects of the MMT, covering its theoretical foundations, its main propositions and policy recommendations for sovereign-currency countries, and, finally, a critical analysis of MMT policy proposals for peripheral countries. At the end, a summary of the main issues addressed in the chapter is presented.

1.1 STARTING POINT: THE NEW MACROECONOMIC CONSENSUS (NMC)

The economic policy framework in place in Brazil since the beginning of the current century

follows the orientation of the New Macroeconomic Consensus (OREIRO; PAULA, 2021). In order to understand the institutional framework that governs Brazilian economic policy and to provide a basis for comparison against which MMT will contrast, this section briefly presents its principles and policy prescriptions.

1.1.1 Theoretical Background

The New Macroeconomic Consensus (NMC) is influenced by several neoclassical schools, including the monetarist, the new-classical, the new-Keynesian, and the real business cycles schools. According to Paula and Saraiva (2015), the main elements of these schools that are incorporated by the NMC are the natural rate of unemployment, rational expectations, monetary neutrality in the long run, and the problem of the time inconsistency of monetary policy. In addition, the role of wage and price rigidities is highlighted, capable of causing aggregate demand to have impacts on economic activity in the short run.

Being its foundations strongly neoclassical, Paula and Saraiva (2015, p. 22) characterize the NMC as "the new synthesis of conventional macroeconomic theory" and show some of its principles: (a) the monetarist view of inflation, which is always a monetary phenomenon; (b) price stability is important for economic growth; (c) contrary to the idea behind the Phillips Curve, there is no trade-off between unemployment and inflation in the long run; (d) expectations are an important transmission channel of monetary policy and have a strong influence on the determination of inflation; (e) the Taylor Rule, according to which, when faced with an inflationary upswing, it is necessary to raise the interest rate; (f) there is a problem of time inconsistency of monetary policy; (g) an independent central bank would make monetary policy more efficient; and (h) the commitment to an adequate nominal anchor is essential for the good performance of monetary policy.

1.1.2 Economic policy according to the NMC

Considering its principles and its neoclassical bases, the NMC establishes that the main objective of economic policy should be price stability, since it considers that long-term economic growth depends on a low and stable inflation rate (ARESTIS; PAULA; FERRARI-FILHO, 2009; PAULA; SARAIVA, 2015).

In this framework, monetary policy assumes the role of economic policy protagonist, being used to prevent deviations of output from potential output and of inflation from the target. The conduct of other policies should be subordinated to the objectives of inflation stability and, secondarily, to the stabilization of output (PAULA; SARAIVA, 2015). In this arrangement, there is also a broad set of fiscal rules that have healthy finances as guides, or even the reduction of public spending and the size

of the state. Examples are the primary result target, the golden rule[7] and the spending cap[8], which will be addressed below.

According to the NMC, fiscal policy is ineffective in raising the level of income. With an expansionary fiscal policy, for example, output rises relative to potential and inflation rises relative to target, forcing the central bank to raise the short-term interest rate in order to keep inflation on target and narrow the output gap[9]. This increase in interest rates would reduce private investment, which would eventually offset the initial increase in government spending and thus bring output back to the full employment level. In other words, the NMC considers that the crowding-out effect occurs, which is exactly when the increase in public spending is offset by the fall in private investment (BALL; MANKIW, 1995). In this context, "an expansionary fiscal policy, according to this school, would lead to an artificial overheating of the economy" (VILELLA et al., 2020, p. 11).

Given this logic, the Inflation Targeting Regime (IMR) is considered the central regime for the conduct of economic policy, because "its characteristic is the explicit recognition that the main objective of economic policy, and particularly of monetary policy, should be the maintenance of a low and stable inflation rate" (PAULA; SARAIVA, 2015, p. 26). It has more flexible versions in which the monetary authority can also be responsible for secondary objectives, such as the stability of output around its potential path or even financial stability, provided that the main objective, price stability, is not compromised (ARESTIS; PAULA; FERRARI-FILHO, 2009; CARVALHO et al., 2012).

With the adoption of the IMR in several countries, the monetary policy instrument is no longer the expansion of the money supply, but the short-term interest rate. However, an indispensable requirement of this regime is that the monetary authority has credibility in conducting monetary policy. The central bank acts with a "restricted discretion", i.e., it has some flexibility, without prejudice to its credibility, in order to allow reactions to possible shocks, but also with reduced room for action to generate inflationary surprises that exploit the trade-off between inflation and unemployment (PAULA; SARAIVA, 2015; REIF, 2018). In other words, it is a hybrid regime, since it fits neither a fully rule-based nor a fully discretionary regime (CARVALHO et al., 2012; MODENESI, 2005; REIF, 2018).

The working mechanism of the IMR is as follows: "the monetary authority determines the interest rate, which, via demand, will influence the level of current output, which, in turn, will determine inflation for the period" (REIF, 2018, p. 10). If there is no output gap (that is, if the actual output is at the potential level) and inflation is on target, the interest rate set by the central bank will be equal to the equilibrium real interest rate.

7 A fiscal rule that prevents the government from issuing debt to pay current expenses.

8 A fiscal rule that limits government spending according to the previous year's inflation.

9 It is worth remembering that in this view, the interest rate is exogenous, determined by the Central Bank according to the Taylor Rule, which corresponds to a reaction function of monetary policy and is given by: $I_t = r^* + c1\ y^*_{t-1} + E_t(\pi_t+1) + c2\ (\pi_{t-1} - \pi)$. This equation shows that the short-term interest rate (monetary policy instrument) is determined by the real natural rate of interest, the lagged output gap, future inflation expectations, and past inflation (REIF, 2018).

On the other hand, if the economy is heated (cooled) and with high (low) inflation, the output gap will be positive (negative). The central bank will adopt a nominal interest rate above (below) the equilibrium rate in order to discourage (stimulate) demand (due to agents' intertemporal preferences). This fall (rise) in demand will reduce (increase) the output gap and with such a decrease (increase), pressures on inflation will be reduced (amplified).

However, the NMC found practical limits, especially after 2008, when it was observed that the conventional monetary policy[10] was insufficient to stimulate the economy in order to resume the level of activity, especially because of the zero lower bound. In this context, unconventional monetary policies were necessary: the main instrument of monetary policy became quantitative easing, a policy that represents a huge expansion of the central bank's balance sheet and a change in its composition, with the purchase of long-term securities. The objective of this strategy, adopted during the crisis by the Federal Reserve and by other central banks of countries considered developed, was to provide large amounts of liquidity to rescue the financial system.

With this, the precepts of the NMC were called into question, since in this framework, asset purchases by the monetary authority would have no permanent effect on the level of activity. Moreover, his recommendation for when conventional monetary policy would not be effective (i.e., when the interest rate is close to zero) was the adoption of the "forward policy guidance" strategy, which would be the only one capable of impacting the long-term interest rate and, therefore, aggregate demand. This strategy consists of the monetary authority explicitly announcing to the public the path it will follow regarding the interest rate, in order to anchor expectations and avoid surprises that destabilize the market (SARAIVA; PAULA; MODENESI, 2017).

Thus, in the face of the contraposition between the ineffectiveness of conventional monetary policy and forward guidance in dealing with the increase in liquidity preference and the effectiveness of unconventional monetary policies (which showed that the monetary base was able to affect real variables of the economy), the theoretical framework in the NMC began to be questioned (SARAIVA; PAULA; MODENESI, 2017), making room for heterodox frameworks, including MMT.

1.2 MODERN MONETARY THEORY (MMT)

MMT is a heterodox analytical framework that seeks to (a) describe how capitalist economies and the current monetary system actually work, considering modern fiat currencies; and (b) prescribe policies that avoid financial instability and ensure full employment (KELTON, 2020, pp. 8-9; 107-108; DEOS et al. , 2019).

By trying to demystify some economic ideas and concepts ingrained in society by conventional theory, MMTist authors seek to show what the real obstacles to conducting economic policy and achieving full employment would be. In the words of Kelton (2020, p. 107):

10 It corresponds to the management of the interest rate through open market operations.

MMT is not a religion, and it's not looking for disciples to follow some screed. What it offers is a realistic description of how a modern fiat currency works, along with some prescriptive ideas about how to transform that understanding into better public policy. By helping us to see more clearly what the obstacles are (e.g., inflation) and aren't (e.g., running out of money), MMT opens the door to a new way of thinking about how we could run our economy. In almost all cases, it shows us that we have allowed myths and misunderstandings about money, debt, and taxes to hold us back. By tearing down these myths, MMT shows us that it's possible to build a stronger and more secure future for ourselves, our global partners, and future generations.

1.2.1 Theoretical Background (I): Chartist Currency

Generally, textbooks point out that money emerged with the purpose of facilitating exchanges between agents, eliminating the problem of the double coincidence of interests (CARVALHO et al., 2012, p. 1-3). However, the state theory of money argues that the origin of money is in debts, not in facilitating exchanges. In other words, money would be the representation of a debt. For example, a consumer could demand a commodity without having yet obtained the resources to buy it, then he would be in debt to the market until he obtained the credit to pay off his debt (VILELLA et al., 2020).

Over time, various items have been used as currency. However, not just anything can function as such. Since the nature of money is debt, individuals look for a good that facilitates the representation of debts. In this sense, the essential for a good to become currency is that it is widely accepted by individuals, and, for this, they have to believe that other agents will also accept that good. In other words, "money emerges as a socially accepted debt representative" (VILELLA et al., 2020, p. 3) based on a convention: agents accept money as a debt representative because they believe that others will also accept it.

Proponents of MMT advocate that the state is able to strongly influence this belief of agents. This view is what is conventionally referred to as the chartist view of money. It is argued that money is a state creature, reinforcing its role as a unit of account (DALTO et al. , 2020, p. 22).

In general, the authors linked to MMT work with a branch of this school, Neochartism. According to this approach, through taxes the State generates a debt for all agents, which must be paid by them. Thus, the state currency becomes accepted because the state imposes a debt (the taxes) on all individuals. An agent accepts the state currency because he knows that the others will also accept it, since everyone has a debt to pay with the state (DALTO et al., 2020, p. 57-58; DEOS et al., 2019; KELTON, 2020, p. 18-19; VERGNHANINI; DE CONTI, 2017, p. 18; VILELLA et al., 2020).

In this narrative, the state has the power to define what will be accepted as currency when taxing and to determine which items it will accept as payment for taxes, thus creating demand for its currency (DALTO et al., 2020, p. 57-58). By itself, this already contradicts the idea that currency emerged as a mere facilitator of exchange and that the state is subject to some financial constraint (DALTO et al., 2020, p. 23).

In this sense, money has an origin (the State determines the unit of account, issues the money and spends it), a circulation among agents, who use it with its usual functions as a medium of exchange, store of value and unit of account, and an end, which is its destruction when used by individuals to pay their taxes to the government (or to buy government bonds) (VILELLA et al., 2020).

1.2.2 Theoretical Foundations (II): Functional Finance

The doctrine of Functional Finance, developed by Lerner, is an important theoretical foundation of MMT. According to this doctrine, "public finances should be used in a manner functional to the economy - for the maintenance of full employment - and not according to some traditional rule, such as the balanced budget" (VILELLA et al., 2020, p. 17). A budget result - whether deficit, neutral or surplus - is neither good nor bad by itself. It should be considered good and balanced if it provides equilibrium conditions for the economy as a whole, such as full employment and price stability (KELTON, 2020, p. 33).

In this sense, Lerner opposes to the vision of sound public finances and highlights that the government has no financial constraints to spend, i.e., it does not "break" its own currency. Thus, fiscal policy should be used in accordance with the real resources of the economy, not with a budget that is considered balanced, considering its effects on the level of employment and inflation (DALTO et al., 2020, p. 123).

In this context, the main objective of fiscal policy should be to bring the economy to full employment, avoiding situations of inflation or deflation. To this end, the government should follow two principles: (a) undertake a level of spending that makes effective aggregate demand compatible with full employment output, that is, the level of public spending should correspond to the full use of productive resources, and (b) should only issue debt securities (or eventually increase taxation) if the public so wishes, reducing the amount of money held by the private sector (KELTON, 2020, p. 127; LERNER, 1943; VILELLA et al., 2020).

1.2.3 Theoretical foundations (III): The concept of "sovereign currency"

To study MMT, it is crucial to define what a sovereign currency state is. A sovereign currency state is one that taxes and spends in the currency it issues, does not promise to convert it into anything it cannot control, and does not incur significant debt in a currency other than its own (KELTON, 2020, p. 15).

For a state to be monetarily sovereign, it must possess essentially four characteristics. The first is having the ability to fix the unit of account in which prices and contracts will be denominated. The second is to impose a collective obligation (debt), for example taxes, denominated in that unit. Therefore, since individuals are obliged to pay taxes, there is a general demand for the good (money) that represents the unit of account. The third feature is issuing the currency that represents the unit

of account created and that is the only accepted form of payment for the taxes. Finally, the last one is that the state does not promise to convert this medium of exchange (the state currency) into anything it cannot control, as well as not subjecting itself to a relevant foreign currency debt. That is, the government's obligations should preferably be denominated in its own currency. (DALTO et al, 2020; VILELLA et al, 2020; WRAY, 2019b; DEOS et al, 2019).

An important consideration related to the exchange rate regime and deriving from the fourth characteristic above should be made. The exchange rate regime, according to Wray (2019b, p. 5), should preferably approximate a flexible regime. If it adopts the fixed exchange rate regime, a country's sovereignty would be restricted to its ability to obtain the currency in which it has promised conversion at a fixed rate. That is, MMT prefers the floating exchange rate regime because it reduces the risk of foreign currency insolvency and provides a greater degree of monetary sovereignty compared to the fixed regime.

In this interpretation, this regime ensures greater autonomy for monetary and fiscal policies, since they do not need to worry about accumulating reserves in order to keep the exchange rate fixed (DALTO et al., 2020, p. 134-135). Similarly, if the country goes into foreign currency debt, its policy space is also more limited due to its need to obtain such currency to honor its external obligations (DALTO et al., 2020, p. 26).

MMT proposals are valid for open economies as long as the country has monetary sovereignty. However, the exchange rate regime and the external position of the domestic currency should be considered, since they are relevant to the macroeconomic policy of countries (DALTO et al., 2020, p. 125). One should also be aware of the fact that countries have different degrees of monetary sovereignty: a higher degree of monetary sovereignty is desirable because it means that the country has more autonomy to adopt certain types of policies, especially policies aimed at price stability and full employment (KELTON, 2020, p. 69).

The external position of a country's currency, or how much its currency is demanded internationally, can imply a restriction on the current account balance (DALTO et al., 2020, p. 145).

In this sense, some countries with stronger currencies (and floating exchange rates) have a higher degree of monetary sovereignty, such as the United States, the United Kingdom, Japan, among others. In the case of peripheral countries, they may have some of the characteristics mentioned above, to a greater or lesser extent, and therefore have some degree of monetary sovereignty. However, it should be noted that they have less freedom regarding the macroeconomic policies they can apply (DEOS et al., 2019).

1.2.4 Theoretical foundations (IV): Exogenous interest rate

The exogenous interest rate approach[11] comprises the idea that the economy's short-term basic interest rate is a policy decision. Therefore, it is set institutionally and exogenously by the monetary authority[12] pursuing different ultimate objectives, such as inflation control, as in the Brazilian case[13], the pursuit of full employment or the stability of the financial system. The justification for this:

> *comes from the fact that the primary function of money is to be the means of payment defined by the state as the legal way to pay contracts, debts and taxes. Thus, the only debtor that has no risk of running out of money to pay its commitments is the State, since it issues the money itself. In this way, the interest rate that the state offers for its debt will set the floor for market interest rates, because all other debtors in that currency have a higher risk than the government. It is because the currency is state-owned, forced currency, and not because the "supply" of currency is horizontal, that the government sets the basic interest rate. After all, a one-day loan to the government, which by definition does not break even on the currency itself, yielding any interest rate higher than zero, will already be preferable to currency, which yields no interest. (SERRANO; SUMMA, p. 396; emphasis added)*

Money is endogenous in this view, to the extent that the central bank controls the interest rate and not the stock of money in the economy. That is, the monetary authority acts passively, offering an amount of money compatible with the demand for money for a given interest rate. In addition, the long-term interest rate (on government bonds) depends on the short-term rate set by the monetary authority. Thus, by directly controlling the basic rate, the central bank can indirectly influence the long-term rate (SERRANO; SUMMA, 2013).

However, the fact that the monetary authority is able to determine the basic interest rate and indirectly influence the long rate does not necessarily mean that it can set any interest rate level, especially in the case of peripheral countries. This will be seen in more detail below.

1.2.5 The implications of the MMT framework

Once a government meets the conditions for monetary sovereignty, MMT proposes that a sovereign state faces no financial constraint on goods and services denominated in its currency. In other words, a sovereign currency country does not face a budget constraint and cannot "go broke" in the currency

11 On the other hand, the endogenous interest rate view would be one in which the interest rate is determined by the interaction of supply and demand for money (SERRANO; SUMMA, 2013).

12 In the theoretical framework of the NMC, which was seen at the beginning of the chapter, the interest rate would also be exogenous. However, in the long run there would be only one real interest rate, which would be determined by savings and investment. They call this rate the natural rate of interest (SERRANO; SUMMA, 2013).

13 In particular, it is the monetary policy instrument used in the Brazilian regime to control inflation. Moreover, it will be seen in Chapter 2 that private agents have no direct influence over the determination of the short-term interest rate.

it issues. The state is able to sustain successive deficits - should they be necessary to achieve full employment - and, moreover, can issue currency to pay its obligations and determine the interest rate on government bonds (DALTO et al., 2020, p. 23-24; DEOS et al, 2019; KELTON, 2020; VILELLA et al., 2020, p. 28; WRAY, 2019b, p. 6).

