Macro Vision

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Fiscal dominance in Brazil: Where do we stand?

- Fiscal dominance refers to a situation where the deterioration of public finances limits or undermines the central bank's actions to control inflation and may even have the opposite effect to what is intended. In practice, this situation is not binary, but rather continuous with intermediate regimes of interaction between monetary and fiscal authorities.
- The following two conditions bring a country closer to fiscal dominance: (1) a central bank that is hesitant in the fight against inflation and (2) a government that does not set credible limits on the trajectory of public debt. The latter may be sufficient to prevent inflation stabilization, even in the absence of the first condition.
- While domestic inflation is running above target and inflation expectations are becoming even more unanchored, the actions of the Brazilian Central Bank (BCB) remain consistent with conventional monetary rules, and in our view, the institution has not shown any hesitation in its actions to get inflation to its target.
- ► However, the credibility of the fiscal framework even if strictly adhered to for generating sustainable fiscal trajectories in the medium term has deteriorated significantly. The deterioration is due to the perception that the rule does not offer the prospect of stabilizing public debt unless there is a significant increase in revenues. Moreover, the risk of non-compliance has increased, even with the recent adoption of measures that are in the right direction.
- As the Brazilian Central Bank's Monetary Policy Committee (Copom) has noted in recent communications, market variables are under some stress, with a significant increase in risk premium. Although there are no signs that interest rate hikes are contributing to FX depreciation or the steepening of the yield curve, breakeven inflation measures have gone up, and capital outflows will be a key variable to monitor going forward.
- Thus, we believe that if the trends in fiscal variables remain unchanged, the Brazilian economy will move closer to fiscal dominance. While the BCB continues to act in accordance with inflation targeting, such behavior should be seen as necessary but not sufficient. Measures that improve the public debt outlook (such as the proposal described in Macro Vision: Time to strengthen the fiscal framework) will be essential, to reduce the danger of inflation getting out of control.
- Our conclusion is that the scenario has not deteriorated completely, but the mere fact that economic agents and independent analysts are discussing the dominance hypothesis suggests that Brazil is not in a fully normal situation.

1. Fiscal Dominance: Understanding the Concept

The concept of fiscal dominance describes a situation where the deterioration of public finances limits or undermines the central bank's actions to control inflation – and may even have the opposite effect to what is intended because fiscal policy exerts significant pressure on the economy. This pressure can have an impact through several channels, leading to FX depreciation, unanchored inflation expectations, and rising risk premiums, among other consequences.

1.1. Fiscal dominance as a coordination problem

The theme stems from the influential article "Some Unpleasant Monetarist Arithmetic" (1981), by Thomas Sargent and Neil Wallace. The article demonstrates that, when a country's debt trajectory is out of control, its central bank may be forced to monetize it, fueling inflation. This situation can materialize even if a restrictive monetary policy is initially implemented to contain inflation.

A key assumption for this outcome is that the upward debt trajectory does not depend on current or future monetary policy. Implicitly, it is assumed that there is a coordination problem between the monetary and fiscal authorities, in which the former is unable to "discipline" the latter. The "unpleasant monetarist arithmetic" arises from a coordination scheme in which fiscal policy "dominates" monetary policy and the monetary authority faces the constraints imposed by the demand for government bonds.

On the other hand, when the monetary authority is the "dominant player" and the fiscal authority is a "follower", the latter must adjust to rebalance the public budget. Ways to restrict monetary policy actions – such as the gold standard or fixed exchange rate and, more recently, the inflation targeting regime and the operational autonomy of the central bank – can be seen as attempts to prevent the fiscal authority from exercising leadership power over monetary policy. Therefore, periods when monetary frameworks are weakened are particularly susceptible to fiscal dominance. In other words, when society values monetary stability, it produces institutions, habits or rules that allow the central bank to act autonomously, thus limiting the risk of fiscal dominance.