It is important to note that the state, since it is the issuer of money, does not depend on prior collection (either through taxes or the sale of government bonds) to make expenditures, that is, taxes do not finance public spending (KELTON, 2020, p. 8). This means that public revenue does not need to be balanced with public spending. In fact, it is the state that first has to make the expenditures (which represent money creation) so that individuals, who are mere users of money (they do not have the power to issue it, unlike the state), can have access to it and pay taxes (DALTO et al., 2020, p. 24).

With this idea, the following question may arise: if the state does not depend on taxes to finance itself, then what are they good for? According to MMT, taxes have several functions, including creating demand for money, destroying money, and reducing excess purchasing power in society by keeping inflation under control (KELTON, 2020, p. 21). They can also be used as a way to redistribute income and to encourage or discourage certain behaviors.

Using this same reasoning, the sovereign state does not need to borrow in its own currency to finance its spending, but it does so as a way to control the interest rate (through the injection or withdrawal of liquidity from the economy) or if the expenditure is in foreign currency (which the state does not issue). Thus, government bonds do not finance government spending either; they would just configure another type of state debt, just like currency, but with the difference that they pay an interest rate (DALTO et al., 2020, p. 24; DEOS et al., 2019; KELTON, 2020, p. 22-23).

Dalto et al. (2020, p. 84) make this point very clear:

> *Issuing government bonds is a monetary policy operation, not a government financing operation. Issuing bonds is an operation to drain excess reserves that would cause the short-term interest rate to drop to zero.*

Another important point that MMT makes is that there is necessarily a zero-sum game between the balance sheets of the government, the private sector, and the external sector. This means that for one of these sectors to achieve a surplus, at least one of the others must achieve a deficit (DALTO et al., 2020, p. 29-30). This also implies that public deficits represent surpluses for the private sector (disregarding the external sector). Similarly, public debt constitutes private financial wealth, since a private sector surplus implies an increase in the stock of financial wealth of this sector, which is accumulated in the form of currency or public bonds, increasing government debt (DALTO et al., 2020, p. 25-26; 36-37).

With this in mind, it is clear that the public deficit represents gains, not losses, in terms of wealth for the private sector. In other words, the logic is the opposite of the conventional theory: when

the government runs a surplus, necessarily the private sector runs a deficit, having to finance it with debt or by selling part of its wealth. In this sense, fiscal deficits are inevitable, since maintaining fiscal surpluses is unsustainable in the long run, as the private sector is unable to sustain deficits continuously and may worsen the financial fragility of the system (DALTO et al., 2020, p. 37; 153-154; KELTON, 2020, p. 54; 65-66).

Kelton (2020) goes further and makes it clear that fiscal deficits can and should be used to benefit the economy as a whole, but to do so, one must demystify the idea that deficits are problematic. In the author's words:

> *we can't use deficits to solve problems if we continue to think of the deficit itself as a problem [...] Once we overcome the myths and accept that federal deficits are actually good for the economy, we can pursue fiscal policies that prioritize human need and public interest. (KELTON, 2020, p. 10-12)*

This does not mean, however, that MMT argues that there are no limits on public spending. Its argument is that there are no financial limits, but the limits of real available resources are recognized by the authors (KELTON, 2020, p. 9). In other words, the concern of increased spending (whether public or private) should be with the full use of available factors of production (DALTO et al., 2020, p. 25-26) and, consequently, with inflation.

Kelton (2020, p. 26) points out that, contrary to popular belief, the occurrence of fiscal deficits does not mean that the government is overspending. In fact, the evidence of overspending would be inflation. On the other hand, unemployment is evidence that the fiscal deficit is small and therefore the state needs to spend more.

1.2.6 Economic policy in sovereign-currency issuing governments

According to MMT, fiscal policy must take the leading role since monetary policy is not sufficient to fulfill the main objective of economic policy: to bring the economy to full employment. Thus, the state must use its unlimited financial capacity, through an active fiscal policy, to fulfill it. It is in this sense that MMT incorporates Lerner's Functional Finance: government spending must be compatible with the level of full employment and a budget that is considered balanced is not necessarily functional for this objective.

According to Kelton (2020, p. 111):

> *Transferring the economic steering wheel to the fiscal authority means relying on democratically elected members of Congress to relax the purse strings when bigger deficits can help support the economy and then tighten them back up as the economy reaches its full employment speed limit. This is the essence of the functional finance approach that was pioneered by Abba P. Lerner in the 1940s. Instead of obsessing over deficits and trying to force the budget into balance, Lerner wanted lawmakers to write a budget that would keep the economy in balance at full employment.*

Associated with fiscal policy, the prescription of a federal employment guarantee program, in which the state would act as an employer of last resort, also gains prominence. This program would be responsible, according to MMTist authors, for ensuring full employment and stabilizing the economy (DALTO et al., 2020, p. 206; DEOS et al, 2019; KELTON, 2020, p. 33-34; VERGNHANINI; DE CONTI, 2017, p. 20).

The idea of the job guarantee program is that the state uses its unlimited financial capacity in order to provide a job for everyone who wants to work and cannot get a job in the private sector. The funding would come from the federal government, which, being the issuer of the state currency, cannot "run out of money". The activities performed would be community oriented. Thus, a job buffer is created by increasing the fiscal deficit, so as not to allow millions of people to become unemployed in times of recession (DEOS et al., 2019; KELTON, 2020)[14].

It is important to emphasize again that MMT does not advocate fiscal irresponsibility in the sense that the government can spend as much as it wants. There are (non-financial) limits to public spending, which are the availability of real resources in the economy and inflationary pressures (KELTON, 2020, p. 9). Therefore, what its authors say is that when the economy is close to full employment, or with little spare capacity, inflationary pressures can arise.

On the other hand, when the economy has too much idle resource capacity, the state has room to increase its spending and it is its duty to use fiscal policy to bring the economy closer to full employment. On the other hand, some countries (such as Brazil) adopt fiscal targets. For MMT, such targets configure unnecessary self-imposed rules that artificially restrict policy space and prevent the government from adequately assuming its role as a stabilizer of capitalist economies (DALTO et al., 2020, p. 239-240; KELTON, 2020). As Kelton (2020, p. 117) highlights: "It's not the size of the debt or deficit that matters. It's the strain we place on our planet and our productive resources that matters".

1.2.7 Economic policy in peripheral governments

As MMT had its development centered on developed countries, its analysis receives much criticism regarding its application to peripheral countries. However, its authors maintain that it is also applicable to these countries, as long as they have a sovereign currency. Nevertheless, it is important to address some relevant differences when dealing with central and peripheral countries.

14 Among the many advantages of the program, we can cite that the economy would be stabilized more quickly in adverse moments, without letting income fall substantially, also enabling a faster and more robust recovery. This would be possible because the program operates automatically, without having to wait for Congress to authorize a fiscal stimulus package (KELTON, 2020, p. 35). In addition, the idea of the employment guarantee assists in stabilizing inflation in three ways: (a) by being a program in effect not only in periods of recession, being always in operation, the income of agents is more stabilized, which smooths the trajectory of the economy as a whole; (b) by establishing a wage floor (the wage paid to workers in the program), which would serve as an anchor for all other prices in the economy, so that the government would be able to reduce possible inflationary pressures in expansionary phases, just as it would be able to reduce possible deflationary pressures in recessionary periods; and (c) by maintaining a pool of people hired by the public sector but ready to be hired by the private sector whenever the latter wishes to expand its production, avoiding inflationary pressures (DALTO et al., 2020, pp. 187-188 and 206; DEOS et al., 2019; KELTON, 2020, pp. 35-36).

Vernengo and Caldentey (2019, p. 3) note that what actually restricts a country's policy space is not precisely the type of exchange rate regime, but its need to obtain foreign currency: as peripheral countries are usually more dependent on their imports, especially for intermediate and capital goods (which are essential for an economic growth process), they end up having this need to obtain foreign currency to finance imports and therefore have a more restricted policy space. Besides this, the greater the external debt of the country, the greater the demand for foreign currency, considering that the debt service will also be higher, as well as the perception of risk.

For Vernengo and Caldentey (2019, p. 4):

> *it is the balance of payments that constitutes the main limitation upon the policy space of developing countries, and the choice of exchange rate regime would increase or decrease policy space depending on certain circumstances.*

This is because, considering the balance of payments, even if a deficit in current transactions is balanced by the financial account and/or by international reserves, this does not mean that it is sustainable, especially in the cases of peripheral countries. Moreover, even if the exchange rate regime is floating, peripheral countries have to worry about not suffering capital flight.

Developing countries that issue sovereign currency cannot default on their own currency, regardless of the exchange rate regime adopted. However, they can default on their foreign currency even with a flexible exchange rate regime, and therefore fiscal policy would not be unrestricted, as MMT claims. A current account deficit that cannot be financed, either because of a capital outflow or because of a loss of reserves, may force the government to have to conduct a contractionary fiscal policy in order to reduce imports and, consequently, the external imbalance (VERNENGO; CALDENTEY, 2019).

Another relevant point that the authors show is that MMT does not consider a currency depreciation as problematic as it really is. According to them, Wray claims that there is no need for the central bank to intervene in the face of capital flight or a loss of reserves if the exchange rate is flexible, because even if it causes a depreciation of the national currency, the government does not promise its conversion into anything. However, this does not seem realistic, since although depreciations solve the balance of payments problem, they are usually also contractionary, with important distributional effects from the domestic point of view. That is, if the exchange rate is floating, which is MMT's recommendation, the economy may go into recession if the domestic currency depreciates continuously (VERNENGO; CALDENTEY, 2019).

It is in this sense that Vernengo and Caldentey (2019, p. 9) argue that the concern of peripheral countries with their reserves and capital flows is due to their need to import certain goods in order for the economy to continue operating, and to the need to honor their obligations in foreign currency, not to the convertibility of their currency: "That is why the proposition that floating rates provide more

space for domestic policy should also be qualified. If the depreciation forces a contraction, there is no extra space for policy, in fact" (VERNENGO; CALDENTEY, 2019, p. 9).

Following the same reasoning, a capital controls policy provides more policy space for developing countries, but again, its importance relates to obtaining foreign currency to honor obligations and pay for essential imports, not to exchange rate protection, as the MMTist authors assume (VERNENGO; CALDENTEY, 2019, p. 10-11).

It is evident, therefore, that the peripheral countries need to invest in the transformation of their production structure in order to alleviate their external constraint, that is, they need to promote a structural change that reduces import needs and increases exports. With this, the need to obtain foreign currency will become smaller and smaller. In this sense, the authors worry that in the face of flexible exchange rate regimes and depreciations, the exchange rate cannot be used to promote this industrial development needed to alleviate the periphery's external constraint (VERNENGO; CALDENTEY, 2019, p. 13-14).

In addition, there is the inflationary issue. Exchange rate depreciations are inflationary and developing countries tend to have a larger pass-through effect[15] (VERNENGO; CALDENTEY, 2019, p. 14). MMT makes it clear that at full employment, any additional spending is inflationary. However, the point here is that for peripheral countries, inflation becomes a problem even before the economy reaches the full employment stage, especially in relation to the labor force.

Regarding debt in domestic currency, developing countries cannot default, but even so, many authors discuss the sustainability of domestic debt and the restrictions it can generate on fiscal policy. Even if the debt is in domestic currency, the authors point out that there are limits to government action, mainly of a political nature. For example, there is behind a relevant distributive issue, since the interest payments of the debt are for the richest agents. Thus, a high interest rate burden is income concentrating, as it favors financial markets (VERNENGO; CALDENTEY, 2019).

However, there are situations in which it would even be bad for the peripheral countries to reduce the debt burden. Interest rates are a very important instrument for some countries that need to keep them high in order to attract capital or just to prevent capital flight. Moreover, by increasing financial expenditures, higher interest rates often force developing countries to adopt austerity policies in order to reduce eventual fiscal deficits.

Thus, the austerity policies adopted by countries are not always self-imposed. The truth is that most of them are subject to some degree of market discipline because they need to import goods and services, and therefore they need to obtain foreign currency. So, this situation of needing to obtain foreign currency and, consequently, needing to maintain the parity of the power of their currency is a general rule, not an exception, as MMTist authors argue: "Therefore, in order to overcome the foreign

15 The pass-through effect refers to the impacts of exchange rate variations on the country's inflation. For example, usually when there is a devaluation of the national currency, inflation increases.

constraint, governments may have either to adopt fixed exchange rate regimes and attract foreign finance, or to limit their growth rate" (VERGNHANINI; DE CONTI, 2017, p. 23).

In the case of the periphery countries:

> *Still, it is possible to do expansionary fiscal policy, of course, unless the BOP constraint was reached, but with higher interest rates, if society is willing to accept the higher interest rate burden and the fiscal transfers to rentiers that it entails. In other words, the interest burden of debt in domestic currency is tied to the external constraint and the need to attract capital, or at least prevent capital flight, even when debt is in domestic currency. (VERNENGO; CALDENTEY, 2019, p. 21).*

Therefore, the authors disagree with MMT when it states that the state can set any interest rate it wants, as long as the exchange rate regime is flexible. In this sense, what they seek to show is that, for developing countries, going into debt only in their own currency and adopting a floating exchange rate may not be enough for them to stop setting high interest rates, especially when considering "a world with high mobility of capital, and international organizations pushing for austerity" (VERNENGO; CALDENTEY, 2019, p. 21).

Following this logic, Vergnhanini and De Conti (2017, p. 16) argue that "peripheral countries, in the context of financial globalization, are not fully sovereign in determining their own macroeconomic policy." To this end, they use the idea of the international hierarchy of currency, showing that the currencies of peripheral countries are not able to fully exercise their usual functions (unit of account, means of payment, and store of value) in the international arena because of the conditions of the international political economy[16].

With this, we must realize that the peripheral countries cannot autonomously determine their short-term interest rates for two reasons. First, as already mentioned, assets denominated in their currencies pay a premium because of their international illiquidity. Second, the preference for international liquidity is what determines this premium. As this variable is unstable and has a reflection on the interest rates of peripheral currencies, they can become extremely volatile (VERGNHANINI; DE CONTI, 2017, p. 25).

The freedom to implement an autonomous policy, therefore, will be greater for countries that issue central currencies than for peripheral countries, since the latter tend to face consequences related to the international position of their currencies. In short, these consequences are: (a) higher interest rates, which compensate for the international illiquidity of their currencies; (b) more volatile interest rates, which are a reflection of the volatility of the international preference for liquidity; (c) exchange

16 Therefore, they become less liquid at the international level if compared to central currencies, which causes peripheral countries to have to offer an additional premium as a way to compensate for this relative illiquidity so that agents demand their currencies. "Consequently, interest rates in peripheral countries tend to be higher and volatile. Additionally, the exchange rate is potentially under the pressure of this capital flows movements" (VERGNHANINI; DE CONTI, 2017, p. 16).

rates that are also more volatile, a result of the speculative and volatile logic that capital entering these countries follows; (d) less autonomy of fiscal policy because of the insertion of these countries in financial globalization (VERGNHANINI; DE CONTI, 2017, p. 27-28).

1.3 SYNTHESIS

In this chapter, the main aspects concerning the theories that underlie economic policy in the real world were presented. The analysis of the NMC was taken as a starting point since the institutional framework of Brazilian economic policy is based on this school. For this school, the main objective of economic policy should be price stability since inflationary control is essential for long-term growth. Monetary policy is placed in the center of attention, with the Inflation Targeting Regime configuring the institutional arrangement considered ideal for the conduct of economic policy. However, this theoretical framework proved limited in the face of recent events, namely the international financial crisis, paving the way for other views, especially heterodox ones.

In order to describe and demystify how the current monetary system works, MMT has as its theoretical foundations the chartalist view of money, Lerner's Functional Finance, and the notion of sovereign money. The former tells us that money was created by the state and is demanded by the public because of the existence of state taxes. Lerner (1943, p. 39-41), on the other hand, points out that the state does not "break" its own currency and therefore the focus of fiscal policy should be to promote full employment without neglecting, however, price stability. A country has sovereign currency if it issues the currency in which it taxes and spends, not promising to convert it into anything outside its control, and only indebts itself to it.

In this arrangement, the main proposition of MMT is that a sovereign state does not face any kind of financial constraint. However, it still faces real constraints associated with the availability of real resources in its economy, which can generate inflationary pressures. Moreover, fiscal policy should be the protagonist and should be conducted in a way that ensures full employment, the main goal of economic policy. Thus, a central proposal of the MMTist authors is the creation of a federal job guarantee program.

However, since we wish to analyze the possibility of applying MMT to Brazil, some caveats related to peripheral countries should be highlighted. In most cases, these have some external restriction that leads them to have the need to obtain foreign currency. In this context, often austerity policies are not merely self-imposed, as these countries are subject to some market discipline. In addition, peripheral currencies cannot perform all the usual functions of a currency at the international level because they lack international liquidity, which reduces the policy space of these countries in relation to the central ones.

In order to evaluate the applicability of MMT to Brazil, some of its specificities must be considered, such as its degree of monetary sovereignty and its external constraint. These and other institu-

tional issues, which are relevant to determine whether there is any type of constraint on the application of MMT in the country, will be analyzed in the following chapters.

CHAPTER 2 - IS BRAZIL A SOVEREIGN CURRENCY COUNTRY? AN EMPIRICAL ASSESSMENT

After analyzing the propositions of MMT and some criticisms of its applicability to the periphery, it is necessary to analyze to what extent Brazil, although it is a peripheral country, can be considered a sovereign currency country, according to the MMTist conception, and what degrees of freedom it has in determining its domestic policy. For this, an empirical analysis of Brazilian foreign indebtedness, in specific, and of the conditions of the country's external restriction, in general, and of its domestic borrowing capacity is indispensable. In addition, the question of the degree of autonomy of Brazilian policy makers to set the interest rate at any level will also be discussed.

Section 2.1 analyzes the issue of the external constraint, while section 2.2 addresses other elements relevant to our study, related to domestic indebtedness, observing empirically whether the MMTist propositions that a sovereign government has no debt constraints in its own currency are confirmed. Finally, section 2.3 summarizes the main points raised throughout this chapter.

2.1 EVALUATION OF THE BRAZILIAN EXTERNAL RESTRICTION

In order to advance in our study, it is important to analyze to what extent Brazil has some external restriction. In the past, the Brazilian economy has experienced major difficulties in foreign currency financing, the biggest mark being the foreign debt crisis that ushered in the so-called "lost decade" in the 1980s. Since then, the country meets the basic characteristics that MMT lists for classifying a country as a sovereign currency country, but the degree of economic policy autonomy continues to depend essentially on the needs the country faces from the point of view of indebtedness in currencies other than the real. To this end, we must study some indicators of external restriction of the balance of payments and the Brazilian state.

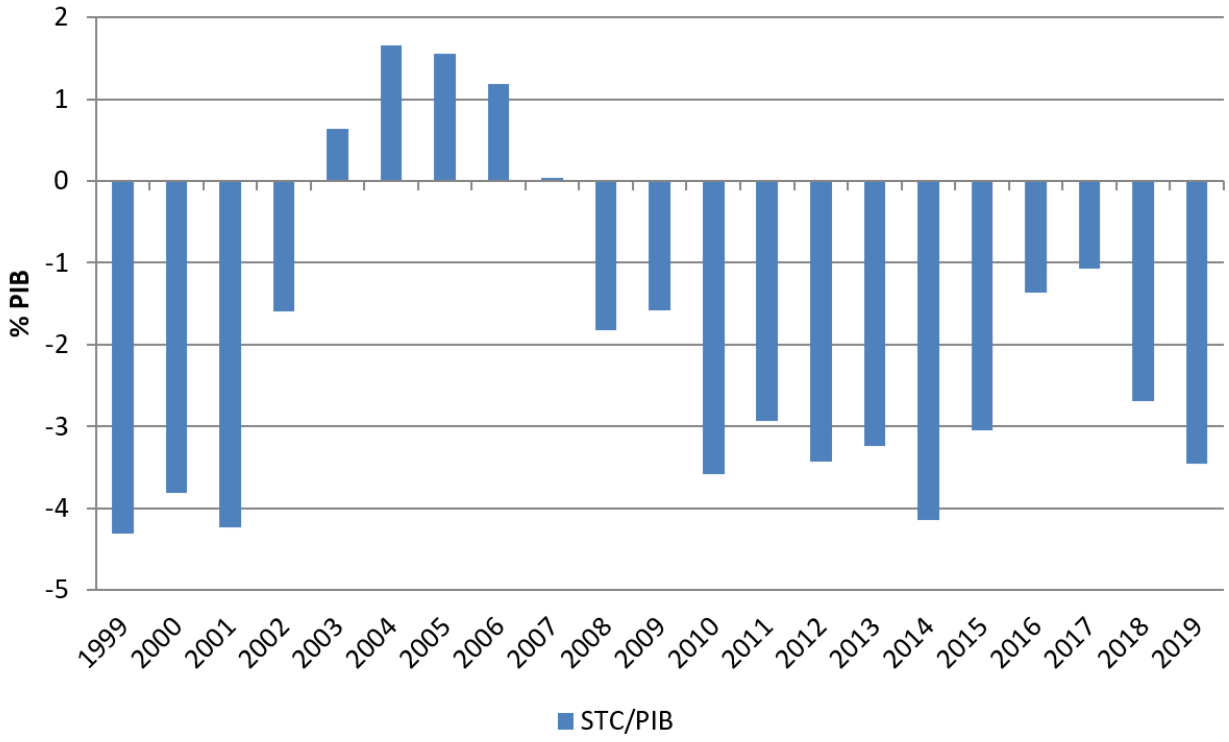
Chart 1 shows the current account balance (STC)[17] accumulated over twelve months as a proportion of Gross Domestic Product (GDP), an indicator enshrined in the literature, as indicated by Silva and Lourenço (2014).

We can observe that, in the period in question, the STC was only positive from mid 2003 to the end of 2007 (that is, before the international financial crisis), with a decline starting in 2005. This is mainly due to the reversal of the external scenario, which became benign in 2003, especially in terms of international trade. The downward trend of the STC as of 2005 can be related to the exchange

17 The current account of the balance of payments comprises the trade balance - which records exports and imports - the balance of services and income, and unilateral transfers. A country can have a deficit in current transactions, but a surplus in the balance of payments, if the surplus in the capital and financial accounts exceeds the deficit in the current account. This is what happened in Brazil as of 2007 (SILVA; LOURENÇO, 2014).

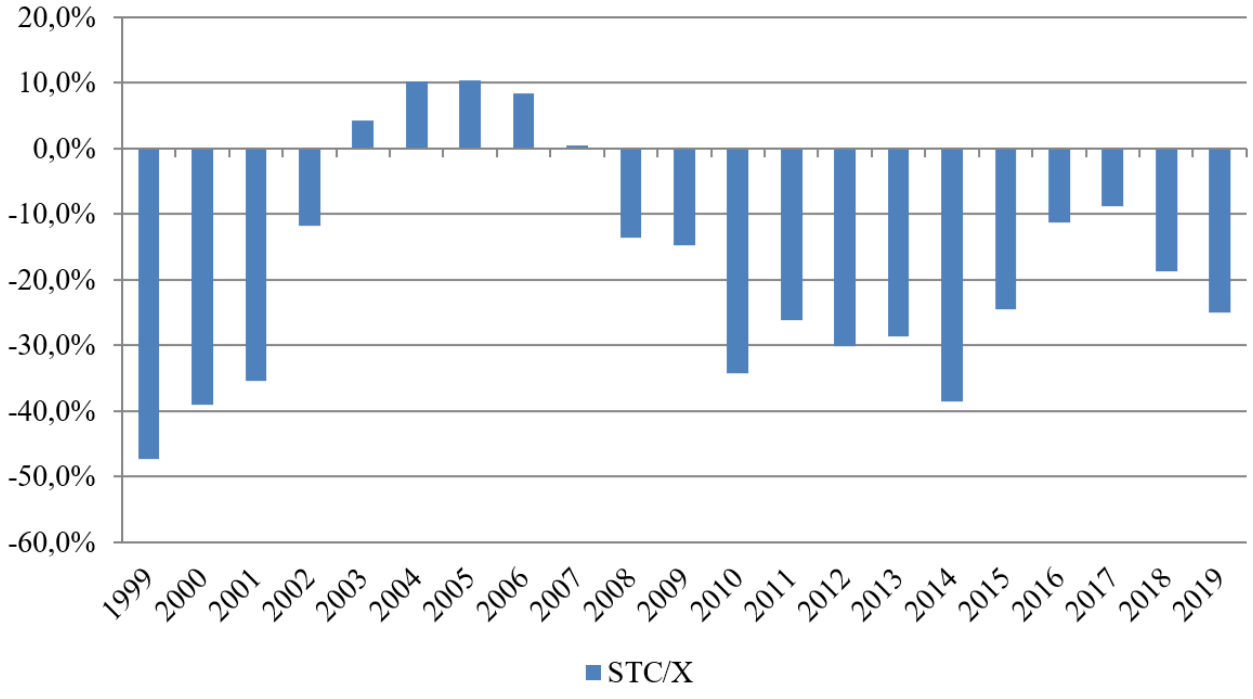
rate appreciation trend of the period and the GDP growth, factors that stimulate imports compared to exports (SILVA; LOURENÇO, 2014). The current account balance as a proportion of exports follows the same trend, as can be seen in Chart 2.

Graph 1 – Current Account Balance (% GDP) accumulated in 12 months - annual (1999-2019)



Source: BCB.

Graph 2 – Current Account Balance (% exports) - annual (1999-2019)



Source: BCB.

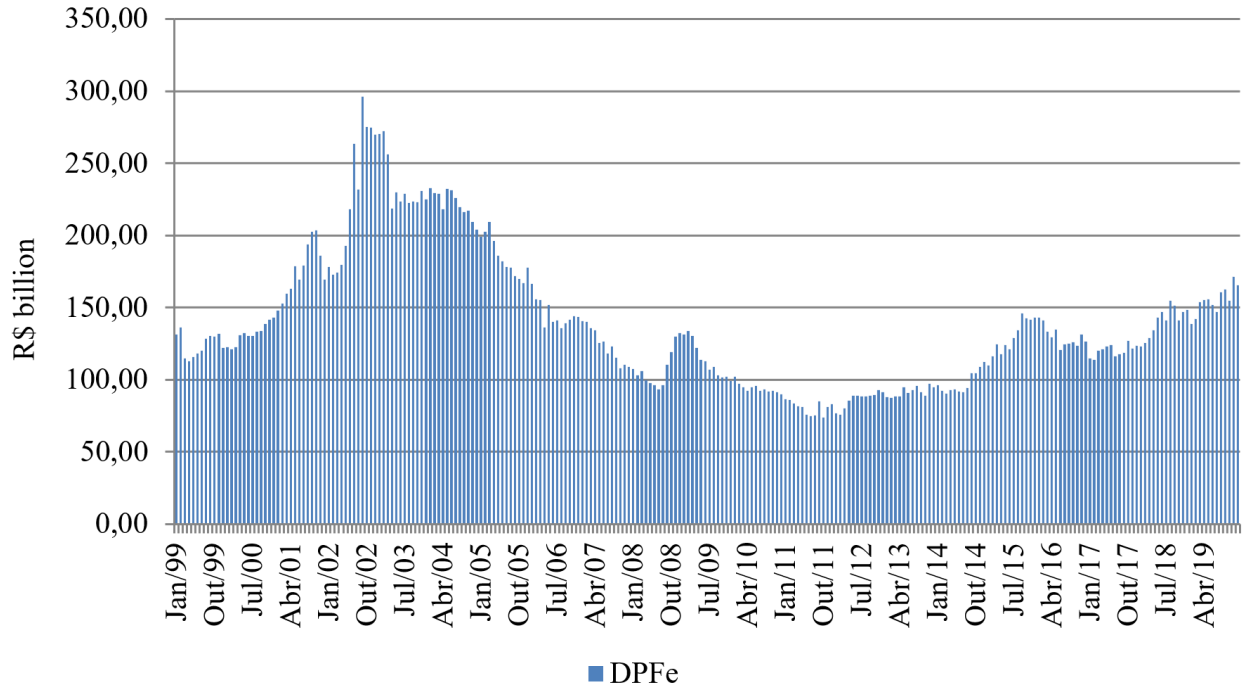
However, even after the STC became negative again, in early 2008, the balance of payments remained in surplus, to the extent that the capital and financial account financed the deficit in current transactions. The scenario of greater international liquidity and lower risk aversion, combined with the improvement of Brazilian external accounts and high domestic interest rates attracted foreign capital, which enabled the financing of this deficit and the accumulation of international reserves, which will be seen later (SILVA; LOURENÇO, 2014).

Considering the most recent period (last decade), these traditional indicators would not point to an easing of the Brazilian external constraint. They continue to indicate that Brazil needs the inflow of foreign capital to finance the current account deficit and thus have a surplus balance of payments. However, this does not necessarily mean that the Brazilian state is indebted in foreign currency. That is, by themselves they do not reveal much with regard to Brazil's external constraint, and it is essential, from the point of view of MMT, to analyze the external indebtedness of the Brazilian state.

This suffered a great reversal, as can be seen in Graph 3, which shows the evolution of the stock of federal external public debt (gross), which had been increasing since 1999. This indicator reached a peak of almost R$ 300 billion in 2002 due to the exchange devaluations in the period since the gross external debt is sensitive to the exchange rate. However, in the following years a long process of exchange rate appreciation begins, which causes this data to start a downward trend. This trend continues until 2011 (with a reversal only in 2008 and 2009, due to the international financial crisis), when a new process of exchange rate devaluation begins, making the external debt grow again, but still far from the peak of the early 2000s. The most relevant fact that this graph shows is that, over time, the Brazilian external debt does not indicate a greater dependence of the country on foreign currency.

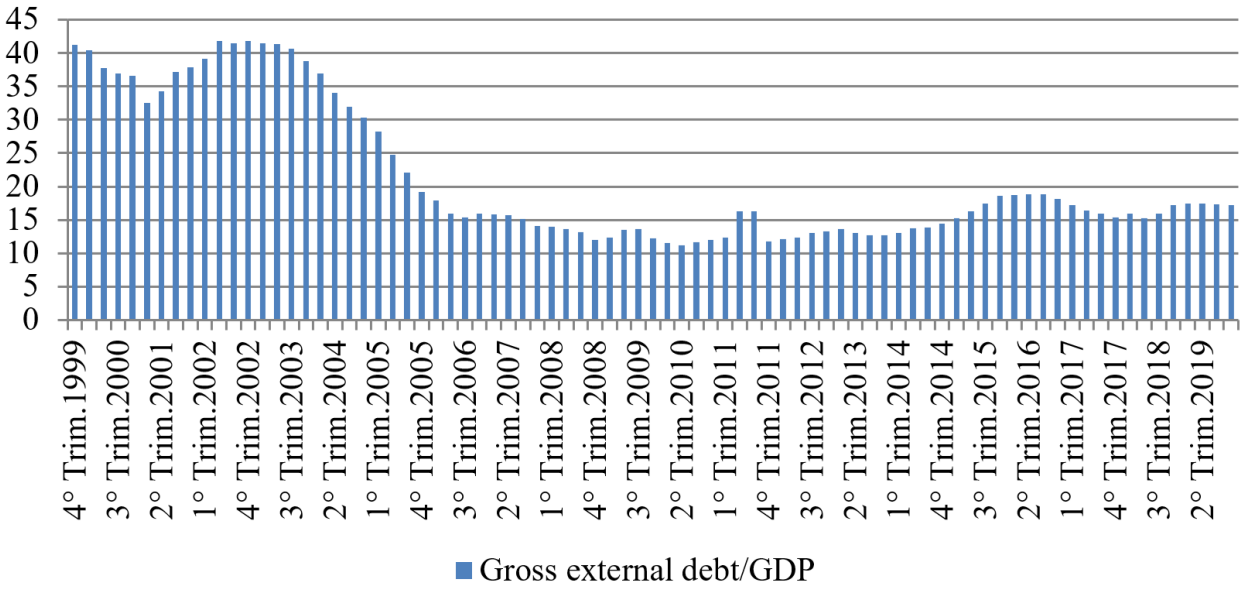
Moving on to the analysis of the gross external debt as a proportion of the GDP, we can perceive this same relevant movement of reversion of the Brazilian external debt. The graph shows a significant downward trend from the third quarter of 2003 to the third quarter of 2006, dropping from 40.6% to 15.4% of the GDP.

Graph 3 – DPFe stock (gross) (R$ billion) from 1999 to 2019



Source: National Treasury, Monthly Public Debt Report.

Graph 4 – Quarterly Gross External Debt (% GDP) (1999-2019)[18]

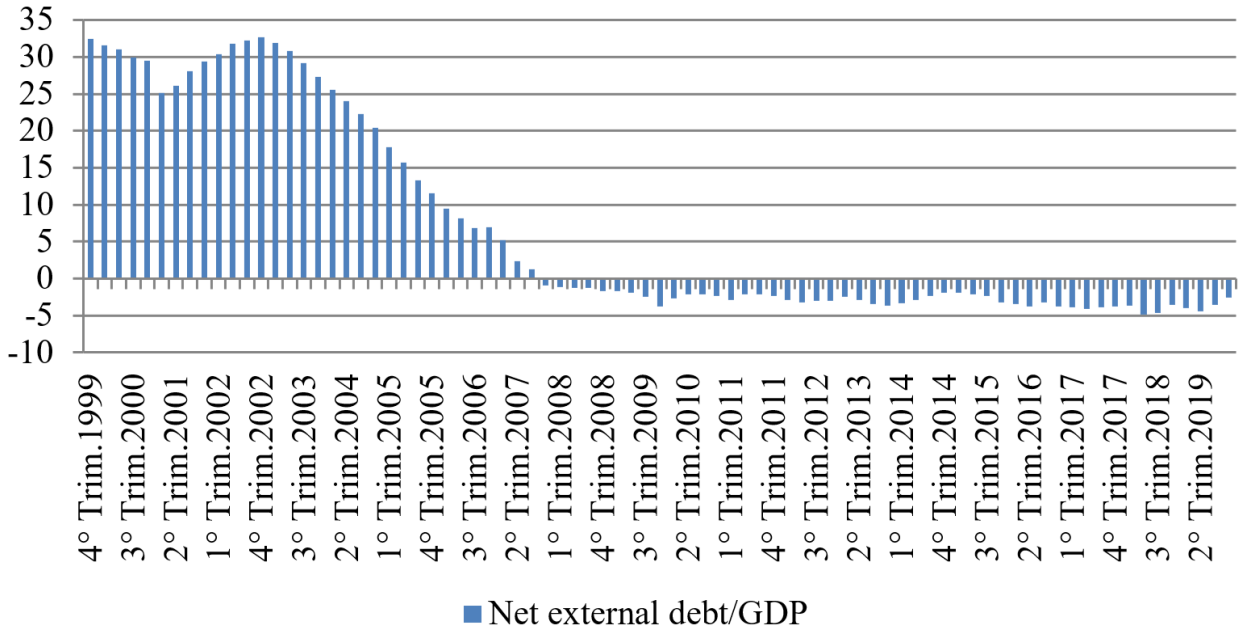


Source: BCB.