Based on the work of Leeper (1991), updated for an inflation targeting regime, we built the table below, which shows different coordination schemes between the fiscal and monetary authorities:

		Monetary Policy			
		Active	Passive		
		(CB not lenient, follow Taylor rule)	(CB lenient, irresponsible)		
Fiscal Policy	Irresponsible (no effort to generate surplus)	Hyperinflation and debt explodes	Fiscal Dominance (inflation lowers real rate and prevent debt explosion; capital controls) Ex: Argentina		
	Responsible (sustainable debt)	Inflation Target Regime works Ex: Brasil most of the time	No anchor		

When monetary policy is active and fiscal policy is irresponsible, there is a total lack of coordination: interest rates rise to restrain inflation but there are no concurrent adjustments to the public budget. This scenario produces increasingly high interest rates and rising inflation. If neither of the authorities deviates from this "game of chicken", the result is a simultaneous explosion of inflation and debt (although the government remains solvent). In practice, it is not reasonable to imagine that this situation will persist indefinitely, and it is therefore necessary to analyze the possible deviations.

Let's suppose the government refuses to adjust the budget appropriately to contain debt growth and the monetary authority agrees to monetize, to some degree, the budgetary needs, deviating from its primary objective of inflation control around the target – that is, the central bank becomes lenient. This is precisely the situation of fiscal dominance, which arises when monetary policy is passive and fiscal policy is irresponsible, as in the "unpleasant arithmetic" of Sargent and Wallace (upper right quadrant).

When, on the other hand, monetary policy remains active and fiscal policy is responsible, we have the central bank committed to meeting its inflation target, while fiscal policy at some point changes, thus deviating from an explosive debt trajectory, through budget adjustments via spending cuts and/or tax increases. It is in this situation that we have the inflation targeting regime functioning at its full potential, with inflation at the desired levels and debt on a controlled trajectory (lower left quadrant).¹

One observation is necessary. Qualifying fiscal policy as "responsible" does not eliminate the possibility of counter-cyclical actions. It only requires that, whatever the short-term fiscal trajectory, the policy will ensure debt sustainability over time.

1.2. Fiscal Dominance and the Fiscal Theory at the Price Level

The so-called Fiscal Theory of the Price Level (FTPL) received a lot of attention after recent episodes of high inflation partly resulting from strong fiscal stimulus linked to the COVID-19 pandemic.

FTPL is based on the government's intertemporal budget constraint:2

$$\frac{D_t}{P_t} = E_t \sum_{i=0}^{\infty} \left[\frac{T_{t+i} - G_{t+i}}{(1+r)^i} \right]$$

where D_t is the nominal value of the public debt at the beginning of period t, P_t is the price level in t, T_{t+i} and G_{t+i} are taxes and primary government expenditures, respectively, both in real terms in period t+i, and r is the real discount rate (constant for simplicity).

The constraint shows that public debt must be financed by the present value of expected primary results, although the timing of when these surpluses will be generated is quite flexible. One consequence is that deficits not offset by surpluses can only occur if they are accompanied by price increases that reduce the real value of the debt:

$$\frac{D_t}{P_t} > E_t \sum_{i=0}^{\infty} \left[\frac{T_{t+i} - G_{t+i}}{(1+r)^i} \right] \longrightarrow \frac{D_t}{P_t \uparrow} = E_t \sum_{i=0}^{\infty} \left[\frac{T_{t+i} - G_{t+i}}{(1+r)^i} \right]$$

This results is an equilibrium in which, in the absence of credible fiscal adjustments, prices adjust to ensure that the government's budget constraint is respected. It is worth noting that to obtain this result, one typically assumes an accommodation of fiscal policy by monetary policy – that is, to some degree, a passive monetary policy and an irresponsible fiscal policy – as in Sargent and Wallace.

1.3. Fiscal dominance as a continuous spectrum phenomenon

The hypothesis of passive/active or responsible/irresponsible authorities focuses on extreme situations. In practice, intermediate regimes occur.