18 Data available from the fourth quarter of 1999.

Following this same line, Graph 5 shows the Brazilian net external debt[19] as a proportion of GDP, by quarter, in the period from 1999 to 2019. It is possible to see that, at the beginning of the century, Brazil had a high net external debt, which corresponded to approximately 30% of the GDP. As of 2002, this ratio begins a downward trend until, in 2007, it becomes negative, indicating that Brazil has reversed its external situation, becoming a net creditor - a situation that persists until today.

Graph 5 – Net external debt (% GDP) quarterly (1999-2019)



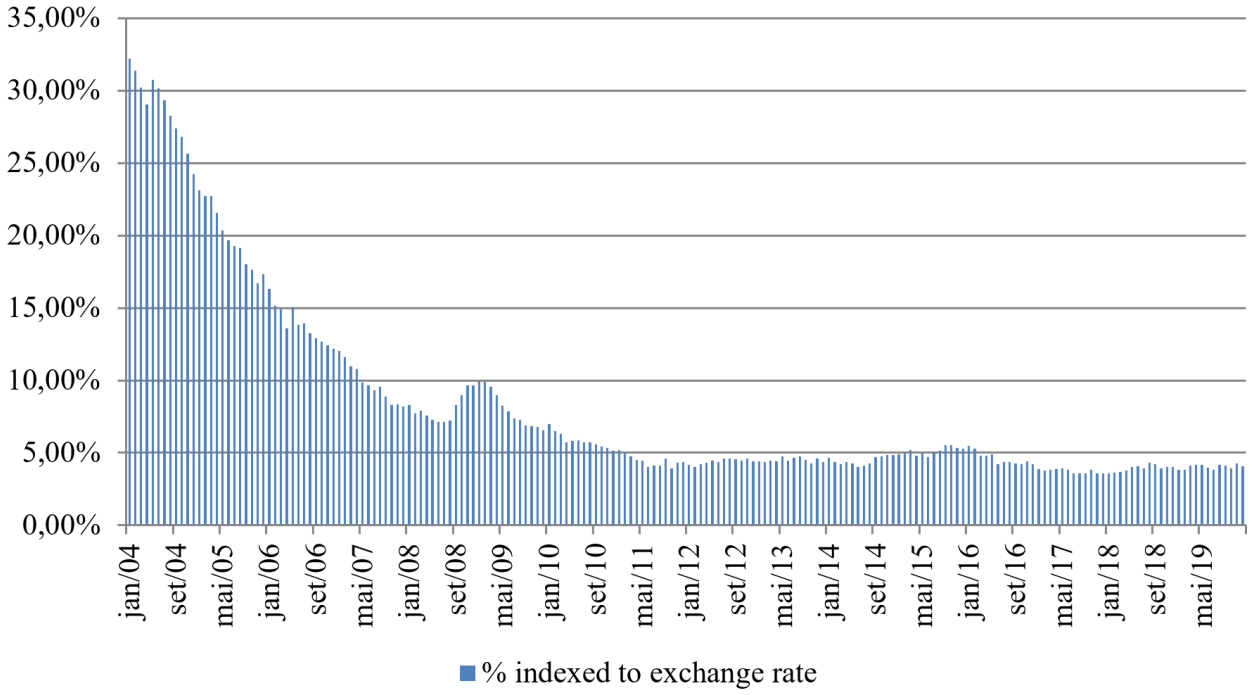
Source: BCB.

That is, when we analyze the data, we can see that the gross external debt fell throughout the decade of the 2000s and remained below 20% of the GNP in the following decade. The net external debt fell even more, due to the significant drop in the gross external debt and to the process of accumulation of international reserves in the period in question. From the point of view of the Brazilian State, this indicates a lower need to obtain currency that it does not issue, thus conferring a greater degree of freedom to Brazilian economic policy.

Another relevant movement for our analysis, which occurred during the same period, was the reduction in the weight of exchange-indexed securities in the total composition of the domestic debt. Graph 6 shows this reduction in the share of exchange-indexed securities in total DPF, especially in the period from 2004 to 2011 (with the exception of 2008 and 2009). After that, this share remained below 5% for most of the period.

19 The net external debt corresponds to the gross external debt minus the investments in foreign currency, including international reserves.

Graph 6 – DPF (%) indexed to exchange rate - monthly (2004-2019)



Source: National Treasury, Monthly Public Debt Report.

Finally, Graph 7 shows the level of Brazilian reserves over the past few years, since 1999, when the macroeconomic "tripod" was implemented.[20] What stands out in this data is the strong increase in Brazilian international reserves from 2006 onwards, a result of the policy of accumulating reserves adopted in this period, which has left the country in a comfortable situation with regard to its reserves until the present day.

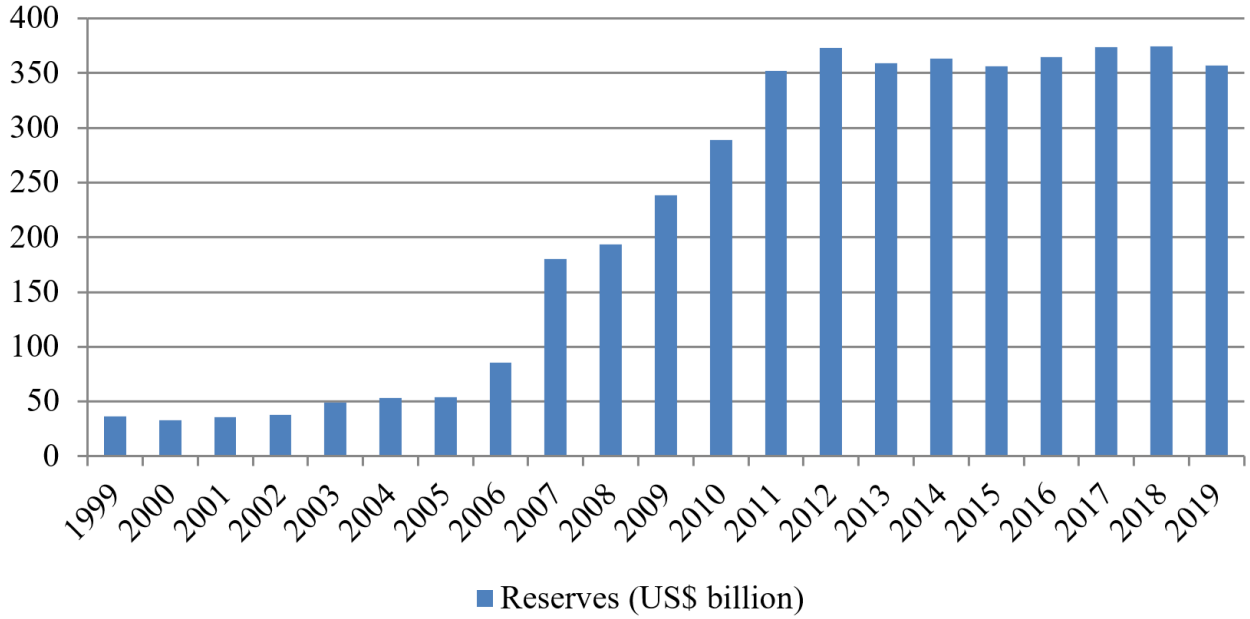
These foreign exchange reserves are especially relevant for peripheral countries, as they provide more room for maneuver in domestic policies and alleviate possible external restrictions faced by the country. As Brazil adopts a dirty floating exchange rate regime, this high level of reserves allows the BCB to intervene, when it judges necessary, in the exchange rate market in order to avoid very abrupt variations in the exchange rate, reducing its volatility.

Considering the data analyzed, we can assume that the Brazilian government does not incur relevant foreign currency debt and the domestic public debt is little indexed to exchange rate behavior, so, according to MMT, its domestic policy autonomy is not compromised as it has been in the past[21].

20 This strategy was possible thanks to the good performance of the Brazilian trade balance and favorable conditions in international financial markets (PRATES, 2010). This will be seen in more detail in the next chapter. In fact, this policy of accumulating reserves began in 2004, but the volume of Brazilian reserves only began to increase significantly from 2006, after the government settled its debt with the IMF the previous year.

21 Of course, as we saw in the previous chapter, other elements are also relevant to determine whether a country has a sovereign currency or not, such as the exchange rate regime. We will see, in the next chapter, that the Brazilian exchange rate regime is dirty floating, which also does not compromise monetary sovereignty.

Graph 7 – Level of Brazil's International Reserves (US$ billion) (1999-2019)



Source: BCB.

That is, from the point of view of the external constraint, which would be the main restriction to growth faced by peripheral countries, the applicability of MMT to Brazil would not be a problem. In addition, the high level of international reserves obtained through the reserve accumulation strategy gives the Brazilian government some room for maneuver in terms of policy autonomy.

These characteristics give Brazil some degree of autonomy in setting its interest rate, although when considering more structural issues, the country cannot set it at any level. As discussed in the previous chapter, there is an international hierarchy of currencies and the real is not at the top, which affects its determination of the interest rate level. For most peripheral countries, including Brazil, there is a floor for domestic interest rates, given by the sum of the international interest rate, i.e., the U.S. Federal Funds rate, the country risk and the expectation of currency devaluation (BASTOS et al., 2020; JORGE, 2020). In this sense, Brazil has degrees of freedom and room for maneuver, but it does not have full freedom as the U.S., due to its own external restriction and the impacts that eventual exchange rate devaluations may have on the local economy.

2.2 EVALUATION OF THE BRAZILIAN DOMESTIC DEBT

It is now necessary to analyze some data on the internal indebtedness of the Brazilian state. As we saw in the previous chapter, debt issuance is not an operation to finance government expenditures, but a monetary policy operation used to influence the interest rate, as well as a way to offer alternative assets to the private sector (JORGE, 2020). Brazil has never experienced a formal dollarization process in its contemporary economic history, but it has experienced difficulties in placing assets denominated in local currency - which, for example, fostered the need for an "indexed currency," or indexed debt, in

the period of high inflation. However, after the partial inflationary stabilization in the 1990s, the country's reality is to meet the basic conditions of a sovereign currency economy. It is necessary, however, to analyze how the conditions of internal indebtedness of the Brazilian state have evolved.

The scheme of operation between the National Treasury, the BCB and the commercial banks will be analyzed in more detail in the next chapter. It should be noted that the fact that a public expense represents a debit in the Single Treasury Account[22] (kept at the BCB) generates the erroneous idea that government expenditures depend on a credit in this account, whether through tax collection or the issue of securities. However, spending operations almost never occur simultaneously with fund--raising operations.

In this sense, Jorge (2020, p. 47) argues that this idea that public spending depends on funding is wrong, since the resources will always return to the Single Account, even if not simultaneously with the spending and even if there is a fiscal deficit. This occurs essentially for three reasons, according to the author. The first is that banks will always prefer to demand government bonds, which yield a certain interest rate, rather than keeping bank reserves, which have no yield. If the government has spent more, banks will end up with more bank reserves on hand, and the most rational and profitable decision for them is to exchange these reserves for government bonds.

The second reason is that there is a legal framework that ensures that the monetary authority will always have enough government securities to conduct monetary policy, so that it can provide infinite liquidity in terms of government securities in the open market, which reinforces them as profitable and highly liquid assets and therefore will always be in demand by investors. This is linked to the fact that the BCB must pursue the short-term interest rate target, which is done through daily management of liquidity in the open market. Thus, the BCB must control any pressures that arise in this market.

The last reason would be the existence of the primary dealer system. The dealers are financial institutions that are obliged to participate and bid in the Treasury's primary auctions. Thus, there will always be bids for Treasury securities, and the Treasury can accept them or not, according to the rates demanded by these dealers. However, the reverse is not true, that is, dealers cannot merely refuse to bid and the market cannot not accept the securities. It is exclusively the Treasury that has the power to accept or not the bid.

In short:

> *Consequently, given the Brazilian institutionality and the unique role played by the government debt in wealth allocation by the private sector, the government will always be able to pay for goods, services, and its maturing debt denominated in its own currency, and therefore, there is no risk of default in sovereign debt. The role of Central Bank purchasing Treasury debt in the secondary market provides infinite liqui-*

22 The functioning of the Single Treasury Account will be better detailed and understood in the third chapter.

> *dity for it. This fact, reinforced by the Primary Dealer System, guarantees an elastic demand for primary auctions (JORGE, 2020, p. 50).*

Jorge (2020) also emphasizes some institutional aspects that confer degrees of freedom to the National Treasury and ensure that it has greater bargaining power on the public debt market than the private sector, in such a way that it is not held "hostage" by the market and that bond issue operations are not compromised. Some of these aspects have to do with the Treasury's flexibility to adjust its issuance strategy, according to the Annual Borrowing Plan (PAF), which elaborates several scenarios of the economic conjuncture, which, in itself, already provides degrees of freedom for the Treasury to operate (JORGE, 2020).

Besides this, the Treasury has the freedom to adjust what had been previously planned for the year in relation to auction dates, the securities to be negotiated, their maturities and the total volume of issuances, all of this giving greater freedom to the debt manager. He observes the economic conjuncture and market conditions and may decide to hold auctions that were not foreseen, he may not hold the auctions that were foreseen, or he may even hold them, but not accept any offer, usually with the purpose of avoiding an increase in the cost of the public debt (JORGE, 2020, p. 50-51). However, all these changes in planning must be disclosed and justified, which provides greater transparency to debt management and, again, allows greater freedom to the Treasury, so that the cost of the debt is not "hostage" to the wills and interests of the market.

Another element that confers a greater degree of freedom to the National Treasury is the liquidity reserve, also called the "debt cushion", which consists of funds deposited in the Single Account that provide a certain flexibility of action in the face of adversity and volatility in the securities market (JORGE, 2020). These resources can be used:

> *to pay the debt and allow the National Treasury to anticipate periods of greater concentration of maturities, wait to not sanction high risk premiums demanded by the market in times of instability and honor eventual contingent liabilities (JORGE, 2020, p. 51).*

Brazilian institutionality presents some self-imposed rules that restrict the government's ability to spend and issue debt by imposing limits on public spending, such as the golden rule and the spending cap rule, which will be seen in greater detail in the next chapter. However, the Treasury's actions are not restricted by the market, since we have seen the various degrees of freedom it has.

Therefore, the fact is that, due to all the aspects addressed, the Treasury has greater bargaining power than the private sector in the public debt market and, consequently, is not subject to private wills and interests. This point is well emphasized by Jorge (2020, p. 52):

> *Even with all the restrictions on the expense side, the rules described above for the issue of securities reflect*

that the Treasury has bargaining power and real ability to define the direction of the market, whether through extraordinary auctions, the option not to hold auctions, the possibility of official strategy review and the use of liquidity cushion.

The author shows evidence that corroborate this argument by pointing out that, in the last years, the Treasury did not suffer any kind of veto to the issuance of its bonds or any persistent upward pressure on interest rates, managing to successfully sell its bonds. In other words, there are no "bond vigilantes"[23] and the market has no bargaining power to threaten the National Treasury in any way. In addition, not even the downgrades[24] that the country suffered, with loss of its investment grade rating, were capable of generating persistent pressure or changes on auction rates or on the quantity of securities sold.

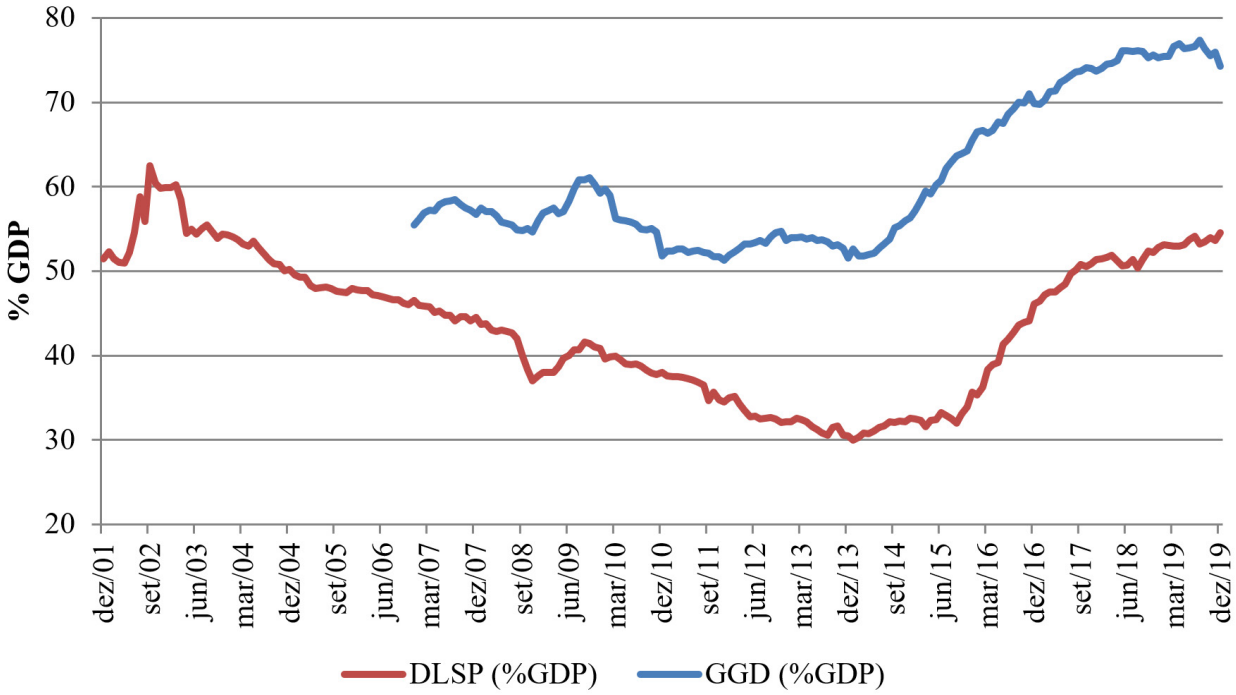
As we have seen, if the Treasury does not want to pay a certain rate because it considers it too high, it has bargaining power to reject the market offers, and even if it does not sell any bonds, the BCB will act by draining excess reserves in the interbank market in order to keep the interest rate on target.

Chart 8 shows the evolution of Brazilian domestic indebtedness in recent years (2001 to 2019) and Chart 9 uses Jorge's (2020) methodology, based on an empirical analysis of the National Treasury primary auctions throughout the 2000s, and which compares the behavior of indebtedness with the quantity of public securities sold in relation to the quantity offered by the Treasury, this being a proxy of market "acceptance" and a measure of the "ease" of placing securities by the Treasury.

23 "We should stress that the expression "bond vigilantes" refer to the idea that bond buyers (mainly private financial sector) can react to the deterioration of fiscal variables, pressuring to not finance the government or to corner the Treasure and impose long term interest terms hikes. As mentioned before there is no substitute for Treasury bonds in terms of combination of liquidity and remuneration. However, it is not the same to say that the definition of the basic interest rate by the Central Bank, and hence the interest rate of treasury bonds, has no structural constraints. In a developing country there is a floor given by the Federal Fund Rate plus country risk and expected rate of devaluation. Interest rates also play an important role through capital inflows and exchange rate control to curb inflation." (JORGE, 2020, p. 53).

24 A downgrade occurs when rating agencies lower the rating of a given country, which, if it falls below a certain level, can lead to a loss of investment grade. This occurred in Brazil in late 2015 and early 2016 (JORGE, 2020).

Gráfico 8 – General Government Gross Debt as a proportion of GDP and Total Consolidated Net Public Sector Debt as a proportion of GDP (2001-2019)[25]

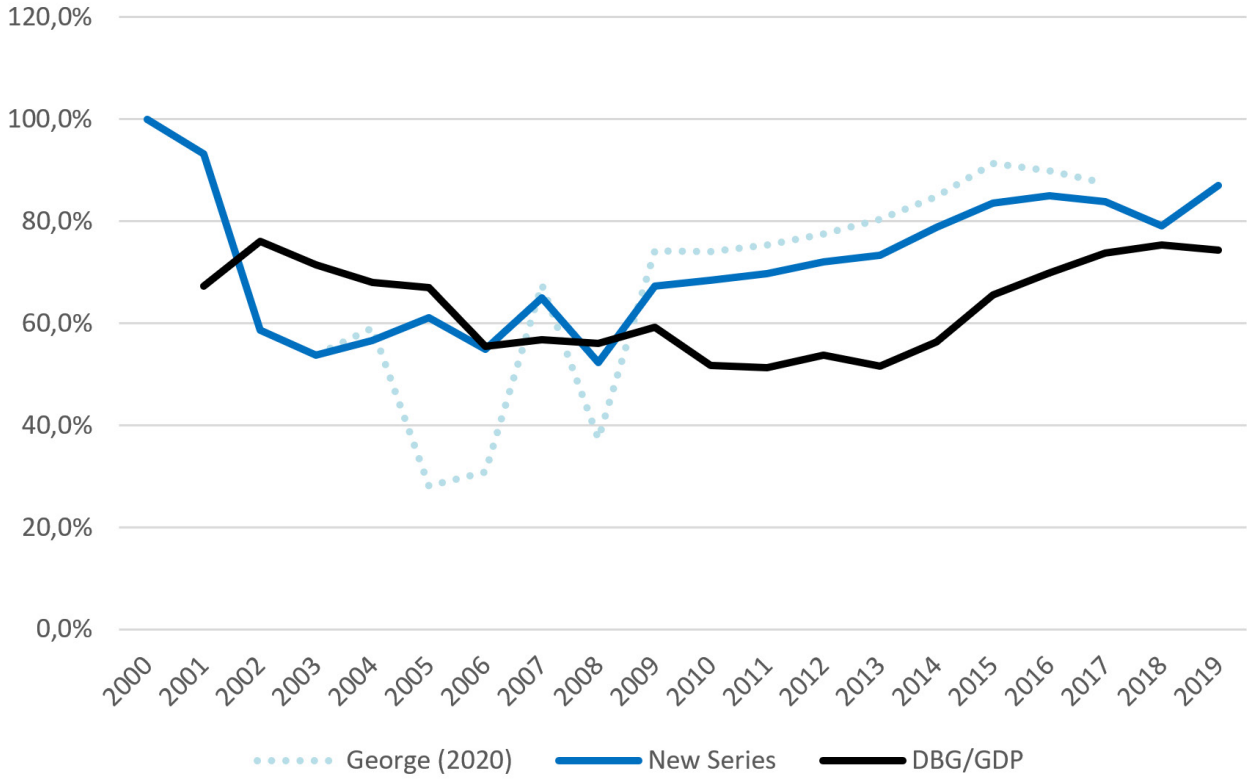


Source: BCB.

The author concludes that there was no type of market rejection of securities as a result of the recent increase in the public debt stock. This is because the quantity of securities sold (in relation to the total offered) increased, even with the increase, as of 2014, of the debt stock as a proportion of the GDP. Moreover, the volume sold in this period was higher than in 2003-2006, when the debt/GDP ratio was being reduced. Therefore, "It doesn't seem that an increasing stock of the debt leads to a distrust in the Treasury by the market in the form of refusing to buy its bonds at issue" (JORGE, 2020, p. 54).

25 The data for Net Public Sector Debt as a proportion of GDP are only available from December 2001 and those for General Government Gross Debt as a proportion of GDP from December 2006.

Chart 9 – Gross general government debt as a proportion of GDP (annual) and quantity of securities sold by the Treasury at auctions (% total annual supply) (2000-2019)

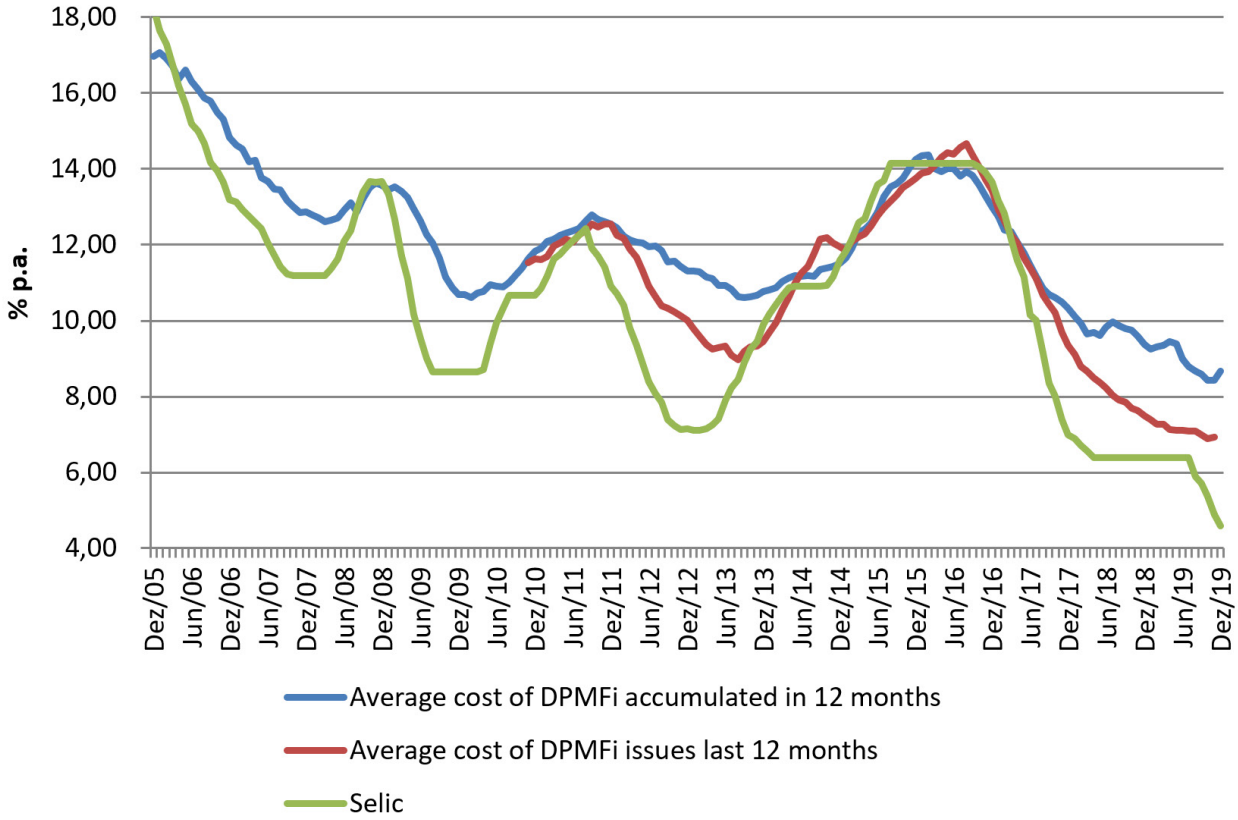


Source: JORGE (2020) and Tesouro Nacional.

Furthermore, Graph 10 reveals that the average cost of debt has not increased, although, as we have seen, the debt/GDP ratio has risen since 2014. In fact, the Treasury increased the quantity of new issues and the average cost followed the trajectory of the Selic[26], decreasing as of 2016. Therefore, it is clear that, in addition to not compromising the Treasury's capacity to sell its securities, the increase in the stock of debt did not persistently influence its average cost.

26 The average cost of the debt is related to the short-term interest rate (Selic, defined by the BCB), because a large part of the debt is indexed directly to Selic, through the Treasury Financial Bills (LFTs), and because Selic serves as a reference for all other rates (JORGE, 2020).

Graph 10 – Average cost of DPMFi accumulated in the last 12 months (% p. a.), average cost of DPMFi public offerings in the last 12 months and annualized accumulated Selic rate in the month (2006-2019) [27]

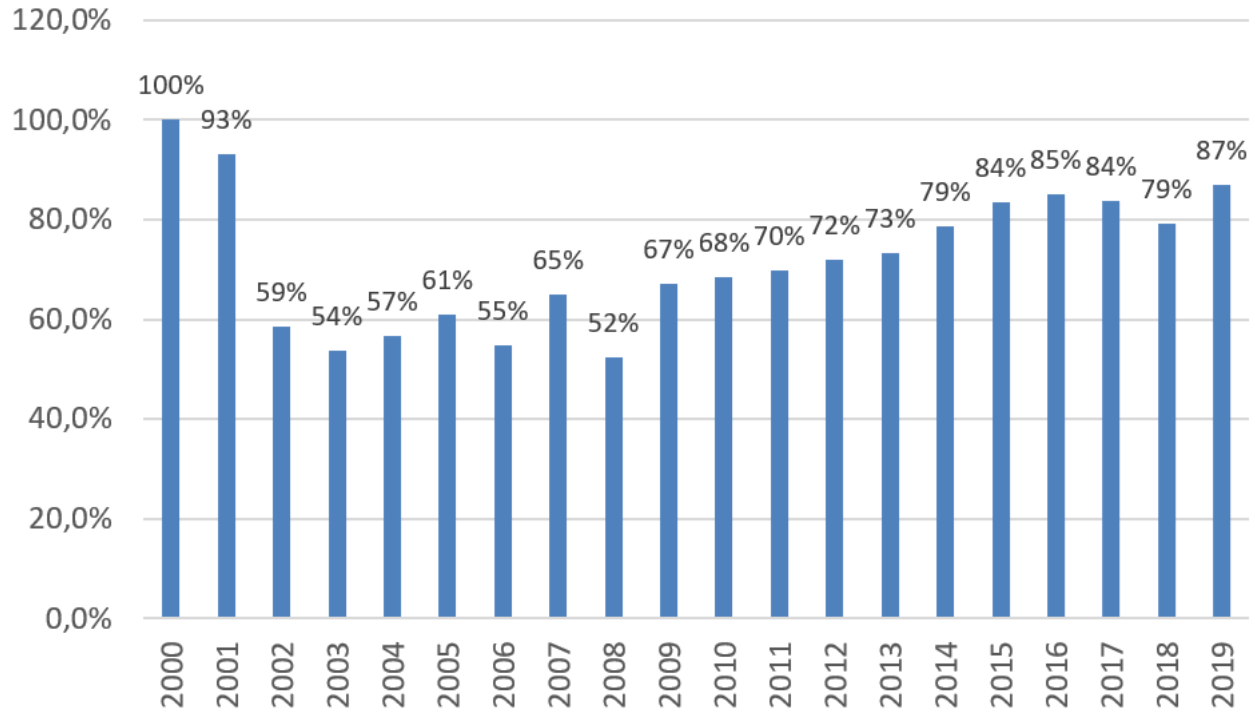


Source: BCB and the Monthly Public Debt Report (National Treasury).

Until 2005, Brazil still had a public debt highly indexed to the dollar. However, as seen previously, the country was able to reduce this indexation to the dollar, which made it possible for the Treasury to have a greater degree of success in supplying securities on the public debt market. This can be observed in Graph 11, which shows more clearly the quantity of securities sold in relation to the quantity offered by the Treasury. In certain periods of greater turbulence and adversity, sales dropped, which is to be expected, but this has to do with the uncertainty of the moment, and not with the size of the debt or the deficit.

27 The data on the average cost of DPMFi accumulated in the last 12 months are available only from December 2005, and those on the average cost of DPMFi issues in the last 12 months from December 2010.

Graph 11 – Quantity of securities sold in relation to the total offered by the Treasury (%) (2000-2019)



Source: JORGE (2020) and Tesouro Nacional.

In sum, the data above corroborate the argument that the National Treasury does not face any persistent difficulty[28] in terms of primary issues and rolling over the public debt, even in the face of an increase in its stock, as well as not being "hostage" to the market, since Brazilian institutionality gives the Treasury flexibility to operate. In the words of Jorge (2020, p. 73):

> *We conclude that the market has no bargaining power to demand persistent risk premiums and threaten the ability of the Brazilian Government to spend in its own currency. As can be seen from the above analysis, there are no "bond vigilantes" in Brazil capable to prevent the use of fiscal policy and public debt in Reais to pursue full employment and economic development.*

Another relevant issue open to discussion is the profile of the Brazilian domestic debt. This is quite concentrated in the short term and in floating rate (or post-fixed) securities. Many economists argue that this is bad and reflects the negative characteristics of the Brazilian public bond market and the existence of "vigilant bonds", which generate upward pressure on interest rates and prevent the lengthening of the debt.

However, as we have seen, the data analyzed do not seem to ratify the idea that there may be a "threat" to the issue of securities by the Treasury. The profile of the Brazilian debt is not merely a result

28 At times of uncertainty and greater volatility in the financial market, some difficulties may arise. In these contexts, in general the issues of floating rate and shorter maturity bonds increase, while those of fixed rate and longer maturity bonds decrease. In addition, the interest rates at auctions may also increase. However, these effects are temporary and pass as soon as conditions return to normal (JORGE, 2020).

of the wishes of the market, but may have an impact on Treasury costs, particularly in adverse periods of rising interest rates.

Jorge's (2020) argument is that the profile of the debt is not as relevant as it appears to be in the economic debate[29], because regardless of the profile, the government is always able to intervene in the public bond market, especially to ensure market stability.

Even with a debt with a long-term profile and pre-fixed rates, in adverse moments and of greater uncertainty, investors tend to exchange such assets for short term securities and with floating rates (post-fixed). Likewise, the central bank should repurchase the securities that are losing value (with long maturity and floating rates) in order to avoid the collapse of the system, and the Treasury will continue with its auctions, issuing securities that are more appropriate to the conjuncture. In the words of Jorge (2020, p. 77):

> *This doesn't mean that these institutions are captured by the market, this just means that in a modern capitalistic monetary system, where the Central Bank has to guarantee stability, debt profile is not as relevant as expected by this literature, because bonds that are losing value will be repurchased in order to prevent massive losses and financial instability. This bonds are going to be substituted by short and post fixed rate bonds, and the Treasury will maintain its auctions normally.*

Moreover, a more mature debt does not indicate greater or lesser government strength, that is, it does not mean that the government has greater or lesser ability to finance itself, because, according to MMT, this would not even be an issue.