Fiscal policy generally seeks future surpluses, but it may not assume the full burden of fiscal adjustment. Monetary policy, while geared toward stabilizing inflation, may have to deal with the inflationary consequences of a public debt that is partially not financed by surpluses.³

¹ For completeness, the fourth and final case – of least interest, both theoretically and practically – is the one in which the monetary and fiscal authorities are passive and responsible, respectively. We then have an indeterminacy, in which several price trajectories may be consistent with equilibrium.

² See Cochrane (2005) on FTPL and Barro and Bianchi (2025) for an application of the theory to assess fiscal influences on inflation in OECD countries during the pandemic.

³ In this spirit, Smets and Wouters (2024) estimate a model for the American economy that allows "partial financing" of public accounts by inflation.

In a context of flexible exchange rates, closer to the current Brazilian reality, Olivier Blanchard, in the article "Fiscal dominance and inflation targeting: lessons from Brazil" (2004), studies the case in which an increase in the interest rate increases the probability of non-payment of the public debt (in the case of high levels of debt, for example), affecting the risk premium. This occurs continuously, generating a spectrum of fiscal dominance and not a binary framework.

As the risk premium rises, outflows of resources occur, leading to exchange rate depreciation. Depreciation, in turn, leads to higher inflation. Under these conditions, therefore, a higher interest rate can, in theory, be inflationary, but only when the fiscal situation is bad enough.

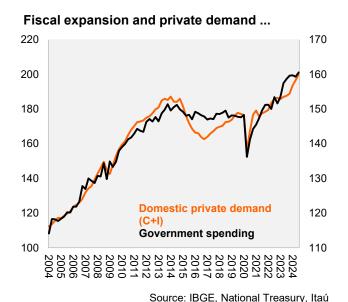
The figure below captures the quite realistic idea of fiscal dominance as a continuum:

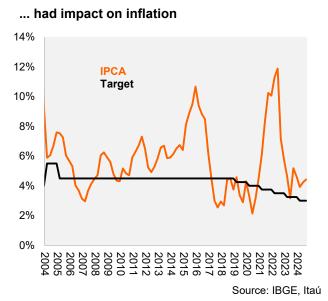


1.4. Fiscal dominance and the wealth effect of debt

Even if the Central Bank remains committed to fighting inflation, without deviating from this goal, fiscal policy may be inflationary to the point of preventing the stabilization of the price trajectory. This occurs when the increase in debt is perceived as an increase in wealth (thus not applying the so-called "Ricardian Equivalence") – a realistic hypothesis explored by, among others, Woodford (1996).

High inflation would be the result of "too much nominal wealth in search of few goods" and would have the role of eroding wealth in order to rebalance supply and demand.⁴ The mechanism aptly captures situations in which fiscal expansions are accompanied by an expansion of domestic private demand and rising inflation, as has occurred in Brazil recently:





Woodford shows that even with a combative central bank, fiscal expansion can lead to higher inflation. The result goes back to Sargent and Wallace's "nasty monetarist arithmetic," but with a crucial difference: it does not require the central bank to be "led" by the government's budgetary need to monetize debt.

⁴ See Loyo (1999).

In other words, even if the Central Bank does not deviate at any point from its commitment to stabilizing inflation, the fiscal situation may make a typically adequate monetary regime (e.g., an inflation targeting system and an autonomous central bank) insufficient to achieve this stabilization. In such situations, raising interest rates may even lead to higher inflation, as in the case described in Blanchard's article.

Woodford shows, however, that by setting credible limits on the trajectory of public debt, it is possible to prevent fiscal shocks from having undesirable effects on inflation and ensure that appropriate monetary policy rules can achieve inflation stability.

In short, when fiscal expansion is such that it increases domestic private demand and thus puts pressure on inflation, control of public accounts is necessary to ensure the possibility of inflationary stability, even in an inflation targeting regime with an autonomous central bank. And this control can be achieved through credible rules that limit the trajectory of public debt, such as the proposal described in Macro Vision: Time to strengthen the fiscal framework.

2. Assessing the risk of fiscal dominance in Brazil

Extrapolating from the above discussion, there are three main sets of information that are important to assessing the risk of fiscal dominance.