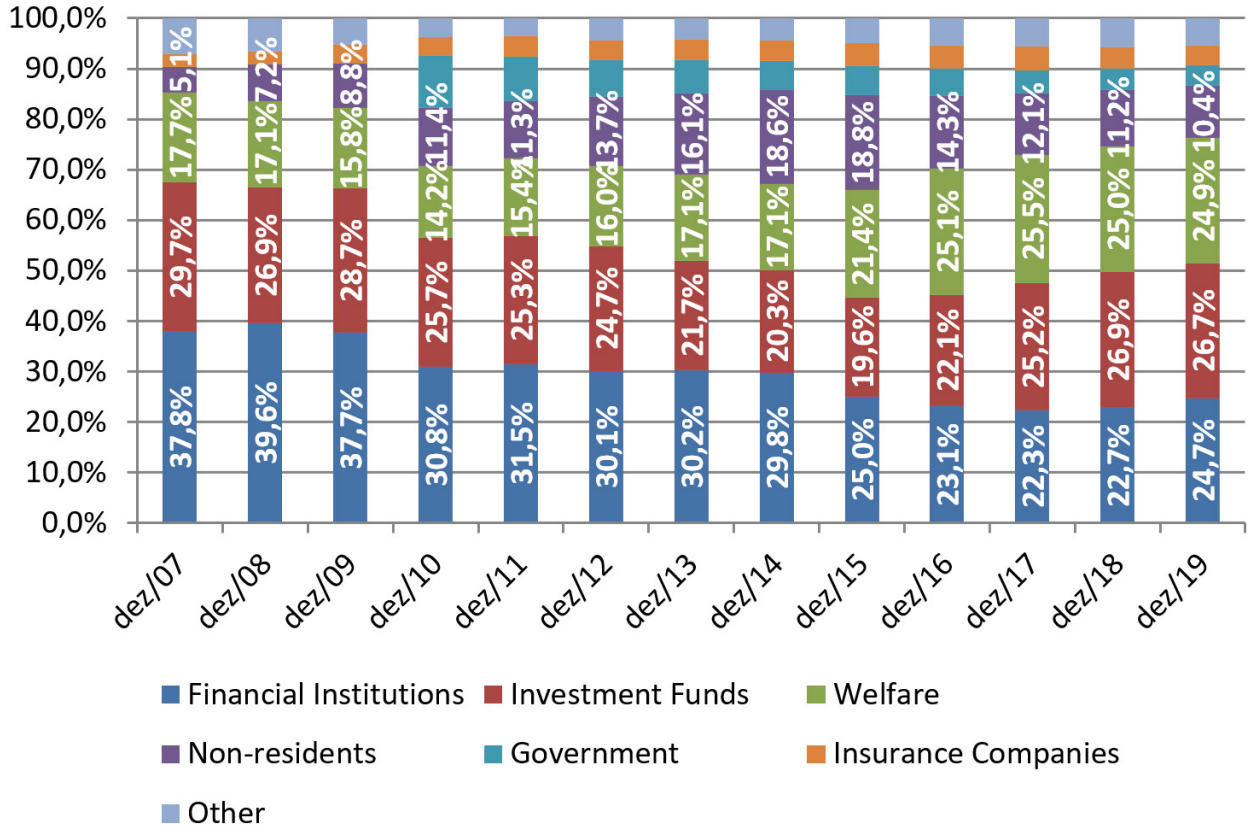
The cost of the public debt is more under control of the government than of the market, since the BCB directly determines the basic interest rate (as an operation of monetary policy) and the Treasury can reject offers from agents if the rates they demand are too high.

Another relevant point concerns the holders of the national debt, especially the participation of non-residents. As we will see in the next chapter, the financial opening and the absence of capital controls have allowed a large participation of non-residents in Brazilian markets, which may increase exchange volatility and Brazil's external vulnerability.

However, Graphs 12 and 13 show that their participation among the total holders of public debt is not so relevant, that is, the national debt is mostly in the hands of residents (Brazilian institutional investors and financial institutions). Furthermore, in recent years the participation of non-residents has fallen. This means that Brazil is to a certain extent protected against more abrupt capital outflows, since these would not end up having a direct impact on the Treasury's capacity to place the domestic public debt.

29 In addition, Jorge (2020) also argues that the main cause for the Brazilian debt profile being short-term and floating-rate is not the existence of LFTs, but rather the level of interest rates (set by the BCB), which is not related to the risk perception of agents or the existence of "vigilant bond". If interest rates were lower and stable, the participation of LFTs in the composition of the debt stock would tend to reduce naturally, and the debt would also tend to lengthen, depending on future expectations for interest rates.

Graph 12 – Annual DPMFi Holders (%) (December of each year) (2007-2019)



Source: Tesouro Nacional, Relatório Mensal da Dívida Pública (National Treasury).

Considering the above and the first chapter, it is clear that a government with a certain autonomy in domestic policy (such as the Brazilian government), according to MMT, can always finance its expenditures in its own currency and should not be concerned about the risk of domestic debt default, since this does not exist. It is possible to conclude that the Brazilian National Treasury does not systematically have any evidence of any difficulty in placing federal public bonds. In addition, we were able to observe that the cost of carrying public debt has evolved favorably over time, especially in more recent years, in spite of the increase in indebtedness, contrary to neoclassical propositions.

Graph 13 – Weight of non-residents in the annual DPMFi (December of each year) (2007-2019)

Source: National Treasury, Monthly Public Debt Report.

2.3 SYNTHESIS

The analysis conducted in this chapter investigated whether Brazil has a national government capable of establishing the economy's unit of account, of imposing obligations denominated in that unit of account, and, further, of issuing currency and obligations against itself denominated in the given unit of account, which can be paid for with the currency it issues.

From the analysis carried out it is possible to conclude that the Brazilian state has a certain degree of autonomy in determining its national economic policy, whose evolution has been quite favorable in the last few years. Although there is a structural question linked to the external restriction, which is emphasized by criticism of the application of MMT in the periphery, Brazil has managed to evolve considerably over the last two decades in the sense of reducing its exposure in terms of the state's indebtedness in foreign currencies. This occurred through the reduction of external indebtedness (both gross and net) and the process of deindexing the public debt in relation to the exchange rate.

This reduction in exposure to the dollar in terms of public debt has conferred degrees of freedom to Brazilian economic policy makers, who now have greater autonomy in establishing domestic economic policy (even if this autonomy is relative). In addition, it was also exposed that the Brazilian state has a very large capacity to borrow in domestic currency without facing major restrictions. Based on the work of Jorge (2020), it was shown that the National Treasury did not have major problems in rolling over the debt in local currency, despite the fact that the profile of the Brazilian debt is short term and with post-fixed rates, with a high success rate in primary auctions.

Eventually, in moments of greater turbulence this rate may fall, but this is normally due to short-term market conditions, and therefore, in general, there is no indication of persistent difficulty in issuing debt. Furthermore, the significant increase in Brazilian indebtedness in recent years does not seem to be correlated to an increase in the cost of the debt, contrary to the idea that an increase in debt could generate some perception of insolvency.

Therefore, considering what has been discussed, at least from an empirical point of view, Brazil seems to have a relative degree of domestic policy freedom from the perspective of the MMTist conceptual framework, although the real is not at the top of the international hierarchy of currencies. In this sense, the Brazilian state: (a) does not face a budget constraint in the conventional sense; (b) cannot "break" in its own currency; (c) can always honor its obligations (denominated in the currency it issues), which is corroborated by the evidence that the Treasury does not have difficulties in placing bonds in the market; and (d) has some autonomy to set the interest rate on its bonds, although it has a floor, given by the sum of the international interest rate, the country risk and the expectation of exchange rate devaluation (BASTOS et al., 2020; JORGE, 2020).

Since these limitations are not present from a theoretical point of view, the focus of the investigation turns to the relevant, and to some extent self-imposed, institutional aspects that condition economic policy. Would these be the aspects that prevent, in fact, the adoption of policies more in line with the views of Functional Finance and MMT? This question is addressed in the next chapter.

CHAPTER 3 – THE INSTITUTIONAL FRAMEWORK OF ECONOMIC POLICY IN POST-1999 BRAZIL

In 1999, Brazil adopted a macroeconomic policy regime based on a tripod composed of inflation targets, floating exchange rate and primary result targets[30]. The inspiration for this arrangement can be associated with the New Macroeconomic Consensus, since the control of inflation and the search for macroeconomic stability were listed as the main objectives, and the institutionality behind the pursuit of these objectives was established based on the precepts of this trend.

Throughout this chapter we will see that, although it has been operated in different ways depending on the conjunctural conditions, the regime designed in 1999 and the central objectives allied to the NMC have prevailed, creating important ties to Brazilian economic policy. In other words, at no time was the "tripod" itself eliminated, since the institutional framework of economic policy was not changed, either in the Lula or Dilma administrations.

In fact, after the impeachment in 2016, the operation of the tripod became even more rigid. From then on, in a context of political and economic crisis, the Brazilian macroeconomic policy regime turned "to a radical liberal orthodoxy that deepened recession and unemployment instead of

30 In fact, the macroeconomic regime adopted from that moment on should be characterized as a "tetrade", as it is important to also consider the absence of capital controls as a relevant aspect of such a regime (MARTINS, 2017).

trying to overcome them" (OREIRO; PAULA, 2021, p. 12). A landmark measure of this "new" regime was the adoption of the spending cap rule, which will be analyzed in this chapter along with other elements that characterize the institutionality of economic policy in Brazil.

The chapter is organized in three sections, in addition to this introduction and the conclusion. Section 3.1 discusses the main features of the monetary policy regime, with emphasis on the inflation targeting regime. Section 3.2 reviews exchange rate policy and capital controls. Section 3.3 focuses on the fiscal policy regime, highlighting the main fiscal rules that constrain public spending in Brazil. Finally, the conclusion summarizes the main points of the chapter, indicating the current institutional aspects that clash with the prescriptions of MMT.

3.1. MONETARY POLICY: INFLATION TARGETING REGIME

3.1.1 The transition from the exchange rate anchor to the Inflation Targeting System

The IMR was implemented in several countries as of the 1990s, and in Brazil this occurred in 1999. In that year, an exchange rate crisis forced the central bank to abandon the exchange rate anchor previously employed, which marked the end of the transition process foreseen in the Real Plan (MODENESI, 2005). From 1999 on, the government started to set inflation targets through the National Monetary Council, and the BCB was given the role and operational independence to conduct monetary policy in order to meet them (BOGDANSKI; TOMBINI; WERLANG, 2000).

The Real Plan was adopted in 1994 and was successful in controlling inflation, having as a reference the process of deindexation and elimination of inertial inflation and the mitigation of distributional conflicts through the adoption of an exchange rate anchor. This exchange rate anchor remained in place for a long period of time, due to fears of an inflationary spike. The flexibilization of the exchange rate target regime was very slow, so that the maintenance of the anchor became unsustainable, especially in the context of the second half of the 1990s, marked by successive external crises in emerging economies (MODENESI, 2005).

The use of the exchange rate anchor provoked an overvaluation of the real, which deteriorated the balance of payments. In this scenario, the BCB was forced to raise interest rates to attract foreign capital, which, on the other hand, had a negative impact on public accounts (ARESTIS; PAULA; FERRARI-FILHO, 2009; MODENESI, 2005). This, in itself, already threatened the maintenance of the exchange rate target regime, which presupposed that Brazil had fiscal austerity. In other words, the exchange rate flexibilization became an even greater necessity due to the strong fiscal imbalance, which was aggravated by the high interest rate policy that, in turn, was necessary for the maintenance of the exchange rate anchor itself (MODENESI, 2005).

Given the internal and external macroeconomic imbalances, the new Brazilian currency became increasingly vulnerable to speculative attacks (ARESTIS; PAULA; FERRARI-FILHO, 2009;

MODENESI, 2005). With this growing expectation of exchange rate devaluation and the inability to maintain the anchor, the demand for foreign currency increased and the BCB was forced to sell its reserves to maintain the anchor. Because of this, the level of reserves of the BCB was drastically reduced, aggravating the unsustainability of the regime. In this context, in January 1999, the Brazilian authorities were forced to abandon the exchange rate anchor, which was replaced by a dirty floating exchange rate regime[31,32] (ARESTIS; PAULA; FERRARI-FILHO, 2009; FRAGA, 2009; PRATES, 2015; MARTINS, 2017; MODENESI, 2005; BOGDANSKI; TOMBINI; WERLANG, 2000).

Given Brazil's history of chronic high inflation, the adoption of a nominal anchor was considered very relevant to coordinate expectations and to guide price formation in order to maintain price stability. Thus, in the beginning of 1999, the IMR was informally introduced, which was only formalized in June of the same year[33]. The justification for its adoption was that the regime was the most appropriate option to maintain price stability in the face of the new floating exchange rate regime, and the inflation targets themselves would function as a new nominal anchor for economic policy (FRAGA, 2009; MODENESI, 2005; BOGDANSKI; TOMBINI; WERLANG, 2000).

3.1.2 Institutionality: characteristics of the Inflation Targeting System in Brazil

In the IMR, a target (which can be a point target or a band target) for the inflation rate (calculated on the basis of some price index) and a time horizon for achieving it are stipulated and announced. The target is determined by the government and should be pursued by the central bank, which should conduct monetary policy with a single objective in mind, the achievement of the target[34]. For this, the main monetary policy instrument used by the monetary authority is the short-term interest rate (CARVALHO et al, 2012; MARTINS, 2017).

The operational characteristics of the Brazilian IMR are as follows: there is a central target, but with tolerance intervals; the time horizon is one year (but targets are defined two years in advance); and a full index is used to define the target, the Broad Consumer Price Index (IPCA)[35].

Inflation targets are set and announced by the National Monetary Council (CMN), composed of the Ministers of Finance or Economics and Planning[36] and the President of the BCB. The CMN

31 A dirty floating exchange rate regime is characterized by sporadic intervention by the monetary authority in the foreign exchange market, in order to avoid very sharp swings in the exchange rate.

32 The floating exchange rate regime was implemented by Communiqué n. 6.565, of the BCB, of 1999.

33 The IMR was formally implemented by Presidential Decree 3.088, of June 21st, 1999.

34 As already stated in the first chapter, there are more flexible versions of IMR, in which the primary objective of price stability can be accompanied by a secondary objective (usually output stabilization), as long as the latter does not compromise the former (ARESTIS et al., 2009; CARVALHO et al., 2012; PAULA; SARAIVA, 2015).

35 The IPCA is calculated by IBGE based on a consumption basket of urban families that earn between 1 and 40 minimum wages.

36 Currently, represented by the Special Secretary of Finance of the Ministry of Economy.

determines the central targets and the tolerance interval[37]. On the other hand, the BCB is responsible for enforcing inflation targets and has operational autonomy to do so[38]. Monetary policy decisions are made by the Monetary Policy Committee (Copom), composed of the institution's board of directors, which periodically sets a target for the Selic rate that it considers compatible with the stipulated inflation target[39].

The target is formally met if actual inflation at the end of each year is within the established tolerance interval. If it is breached, the president of the BCB has to write a public letter to the Minister of Economy, explaining the reasons for non-compliance and the measures to be taken to resume the target, as well as the time period in which such measures are expected to take effect (CARVALHO et al., 2012).

Among the different experiences around the world, the Brazilian inflation targeting regime can be considered a rigid regime, since the price index used as reference is full, not allowing greater accommodation in the face of inflationary shocks, the time horizon is short, only one year, and, more recently, operates with restricted bands. All these factors contribute to a more rigid conduct of monetary policy, which ends up limiting the possibilities of the central bank's actions to the commitment to the inflation target or the convergence of inflation expectations to the stipulated interval.

3.1.3 Brazilian experience of the Inflation Targeting Regime: the conduct of monetary policy between 1999 and 2019

Since the adoption of the IMR, Brazil has been known to practice an extremely restrictive monetary policy, always being among the countries with the highest interest rates in the world (MARTINS, 2017).

As will be analyzed in the rest of the chapter, the adoption of the IMR was not the only important institutional change that occurred at that time: virtually the entire Brazilian economic policy framework came to be guided by the postulates of the NMC, with the interest rate assuming the role of "'helmsman' of Brazilian economic performance"(MARTINS, 2017, p. 4-5).

In the first years of the IMR, the result achieved was mixed. In 1999 and 2000, the inflation targets were met, even if adjusted, but in the following triennium the same result was not obtained - in the case of 2003, this occurred even though the target had been readjusted upwards on two occasions[40].

37 In Brazil, the tolerance range has been 2% to 2.5% above and below the central target (ARESTIS et al., 2009; CARVALHO et al., 2012)

38 In 2021, Complementary Law 179 granted formal autonomy to the BCB, with alternating mandates for its directors.

39 In addition, Copom can also determine a bias for the interest rate: when the bias is bearish (bullish), the president of the BCB can reduce (increase) the basic interest rate, if he/she deems it necessary, before the next regular meeting of the Committee, without the need to call an extraordinary meeting. The expedient, however, is not commonplace.

40 For more details, see Modenesi (2005) and Arestis et al. (2009).

The interest rates practiced were excessively high[41] if compared to international peers (MODENESI, 2005, p. 388), indicating that the interest rate aimed to have some influence on the exchange rate, which is a central variable in determining domestic inflation[42] (ARESTIS; PAULA; FERRARI-FILHO, 2009).

However, there are consequences related to this practice of very high interest rates, such as the limitation of economic growth, which can be proven by the poor performance of Brazilian GDP in these years[43], and the increase in public debt. Moreover, despite the rigidity of monetary policy and its consequences, such as exchange rate appreciation and low economic growth, Brazilian inflation remained high[44], even if relatively lower than in the pre-Real Plan period.

During the Lula administration, with Meirelles as president of the BCB (2003-2011), Brazilian monetary policy was also operated in a tight manner, even though there was a reduction in nominal interest rates. It was, in fact, under Meirelles that the targets started to be met more consistently. The "high interest rate problem" was perpetuated by the characteristics of the Brazilian regime itself.

Under Tombini's administration, already in the Dilma Rousseff government, Copom even made an unexpected cut in the Selic rate, despite expectations of accelerating inflation, taking the interest rate to the then historic minimum, which marked a break with the previous form of management.

However, this experience of disruption in monetary management did not last long, because in mid-2013, inflation began to rise again and the BCB reacted quickly, raising the Selic rate and resuming the position of one of the countries with the highest interest rates in the world. This increase was systematic from 2013 on, despite signs of economic slowdown. Despite this scenario, the impacts on inflation were limited (MARTINS, 2017).

From the end of 2014, the policy strategy began to focus on the coordination of expectations, which led the CMN, in 2017, to maintain the inflation target, but reducing the tolerance interval from 2.0 to 1.5 p. p. This new strategy added, as communicated by BCB directors, more rigidity to the lower Selic, evidencing the intensification of the restrictive conduct of monetary policy. Only in the most recent period, after a deep recession - qualified by some authors, even, as a depression (SICSÚ, 2019) - and the adoption of structural reforms that undermined workers' bargaining conditions, with a somewhat more favorable external scenario, the central bank started a sustained reduction in the interest rate, which brought the Brazilian economy more in line with its international peers.

41 In the years 1999 to 2005, the average Selic was 19.6% and the average real (deflated) interest rate was 10.5% p.a. (ARESTIS et al., 2009).

42 Peripheral countries tend to have a higher exchange rate pass-through, especially in Latin American economies, since these have "a higher degree of economic openness, a history of high inflation, and low central bank credibility" (ARESTIS et al., 2009, p.25).

43 The average GDP growth rate in the years 1999 to 2005 was 2.6% p.a. (ARESTIS et al., 2009).

44 "Average inflation between 1999 and 2005 was around 8.2% per year" (ARESTIS et al., 2009, p.24)

Notably, considering Brazil's condition as an emerging country, which tends to have a relevant pass-through effect, the conduct of monetary policy may sometimes be subject to avoid volatility and abrupt devaluation of the exchange rate in order to meet the inflation target, in a context of flexible exchange rates and free capital mobility. It is important in this context to analyze the institutionality of the Brazilian exchange rate policy and the absence of capital controls in the country.

3.2. EXCHANGE RATE POLICY AND CAPITAL MOBILITY

One of the main core elements of the definition of a sovereign currency according to MMT is the exchange rate regime, in particular, the absence of a promise to convert the currency issued by a given government into another currency that it does not issue - usually the dollar. As analyzed in Chapter 1, the discussion gains new contours from the perspective of peripheral countries, in which it is highlighted that a capital control policy provides more policy space for countries on the periphery of the international monetary system, as it can make it feasible to obtain foreign currency to honor obligations and pay for essential imports, easing the external constraint (VENRNEGO; CALDENTEY, 2019).

Brazil began its process of trade and financial openness and exchange rate liberalization in the 1990s (PRATES; PAULA, 2017). This period, however, was troubled. The exchange rate anchor adopted after the Real Plan was essential for stabilizing Brazilian inflation, but in early 1999, the country was hit by a strong currency crisis, which led the central bank to adopt a floating exchange rate regime. The process of financial opening was already underway, so the consolidation of the tripod inflation targets, floating exchange rate and fiscal targets should also be appreciated from the complete elimination of capital controls (MARTINS, 2017).

3.2.1 Institutionality of the foreign exchange market

Briefly, the 1990s were marked by trade and financial opening processes and exchange deregulation, so that the Brazilian foreign exchange market began to have greater freedom in relation to transactions between residents and non-residents[45] (PRATES, 2015). Several regulatory changes occurred in order to make more flexible and facilitate the entry and performance of non-resident investors[46] in the financial and capital markets (ANBIMA, 2014).

At that time, capital controls were basically endogenous, i.e., the government reacted to periods of capital flows expansion with greater control of these, and to periods of capital flight with rela-

45 This corresponds to a large degree of external convertibility of the Brazilian currency, as there are no limits on currency flows between residents and non-residents. On the other hand, internal currency convertibility, which would correspond to allowing foreign currency transactions within the national territory, has not been realized in Brazil (PRATES, 2015; ROSSI, 2014b). For more details on financial openness, see Akyuz (1993).

46 "Resolution No. 4,373/14 defines non-resident investor, individual or collective, as individuals or legal entities, funds or other collective investment entities, with residence, headquarters or domicile abroad."

xation (GOLDFAJN; MINELLA, 2007; PAULA et al., 2004; PRATES; PAULA, 2017). In other words: "resource flows ended up determining the level of capital controls, rather than being determined by the level of said controls" (PAULA et al., 2004, p. 107). In the 2000s, financial liberalization was part of the new economic policy model based on the NMC (PRATES; PAULA, 2017).

The determination of the exchange rate depends basically on the exchange rate regime adopted in the country and the institutionality of the foreign exchange market[47]. The exchange rate regime is an important economic policy strategy for the peripheral countries in the context of financial globalization (PRATES, 2010). As we have seen, Brazil officially instituted the flexible exchange rate regime in January 1999. In practice, however, a dirty floating regime was applied[48], which gave the monetary authority a greater degree of freedom in conducting exchange rate policy compared to fixed or fully floating exchange rate regimes (PRATES, 2015; PRATES, 2010).

The two main regulations of the Brazilian exchange market are Resolution 2,689[49] and the Foreign Exchange and International Capital Market Regulations (RMCCI)[50].

The first was implemented on January 13, 2000, allowing non-residents broad access to the same applications available to residents[51] in regulated markets, i.e., it authorized unrestricted access of non-residents to all segments of the domestic financial market (GOLDFAJN; MINELLA, 2007; PRATES, 2015; PRATES; PAULA, 2017). In this sense, the most relevant change was the elimination of restrictions on operations with foreign exchange derivatives[52] by non-residents, that is, they were allowed to have positions (without limits) in the Brazilian exchange derivatives market (PRATES, 2015; PRATES, 2010; ROSSI, 2014a).

The RMCCI, on the other hand, counts on permanent regulations, which determine the institutionality of the exchange market, and on temporary regulations, which aim to impact the flow of foreign exchange into the country. These include capital control measures, "quantitative and qualita-

47 The foreign exchange market can be divided into a spot market and a derivatives market. The first one has two segments: the primary market and the secondary, or interbank, market. In the primary market, transactions that involve the effective entry and/or exit of foreign currency from the national territory take place. In the secondary market (or interbank), occur the operations between banks authorized by the BCB to operate in the exchange market, not having effective flows of currency between the country and the exterior. In the derivatives market, the future dollar market stands out (PRATES, 2015; ROSSI, 2014a; VENTURA; GARCIA, 2012).

48 According to Calvo and Reinhart (2000), the peripheral countries would be "afraid to float" due to some structural characteristics, such as the greater exchange rate pass-through and volatility of capital flows, the smaller size of the foreign exchange and financial markets compared to such flows, the currency mismatch, and the foreign sector's lower capacity to adjust to exchange rate variations because of a less diversified export portfolio (PRATES, 2010).

49 In fact, Resolution 2,689/00 was revoked by Resolution 4,373/14 (ANBIMA, 2014).

50 It was implemented by BCB Circular 3280, of March 9, 2005.

51 In this context of Resolution No. 2,689, the opening of the national financial market to the entry of foreign investors was fully completed (PRATES, 2015).

52 "Foreign exchange (or exchange) derivatives can be defined as foreign currency purchase and sale contracts signed in the present for future (or deferred) settlement at an agreed price (also in the present) between the agents, which depends on the spot exchange rate" (PRATES, 2015, p. 80).

tive controls on the inflow and stimulus to the outflow of capital by non-residents and residents", and prudential financial regulation, "measures that impact the active and passive operations of banking institutions in foreign currency" (PRATES, 2015, p. 71).

In short, the volatility and trends of the Brazilian exchange rate, derived from the institutional characteristics of the exchange market[53], are subject to the formation of expectations by speculative agents that operate in the futures market. In this context, it can be observed that the floating exchange rate regime, added to the particular institutionality of the Brazilian market, causes significant exchange rate volatility, which may bring difficulties from the point of view of obtaining foreign exchange and of Brazilian political autonomy - even though, as described in Chapter 2, the evidence seems to indicate a reduction of this problem.

3.2.2 Management of exchange rate policy and capital flows from 1999 onwards

In the Brazilian economic policy framework, "despite precedence in time, the floating exchange rate regime, assigned to the Bacen, has a clearly inferior institutional status to the inflation targeting regime [...]" (PRATES, 2010, p. 10). The actions of the monetary authority aim to reduce short-term exchange rate volatility, but there are no documents that show what would be the macroeconomic objectives behind the operations performed - which could, for example, aim to control inflation, maintain financial stability or Brazilian external competitiveness (PRATES, 2010).

What can be understood from Copom minutes and BCB Inflation Reports is that, considering the impact of the exchange rate on inflation, the additional and implicit objective of exchange rate policy has to do with inflation control and not with easing the external constraint (PRATES, 2010).

This hierarchy in the Brazilian institutional arrangement responds to the idea that, in line with other emerging countries, Brazil's exchange rate pass-through is greater, as is its vulnerability to capital flows. This highlights the importance of exchange rate management for the smooth functioning of the IMR.

In this sense, one can consider, contrary to the MMTist view of the exogenous interest rate, that the interest rate would be partially endogenous in these countries, being subordinated to inflation control via exchange rate appreciation.

The specificity of the Brazilian case is that the BCB is responsible for conducting both policies (monetary and exchange rate), which avoids coordination problems[54], but still the objectives of exchange rate policy are not made explicit (PRATES, 2015; PRATES, 2010).

53 For more details, see Prates (2010), Prates (2015), Prates and Paula (2017), Rossi (2014a, 2014b), Ventura and Garcia (2012).

54 "For example, some countries that adopt that binomial [floating exchange rate-inflation targeting] explicitly recognize that stabilizing inflation requires managing the exchange rate due to the presence of high degrees of trade openness and exchange rate pass-through" (PRATES, 2015, p. 98; PRATES, 2010, p. 12).

However, the effectiveness of the exchange rate policy in meeting these objectives depends on certain internal and external constraints on the management of the floating exchange rate regime. The main structural internal constraint is the degree of financial openness of the Brazilian economy, which determines the main external constraint, the phase of the international liquidity cycle, which has effects on the management of the floating exchange rate regime. Besides these, there are also internal macroeconomic conditioning factors: the balance of payments situation and the degree of exchange rate pass-through, important factors if we consider peripheral countries (PRATES, 2010).

The country faced an external restriction situation in the early 2000s, which restricted the BCB's room for maneuver[55]. In this period, it seems to have been the exchange rate movements that determined the behavior of the basic interest rate, considering the negative effects of a pass-through of an exchange rate devaluation to inflation (PRATES, 2015). Although the reserves were used, the depreciation was not contained, putting price stability at risk (PRATES, 2015; PAULA et al., 2004).

Exchange rate instability reflected "the difficulties of managing the balance of payments of a country with high external vulnerability to changes in the mood of market investors" (PAULA et al., 2004, p. 89), in a context of absence of capital controls[56].

The adoption of capital controls is based on the idea that the free mobility of short-term capital generates three problems, especially for emerging countries: greater external vulnerability, loss of monetary policy autonomy and a tendency to exchange rate appreciation, which can generate imbalances in the current transactions balance (PAULA et al. , 2004, p. 72). Therefore, these tools are important to mitigate these effects and thereby increase the degrees of freedom of domestic economic policy.

Starting in 2004, external economic conditions became more favorable and the BCB began to adopt a policy of accumulating international reserves, which was possible thanks to the liquidity in international financial markets and the good performance of the Brazilian trade balance, as described in Chapter 2. On the one hand, external vulnerability and country risk were reduced, which also contributed to the objectives of the IMR[57]. On the other hand, this policy was responsible for reinforcing the trend of appreciation of the real, which, to some extent, harmed the external competitiveness of Brazilian industry (PRATES, 2010).

55 This occurred due to three factors: (a) the 1999 agreement with the IMF, which prohibited the BCB from intervening in the futures market; (b) the small volume of international reserves; and (c) the large volume of domestic debt indexed to the exchange rate (PRATES, 2015).

56 "Capital controls directly involve the constraint of one or more categories related mainly to the capital account of the balance of payments: foreign direct investment, portfolio investment, borrowing or lending by residents and non-residents, transactions effected through deposit accounts, and other miscellaneous transactions (e.g., unilateral transfers)" (PAULA et al., 2004, p.77).

57 It is important to note that the BCB sought to accumulate reserves and reduce exchange rate volatility, but without influencing the trend appreciation of the exchange rate, which was essential to ensure compliance with inflation targets. Thus, the monetary authority's strategy was to buy foreign exchange to accumulate reserves without interrupting the trajectory of appreciation of the real, and that is what happened (PRATES, 2015).

In mid-2008, the worsening of the international financial crisis raised the risk aversion of international investors, resulting in a "flight to safety" movement. Despite the interventions of the monetary authority, the sharp depreciation of the real was not contained (PRATES, 2015).

However, already at the end of the first quarter of 2009, capital flows returned to emerging countries as a result of lower risk aversion, the expansion of liquidity created by quantitative easing policies, the historically low interest rates in central economies, and the better performance of emerging economies compared to the slow recovery of advanced countries (PRATES, 2015; PRATES; PAULA, 2017).

Faced with pressures for exchange rate appreciation, it makes sense that the Brazilian authorities have adopted measures to regulate the capital account, which include capital controls and financial prudential regulation, and to regulate foreign exchange derivatives (PRATES; PAULA, 2017).

Until the adoption of tighter regulation on capital flows and foreign exchange derivatives, the relevant issue perceived by Prates (2010, p. 13) was that:

> *The high degree of financial openness and, above all, the access of global investors to the organized market of financial derivatives intensified the impacts of phases of abundant or scarce capital flows on the country's key prices and, especially, on the exchange rate, which became the main transmission belt of the volatility of capital flows on the financial markets and the real economy; but it also reinforced the interaction between exchange rate, monetary and fiscal policies - inherent to the economies that were inserted in the financial globalization - and reduced their respective radius of maneuver. In this context, the management of the floating exchange rate regime - and of the inflation targeting policy - became subordinated, to a large extent, to the wealth allocation decisions of global investors.*

As in the 1990s, capital account regulation was also mainly endogenous in the post-2008 crisis period. In 2009 and 2010, some mild measures of capital controls were adopted, but only in 2011 was broader regulation adopted, including measures of prudential financial regulation and on FX derivatives. Only when the government simultaneously adopted these measures to regulate the capital account and, above all, foreign exchange derivatives, increasing its policy space, were the pressures of currency appreciation by large capital flows and carry trade contained.

However, these stricter measures on capital flows were quantitative instruments, so that they did not structurally change the degree of Brazilian financial openness. For this, it would have been necessary to adopt qualitative measures (PRATES, 2015). Moreover, in addition to inflation control, external competitiveness became an (additional) objective of macroeconomic policy in this phase, so the level of the exchange rate became one of the goals of exchange rate policy under the Dilma government.

With the reversal of the international liquidity cycle soon after, materialized in the increase of risk aversion in the international market in the context of the worsening of the euro crisis, and some

changes in the conduction of domestic macroeconomic policies, namely the drop in the Selic rate, capital controls measures began to be eliminated - formally, since December 2012 (CHAMON; GARCIA, 2014; PRATES, 2015; PRATES; PAULA, 2017).

In addition, in mid-2013, a reversal in flows occurred toward the US, when the Federal Reserve indicated that it might begin to reduce quantitative easing policies, putting upward pressure on the exchange rates of many countries, especially emerging markets. Brazil was one of the most affected and, to mitigate the devaluation, in June and July the government had already removed almost all regulations on the capital account and foreign exchange derivatives.

From this history, it is possible to conclude that the operationality of exchange rate policy in the country even has instruments for the introduction of capital controls and greater regulation of the exchange rate in order to increase the country's room for maneuver in economic policy. Recent experience, however, does not place these instruments as part of an apparatus that supports economic growth and the achievement of full employment, but rather the control of inflation.

3.3. FISCAL POLICY

Given the centrality of fiscal policy to MMT recommendations, it is important to analyze Brazil's fiscal institutionality. From this perspective, one must keep in mind that monetary policy, which is at the core of the Brazilian economic policy framework, impacts the fiscal situation considerably, since changes in the interest rate, the main instrument of Brazilian monetary policy under the IMR, directly affect the dynamics of public indebtedness.

3.3.1 BCB-National Treasury Relationship

The starting point is the institutional mediations that influence the Brazilian government's spending, indebtedness, and tax collection operations, with particular emphasis on the relationship between the BCB and the National Treasury. The authority acts as a financial agent for the Treasury, which has the Treasury Single Account, but cannot grant loans to the entity[58,59]. As Pimentel and Martins (2020, p. 3) note:

> *The Single Treasury Account registers the movement of financial resources of the public sector. It represents, at a given point in time, the stock of all revenues obtained and not spent by the Federal Government. Thus, it gathers the revenue from tax collection, the profits earned by state-owned companies that are due to the government, the revenue from the sale of government assets, and the revenue obtained from the sale*

58 The balance of this account is not part of any monetary aggregate (REZENDE, 2009).

59 The Treasury, on the other hand, has no authority to issue currency, as established in the Federal Constitution of 1988: "Art. 164. The Federal Government's authority to issue currency will be exercised exclusively by the Central Bank. § 1 The Central Bank is forbidden to grant, directly or indirectly, loans to the National Treasury and to any organ or entity that is not a financial institution".

> *of government bonds in the primary market, among others. A primary issue of currency by the BCB in favor of the Treasury would also be accounted for in the Single Account, but this practice is operationally prohibited in the Brazilian case.*

When the government wants to make a payment, the BCB debits the corresponding amount from the Single Account and credits it to the bank reserve account of the commercial bank that is to receive the payment on behalf of the final beneficiary (thus increasing the volume of demand deposits). On the other hand, when the public pays taxes or buys public bonds, the opposite occurs: the commercial banks reduce the bank deposits of the clients who are making the payment, while the BCB debits the amount from the bank reserve account of the commercial banks and credits it to the Single Account. All these accounts (except those of the public with commercial banks) are liabilities of the BCB, so these operations only reallocate resources within its liabilities[60] (BASTOS et al., 2020; PIMENTEL; MARTINS, 2020; REZENDE, 2009).