The first set, focused on the coordination problem, captures signs of passivity in monetary policy in relation to fiscal policy – that is, signs that the Central Bank may be acting to monetize the debt, to the detriment of its objective of stabilizing inflation.

The second set captures different angles of fiscal unsustainability risk: trajectories of fiscal variables such as public debt/GDP, public expenditure/GDP, primary deficit/GDP, and debt composition/duration.

The third set captures variables that reflect market dynamics, such as the correlation between interest rates and exchange rates, the risk premium, the slope of the yield curve, and breakeven inflation.

Below we analyze each of these sets of information with respect to the current situation in Brazil.

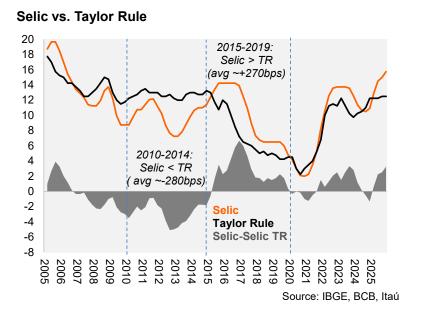
2.1. Evaluating the monetary regime

Although Brazil's inflation rate is above target and inflation expectations are increasingly unanchored, there are no signs of the Central Bank hesitating to act to control inflation. Copom and its members have even highlighted the risks that fiscal imbalances pose to the economy, particularly to inflation expectations, and the importance of coordinating fiscal and monetary policies.

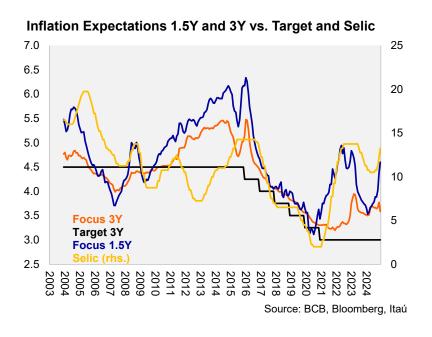
In addition to the Central Bank's communication, one way to assess whether it has been acting in a manner consistent with the data to achieve the inflation target is to look at a simple version of the so-called Taylor Rule.⁵ The first graph below shows that the Selic rate has recently been maintained at levels consistent with, if not higher than, those indicated by the rule. As a comparison, in the period from 2010 to 2014, when there was also an intense discussion about fiscal dominance in Brazil, the interest rate was systematically below the level indicated by the rule.

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⁵ Nominal interest rate = (neutral real interest rate + inflation target) + α .(inflation expectation-inflation target) - β .output gap



Furthermore, the policy rate has moved in response to the unanchoring of inflation expectations in relation to the target (see chart below). Once again, the current behavior of the monetary authority differs from that observed in 2011-2012, when the interest rate was cut despite the rise in inflation expectations at the time.



Therefore, from any perspective, the monetary authority remains active and committed to achieving the inflation target. Furthermore, the operational autonomy of the Central Bank has been preserved, both *de jure* and *de facto*.

2.2. Evaluating the fiscal regime

While there are no signs of passivity on the part of the monetary authority in the face of high inflation, recent developments in the fiscal variables mentioned above have been pointing to a greater risk of fiscal dominance. There has been rapid growth in Brazil's public debt, which was already starting from high levels compared with levels in peer countries, and there is no prospect of stabilization ahead. The median market expectation is that debt/GDP will reach 85% in 2026, down from 72% in 2022, with no prospect of convergence.

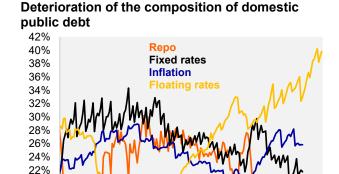
20%

18%

16% 14%

12%

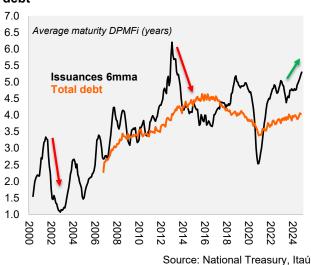
Furthermore, the composition of public debt may be a barometer of fiscal dominance risks. On the one hand, the significant increase in the share of floating-rate securities could foster a perception that the increase in interest rates needed to control inflation will make the trajectory of public debt mechanically even more challenging, in addition to accentuating the wealth effect mentioned above and reducing the effect of monetary policy. On the other hand, we have not seen in the recent period a shortening of the average maturity of public debt issuances – a phenomenon that marked previous crises, such as those of 2002 and 2014. In other words, despite the worse composition of the debt, we do not see a rejection of longer-term public bonds, demand for which would tend to be more affected by fiscal risk.



Source: National Treasury, BCB, Itaú

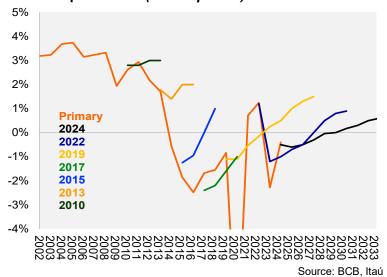
2021

No shortening of the average maturity of public debt



One important aspect of the character of a fiscal regime is its credibility regarding the generation of primary surpluses that guarantee the sustainability of the debt in the future. The chart below shows the primary result and the expected trajectory at each point in time according to the Focus survey. Between 2011 and 2015, the period in which there was the last intense debate on fiscal dominance, there was a significant deterioration in expectations concurrent with the worsening of current result. Subsequently, as a result of structural reforms such as the approvals of the spending cap and the pension reform in 2017 and 2019, respectively, we saw better-than-expected primary results and subsequent positive revisions of expectations. More recently, we have once again observed a worsening of expectations for the primary result in the future, which again signals the need for measures to reverse a challenging scenario.

Primary Result (% GDP) and Focus Expectations (end of period)



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Conceptually, the primary result sufficient to stabilize public debt close to the current levels of 80% of GDP is around 2.5% of GDP, depending on the real interest rate and potential GDP assumed (see table below). Until 2026, the distance between this primary result and the result implemented by simply complying with the rule in a conservative growth and real interest rate scenario is 3.2 pp of GDP. This result confirms that the fiscal rule is not capable of generating expectations of debt stabilization unless there is a significant increase in revenues.

Primary result that stabilizes debt in 80% of GDP									
GDP / real rates	4.0%	5.0%	6.0%	7.0%					
1.5%	2.0%	2.8%	3.6%	4.4%					
2.0%	1.6%	2.4%	3.2%	4.0%					
2.5%	1.2%	2.0%	2.8%	3.6%					
3.0%	0.8%	1.6%	2.4%	3.2%					

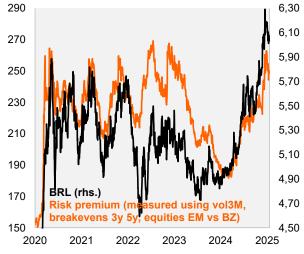
Tax increase needed (remainder adjustment) / increase in debt in 2026											
	D real spending 2.5% 2025-26 (Framework)				D real spending 6.5% 2025-26 (Avg real spending in 2023-24)						
GDP / real rates	4.0%	5.0%	6.0%	7.0%	4.0%	5.0%	6.0%	7.0%			
1.5%	3.0%	3.8%	4.6%	5.4%	4.2%	5.0%	5.8%	6.6%			
2.0%	2.4%	3.2%	4.0%	4.8%	3.6%	4.4%	5.2%	6.0%			
2.5%	1.8%	2.6%	3.4%	4.2%	2.9%	3.7%	4.5%	5.3%			
3.0%	1.2%	2.0%	2.8%	3.6%	2.3%	3.1%	3.9%	4.7%			

This trajectory increases the risk of fiscal policy being perceived as irresponsible, which reinforces the need for structural measures capable of generating an improvement in the trajectory of primary results going forward. Through these measures, it would be possible to strengthen the coordination between economic policies aimed at the full functioning of the inflation targeting regime and debt sustainability. In a recently published report (see Macro Vision: Time to strengthen the fiscal framework), we suggested as an alternative a reduction in the upper limit of annual real growth in primary expenditures from 2.5% to 1.5%, accompanied by underlying measures that give consistency and credibility to the announcement.