However, by debiting the commercial banks' reserve account and crediting the Single Account, the BCB is actually destroying previously issued bank reserves (monetary base). In other words, the payment of taxes, for example, represents destruction of state money, as we saw in Chapter 1, and does not finance public spending. Therefore, ceteris paribus, tax payments reduce bank reserves and government spending increases them.

According to MMT, taxes and public debt do not finance Brazilian government spending (Rezende, 2009). What the BCB does is to use open market operations to prevent pressures on the Selic rate from deviating it from its target and compromising the IMR systematics. In this sense, and in line with Lerner, the sale of government bonds is part of monetary policy:

> *In fact, it is a "monetary policy" operation rather than a "financing" operation. In the absence of daily open market operations, the overnight interest rate would fall to zero. By contrast, the conventional view suggests that when the government is running budget deficits, it is borrowing from the nongovernmental sector, thereby pushing up the overnight nominal interest rate. It should be clear that the Brazilian government is not financially constrained operationally-neither revenue constrained nor reserve constrained. (REZENDE, 2009, p. 90).*

From this perspective, it would not make sense to discuss sustainability and fiscal responsibility in the terms of the New Macroeconomic Consensus. The Brazilian government, as the issuer of a sovereign currency (not convertible into dollars), is incapable of becoming insolvent in reais[61]: "Note

60 Remember that the bank reserve accounts are central to the operation of monetary policy, since the BCB has to manage liquidity in the banking system to keep the Selic at its target.

61 An eventual "default" or moratorium on the public debt in national currency would only be possible by an arbitrary act, as, for example, the one practiced in the context of the Collor Plan - see Marques and Werlang (1989) and Belluzzo and

that with the introduction of the Brazilian Fiscal Responsibility Law, there are 'borrowing' limits and other constraints, but these are all self-imposed" (REZENDE, 2009, p. 94-95).

3.3.2 Changes in the tax regime and in the conduct of fiscal policy

With the strong adversities that marked the 1980s, known as the "lost decade", the rise of the monetarist theory initiated a process of imposing limits to the State's actions and subjugation of fiscal policy to the dictates of sound finance, with the objective of controlling monetary expansion and, thus, inflation. Fiscal policy lost its active role and inflation became increasingly associated with public deficits. As Lopreato (2013, p. 153) points out:

> *The effort to restrain the actions of the State and the election of cutting the public deficit as the goal-synthesis of economic policy caused fiscal policy to lose its status as a powerful instrument to accelerate growth and public spending to become the villain of the crisis.*

Fiscal adjustment was seen as essential to successful price stabilization and was included in the strategy of the Real Plan. The construction of this new institutional model, aligned to the neoliberal agenda, redesigned the pattern of state intervention in the economy. The need for permanent reforms that would change the fiscal regime in a lasting way was advocated in order to sustain low inflation.

The agreement with the IMF in 1998 was responsible for increasing "fiscal austerity in the face of the obligation to restore confidence in the solvency of public debt" (LOPREATO, 2013, p. 184). Thus, the adoption and tightening of fiscal rules was aimed at preventing fiscal problems from affecting macroeconomic stability.

In the context of financial liberalization and globalization and increased speculative capital movements, the Brazilian government became very concerned about the solvency of public accounts as a way to pass "confidence" to investors and not negatively influence their expectations: "The action of fiscal policy turned, fundamentally, to the role of anchor of agents' expectations and guardian of the credibility of macroeconomic policy" (LOPREATO, 2013, p. 160).

Moreover, the characteristic of the post-stabilization fiscal regime became budget rigidity. It became more difficult to meet all budget demands, considering the correlation of social and political forces, in a context of spending limits, obligation to generate primary surpluses, and low economic growth.

In 2000, the Fiscal Responsibility Law (LRF) determined that the Budget Guidelines Law (LDO), through the "fiscal targets annex"[62], would be responsible for determining the primary surplus

Almeida (1990).

62 "The Annex of Fiscal Goals establishes the annual targets for revenues, expenses, nominal and primary results, and the amount of public debt for the year to which they refer and for the following two years" (RODRIGUES; COUTO, 2020, p. 22).

target, which would be the main anchor of the government's fiscal policy (LOPREATO, 2013; RODRIGUES; COUTO, 2020).

In this sense, the LDO, which functioned as a link between the medium-term planning instruments, the Multi-Year Plan (PPA), and short-term, the Annual Budget Law (LOA), gained prominence in the budgeting process to the detriment of the PPA. That is, the medium-term planning was left aside and the short-term became the reference for allocative decisions (RODRIGUES; COUTO, 2020).

The idea of the fiscal regime of primary surplus targets was that they would become the main anchor for stabilizing the debt/GDP ratio. This ex-ante fiscal constraint came to condition the entire federal budget process after its adoption. Despite these rigid measures, the "new fiscal regime" was not able to promote a fiscal situation considered "healthy and safe" due to the macroeconomic instability of the first years of the 21st century and the high interest rates. What occurred, in fact, was that:

> *The restructuring of the fiscal regime left as a legacy the determination of public management to be committed to fiscal results and the solvency of public debt. However, the agenda, in the terms in which it was set, proved to be insufficient to create, by itself, the favorable environment for the generation of waves of infrastructure investments and to sustain growth. The almost exclusive focus on fiscal adjustment and the effort to improve market conditions left aside the fiscal and financial mechanisms capable of providing the state with the capacity to invest and articulate the action of private agents in investment projects and growth strategies. (LOPREATO, 2013, p. 199-200).*

It is interesting to note that, in the face of the crisis of confidence tied to his inauguration, Lula chose, at first, to follow the previous policy line, worrying about debt sustainability and fiscal adjustment. However, in 2006, Minister Palocci was substituted, and the orientation of fiscal policy changed significantly. It becomes more active and guided by developmental, post-Keynesian, and structuralist precepts, also giving impulse to social policies, but without forgetting the commitment to reduce the debt/GDP ratio.

The government's new official posture, characterized by greater state intervention, came from the recognition that the market alone could not sustain investments and guarantee economic growth. However, the bases of the macroeconomic regime were not changed. Lula's specificity was that "in addition to expanding social policy, he gave greater space to the state's presence and recreated mechanisms to support private capital and defend growth" (LOPREATO, 2013, p. 204).

Thus, a more active fiscal policy and state action was not at all incompatible with the prevailing macroeconomic regime based on the NMC. However, the possibility of using this policy depended significantly on the economic conjuncture. For example, the international financial crisis allowed a greater tolerance to state intervention actions without compromising the "confidence" of agents, but as soon as it was overcome, the clamor for a more austere policy was reestablished. In practice, the main-

tenance of institutionality did not give the necessary room for maneuver to fiscal policy managers to adopt more progressive policies, besides weighing significantly in favor of tax incentives compared to increased spending.

3.3.3 LRF and Brazilian fiscal rules: Golden Rule, Primary Result Target and Expenditure Ceiling

The argument of those who defend the use of fiscal rules in fiscal policy management is based on the idea that they "allow disciplining public spending and generate a state of confidence with domestic and international investors, which would contribute to economic growth led by private initiative" (GIMENE; MONEDESI, 2021, p. 2). On the other hand, there are those who advocate the relaxation and/or repeal of these (self-imposed) fiscal restrictions, as a way to equip the state with the capacity to face adversities, mitigating macroeconomic fluctuations, and to provide quality public services, such as authors linked to MMT.

For those who hold this view, the tax rules would have undesirable impacts on economic growth, the level of employment, and tax collection.

According to Lledó et al. (2017, p. 8), "a fiscal rule is a long-lasting constraint on fiscal policy through numerical limits on budgetary aggregates," usually with the aim of promoting fiscal responsibility and the health of public accounts, as well as anchoring agents' long-term expectations of fiscal policy and government accounts (BROCHADO et al. , 2019).

Currently, the debate about the Brazilian fiscal rules is still open, mainly due to the problems associated with them. The vision of the current economic team is fiscal-oriented and concerned with the "health" of public finances[63]. Thus, the debate ends up going in the direction of deepening the current rules:

> *These rules were created at different times, reflecting the needs of fiscal policy at that time. The current Brazilian framework, therefore, is composed of rules whose objectives are not necessarily interconnected, and which in specific scenarios may be conflicting or inefficient. Thus, full respect for the principle of consistency and efficiency is not observed, one of the reasons why the existing fiscal rules, under the current design, may not be sufficient to ensure sustainable public debt trajectory in the medium and long term. (BROCHADO et al. , 2019, p. 11).*

Among the most influential rules in the Brazilian framework are: the Golden Rule, the Primary Result Target, and the Expenditure Ceiling.

63 It is important to highlight that this framework of sound finances and its assumptions, present in the elaboration of Brazilian fiscal rules, are not consensual among economists (VILELLA; VAZ, 2021).

The Golden Rule prohibits "the realization of credit operations that exceed the amount of capital expenditures, except those authorized through supplementary or special credits with a precise purpose, approved by the Legislature by absolute majority" (BRASIL, 1988, Article 167, item III). In practice, this means that the government cannot go into debt in order to finance current expenses[64]. The idea behind this rule is that a generation could only go into debt to finance investments that will also benefit future generations, since the payment of the debt issued would fall on them (GIMENE; MODENESI, 2021)[65].

The Primary Result Target for the Federal Government, as seen above, is contained in the LRF, which states that "the draft budget guidelines bill will include an Annex of Fiscal Goals, which will establish annual targets, in current and constant values, for revenues, expenses, nominal and primary results, and the amount of public debt, for the year to which they refer and for the following two years"[66].

The objective of this primary result rule is to reduce primary deficits as a means to promote public debt sustainability. In addition to disregarding the other factors involved in the dynamics of public debt, the rule shifts the focus of fiscal policy, which, in the view of authors linked to MMT, should be to guarantee the social rights provided for in the Constitution, to the result of an economic variable (VILELLA; VAZ, 2021).

In addition, a serious problem with this rule is its pro-cyclical nature: it allows public spending to increase in times of economic growth, since revenues also rise, but forces the government to reduce spending in bad times because of falling revenues, although public spending is an extremely relevant tool in times of recession. Therefore, it is completely incompatible with a fiscal regime guided by functional finance (VILELLA; VAZ, 2021).

The Expenditure Cap was responsible for instituting a New Fiscal Regime[67]. This rule "sets a limit for the amount of primary expenses, which is equivalent to the previous year's limit adjusted for inflation" (BRASIL, 2018). In other words, it is forbidden to increase the Union's primary spending in

64 Understood as "salaries of public servants, social security and welfare benefits, operation and maintenance of public administration etc." (BRASIL, 2018).

65 However, due to the broad scope of the concept of "capital expenditures", which allows for the inclusion of public debt amortizations, for example, it makes it possible to comply with the rule even in a scenario of increased debt and reduced investment. Moreover, there are current expenses that also impact and are relevant for future generations, for example, those related to the areas of health and education, but the need for compliance with the rule ignores this fact, being contradictory to the initial idea behind the establishment of the rule (BROCHADO et al. , 2019; GIMENE; MODENESI, 2021; VILELLA; VAZ, 2021). Moreover: "the rule disregards that an expenditure on public investments subsequently generates current expenses for its maintenance, which occurs in the case of the construction of public hospitals and public schools, for example. This brings to the forefront of the debate the importance of current expenses so that investment spending has the expected effect" (VILELLA; VAZ, 2021, p.9).

66 Art. 4, § 1 of Complementary Law no. 101, of May 4, 2000.

67 Constitutional Amendment No. 95 of 2016.

real terms for the next twenty years[68], regardless of the level of revenue collected by the government. In case of non-compliance, some triggers are triggered, such as prohibition of hiring personnel, creating mandatory expenses, holding contests, among others (BROCHADO et al. , 2019; VILELLA; VAZ, 2021).

The spending cap can be associated with several problems. For example, since population growth is positive, the spending cap results in a real reduction in per capita primary spending (GIMENE and MODENESI, 2021). Moreover, as the rule covers most primary expenditures and the level of mandatory expenditures is very high, there is a tendency to reduce discretionary spending, including investments associated with the provision of public goods and services to the population (VILELLA; VAZ, 2021).

All these restrictions adopted in Brazil, according to MMT, are self-imposed, since the Brazilian government issues sovereign currency. To these rules is associated the nickname "fiscal responsibility", relegating to the background the guarantee of social rights provided in the 1988 Federal Constitution to the Brazilian people. In this sense, for the Brazilian economic policy framework to align with the policy prescriptions of the MMT, it would be necessary to thoroughly review this set of rules, as well as the broader institutionality of the macroeconomic regime adopted in the country.

3.4. SYNTHESIS

For the theoretical framework of MMT, the concern of policymakers and the conduct of economic policy, especially fiscal policy, should be focused on promoting macroeconomic conditions that sustain full employment and stimulate the level of activity without, however, compromising price stability. It was discussed in Chapter 2 that Brazil can be considered a sovereign currency issuing country, even though it is not completely free of external constraints.

This chapter analyzed the institutional framework of Brazilian economic policy, focusing on monetary, exchange rate, and fiscal policies. It was shown that the orientation of this framework in favor of macroeconomic and price stability ends up subjugating other objectives, such as economic growth and full employment. Even if the Brazilian experience reveals that it is possible to operate within the current institutional limits, if the conjunctural conditions that allow the authorities to do so exist, the structural framework of this framework still restricts significantly the possibilities of State action.

In particular, the fiscal rules in force in Brazil focus on the supposed balance of public accounts and, to achieve it, promote artificial and unnecessary restrictions on public spending. In theory, the important constraints for policy makers concern the availability of real resources and productive capacity (whose overcoming may trigger an inflationary process) and the balance of payments or external constraint.

68 The rule can be revised after ten years.

The economic policy framework, moreover, does not seem to demonstrate greater concern with social needs and demands, as established in the Federal Constitution of 1988. It ignores relevant issues in the MMTist vision, such as unemployment, access to health, education, food, housing, culture, leisure, among others. It even makes it often impossible to meet social deficits, which are genuinely worrisome. In other words, the current framework ties up the State's spending capacity and compromises the adoption of policies that promote the country's long-term economic development, which is incompatible with the democratic demands that are fundamental to Brazilian society.

CONCLUSION

The objective of this paper was to analyze the macroeconomic and institutional characteristics of Brazil that would allow us to infer whether the Brazilian economy has a sovereign currency, what is its degree of economic policy autonomy, and what aspects could hinder the application of MMTist policy prescriptions.

It was explained in Chapter 1 that a sovereign-currency state is one that basically issues the very currency in which it levies taxes and incurs expenditures, indebts itself only in it, and does not promise its conversion. In other words, the state needs to possess four characteristics: (a) to define the unit of account that will denominate prices and contracts; (b) to impose collective obligations denominated in this unit of account; (c) to issue a currency that represents this defined unit of account and to accept only this unit of account as payment for the collective obligations; and finally, (d) not to promise to convert its currency into something it does not issue and not to get into debt in another currency. This last point makes it clear that the ideal exchange rate regime in the view of the MMTist authors is the flexible one, since the country would not be dependent on its ability to obtain foreign currency to meet a fixed conversion rate, which would provide a greater degree of monetary sovereignty.

In this view, a sovereign state has no financial constraint, that is, it cannot "break" on its own currency, and the central objective of economic policy, especially fiscal policy, is to promote full employment without, however, compromising price stability. However, peripheral countries face more complicated problems. For example, most of them have some external constraint, so they need to obtain some amount of foreign currency. Thus, austerity measures are often not merely self-imposed. Also, peripheral currencies are not internationally liquid, which reduces the policy space of peripheral countries vis-à-vis central countries.

In Chapter 2, we conducted an empirical evaluation of the Brazilian foreign debt, which showed that the country has been successful in reducing its exposure to foreign currency debt in recent years, both through the reduction of gross and net foreign debts and through the deindexation of the public debt to the exchange rate. Despite the structural question related to the external restriction, which is relevant for the peripheral countries, this movement has conferred a greater degree of freedom to Brazilian policy makers.

Furthermore, an empirical evaluation associated with the Brazilian government's internal indebtedness was also carried out, based on the work of Jorge (2020). This evaluation revealed that the government does not face any restrictions to borrowing in local currency, i.e., over the last few years, the National Treasury has not shown any problems in placing securities on the market, although the profile of Brazilian debt is short term and at post-fixed rates.

From an empirical point of view, therefore, it was possible to conclude that Brazilian domestic policy has a relative degree of autonomy, despite the fact that the real is not at the top of the international monetary hierarchy.

Finally, Chapter 3 discusses the institutional aspects of Brazilian economic policy. It was possible to observe that, since the adoption of the "macroeconomic tripod", Brazilian policies have been quite rigid, which makes it difficult for the State to play a greater role in promoting full employment and growth. The rigidity of monetary policy is evidenced under the inflation targeting regime; the exchange rate policy, through a strategy of capital control and exchange rate regulation, could be used to increase the room for maneuver of domestic policies, but is used to control inflation; and fiscal policy, through so many fiscal rules (artificial and self-imposed, in the MMTist view), is subordinated to a view concerned with the government's budget result, and not with guaranteeing the rights and demands of society.

In this sense, it is clear that the institutional framework of economic policy is oriented towards macroeconomic and price stability, and ends up imposing restrictions on the state's actions, compromising other more relevant objectives according to MMT, namely, the search for full employment and economic growth.

Thus, we conclude that the hypothesis of this paper, that the MMT is applicable to the Brazilian case, is confirmed, but for this to be possible, relevant institutional changes need to be made. It is possible to align Brazilian economic policy with the MMT prescriptions, but to do so it is necessary to review the main objectives to be pursued and the institutionality of the country's entire macroeconomic regime, especially the current set of fiscal rules, which restrict the State's spending capacity and, therefore, compromise the adoption of policies aimed at meeting social needs and at long-term economic development.

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