2.3. Assessing market dynamics

Disappointments with recent announcements of fiscal adjustments led to a sharp rise in the Brazilian risk premium, which was accompanied by a sharp exchange rate devaluation (graph below).

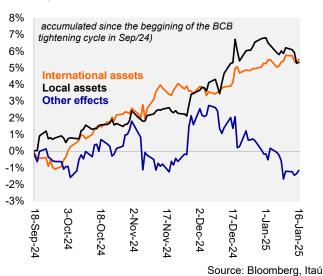




Source: Bloomberg, Itaú

The below breakdown of the Brazilian real's movement⁶ shows, however, that the exchange rate reacted positively to the rise in interest rates (and possibly to recent auctions in the foreign exchange market). But this boost was more than offset by the negative effects of the strong-dollar international scenario and the domestic risk premium, which affected all Brazilian assets.

Decomposition of BRL moviments



Furthermore, according to the data up to November, there were no signs of capital outflows in external accounts. In fact, recent flows, although negative, are much less intensely so than in comparable recent periods, especially the 2014-2015 period (chart below). In December, however, the financial flow data reported by the Central Bank did indicate significant outflows, although it is not possible to say that they are due to a structural outflow of Brazilian residents' capital.

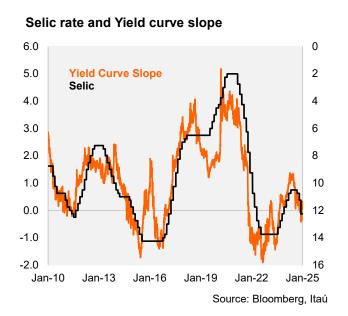
Brazilian investment abroad + Capital Flows

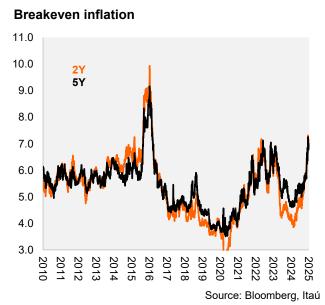


⁶ Decomposition is calculated based on how much the daily variation of the BRL is explained by the movement of other currencies (International Assets), by the movement of other Brazilian assets (Local Assets) and how much it is uncorrelated with other currencies and/or assets, that is, the model error (Other Effects) that includes factors that affect the dynamics of the BRL, but not the dynamics of other currencies or other Brazilian assets, such as the interest rate differential.

In the interest rate market, in turn, there are no signs of significant stress in the slope of the curve. On the other hand, breakeven inflation, although it is at much more moderate levels than in 2015-16, has risen sharply recently (graphs below).

Yield curve is not steep (as it was in 2015); breakeven inflation is up at the top, but below 2015-16





In short, on the one hand, there are no signs of a Central Bank hesitating to combat inflation, of a steepening of the interest rate curve, or that the increases in the Selic rate are contributing to the depreciation of the exchange rate. However, the deterioration in the credibility of the fiscal trajectory has been significant, contributing to an increase in the risk premium and leading to a period of stress, which, although less pronounced than the one observed in 2015-16, has been accompanied by an increase in breakeven inflation and may lead to clearer capital outflows. The fact that fiscal dominance remains an important topic of public debate suggests that we are not in full normality. Our analysis of the situation reinforces the need for measures that will lead to more balanced prospects for public debt going forward.

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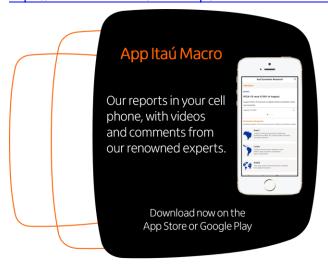
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