

# Fiscal Rules And Public Finance Sustainability: Lessons From Global Practices

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## Abstract:

**Background:** The complexities of fiscal policy and public finance management in times of economic crises have prompted a need for a deeper understanding of the intertemporal rules that govern public debt and deficits. This article explores the theoretical and practical implications of these rules within various international contexts, focusing particularly on the impact of fiscal responsibility laws, like Brazil's Fiscal Responsibility Law (LRF). The study analyses the effectiveness of these rules in maintaining economic stability and the necessary flexibility they must entail to adapt to economic downturns, unforeseen expenditures, and changing market conditions. Drawing from case studies in Brazil, the European Monetary Union, and New Zealand, the paper highlights the challenges and successes of implementing strict versus discretionary fiscal measures. It argues that while strict rules can enhance transparency and predictability, discretionary measures are crucial for addressing unexpected economic shifts and ensuring sustainable debt management. The findings suggest that a balanced approach, incorporating both stringent rules and the allowance for necessary discretion, is essential for effective fiscal governance and long-term economic resilience. This research contributes to the discourse on the optimal design of fiscal policy frameworks, advocating for a nuanced approach that accommodates both structure and flexibility.

**Methodology:** This study employs a descriptive exploratory approach, combining a literature review with case study analysis to investigate the implications of fiscal responsibility laws in various international contexts. The aim is to explore intertemporal dynamics and describe the practical effects of these laws on fiscal management. The methodology includes developing a theoretical model to identify public financing limits and a comparative analysis of practices in countries such as Brazil, the European Monetary Union, and New Zealand. The study seeks to assess the effectiveness of fiscal rules in economic stabilisation and adaptation to economic changes, contributing to the development of more efficient and flexible fiscal policy frameworks.

**Conclusion:** This study underscores the necessity of a balanced fiscal framework that integrates stringent rules and discretionary measures to manage public finances effectively. The findings highlight that while strict fiscal rules enhance predictability and transparency, flexibility within these frameworks is essential to respond to economic fluctuations and unforeseen fiscal challenges. Ultimately, this approach supports sustainable economic management and resilience, offering valuable insights for policymakers striving to optimize fiscal strategies in diverse economic landscapes.

**Key Word:** Fiscal Rules; Fiscal Responsibility Law (FRL); Discretionary Fiscal Measures; Debt Management; Public Finance Sustainability.

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## I. Introduction

The sustainability of public finances is an increasingly important topic in the global economic landscape, particularly during economic crises. Fiscal rules are crucial in managing public finances, providing a framework to help prevent excessive deficits and sustain public debt. However, the effectiveness of these rules depends on their ability to adapt to varying economic conditions and unexpected shocks.

This paper delves into the theoretical and practical implications of fiscal rules in various international settings, focusing on Brazil's Fiscal Responsibility Law (FRL). The FRL stands as a significant example of a rigid framework that fosters transparency and predictability in public finances, while also allowing for flexibility to address unforeseen economic fluctuations and unexpected expenditures. The analysis presents unique case studies from Brazil, the European Monetary Union, and New Zealand, underscoring the distinct challenges and successes in implementing stringent versus discretionary fiscal measures.

The primary objective of this study is to investigate the effectiveness of fiscal rules in stabilising economic growth and adapting to economic changes, contributing to the development of more efficient and flexible fiscal policy frameworks. The research aims to understand how different approaches to fiscal rules can influence the sustainability of public finances and long-term economic resilience. This study is relevant because

it provides valuable insights for policymakers on balancing the need for strict fiscal rules with the flexibility required to respond to unforeseen economic changes.

To achieve these objectives, the paper is structured as follows: a literature review on the theory and practice of fiscal rules is conducted, highlighting the main concepts and debates in the field. Following this, the study's methodology is presented, describing the descriptive and exploratory approach used, which combines a literature review with case study analysis. Subsequently, the cases of Brazil, the European Monetary Union, and New Zealand are examined in detail, comparing the different approaches and the results achieved. The discussion section analyses the findings from the case studies, debating the strengths and limitations of the different approaches to fiscal rules.

Finally, the conclusions and recommendations are presented, summarising the main findings of the study and offering guidelines for developing fiscal policy frameworks that balance the need for strict rules with the necessary flexibility to respond to unforeseen economic changes.

Ultimately, this study strives to significantly contribute to the understanding and development of efficient and flexible fiscal policies that can effectively promote long-term economic sustainability.

## **II. Time, Money, And Crisis: The Temporal And Monetary Nature Of Crises In Keynesian Theory**

One of the fundamental advances of Keynesian theory is the introduction of historical time, as pointed out by Chick (1970) and recognised by Brady (2019). This finding contrasts with neoclassical theory, where time is a logical category divided between short and long-term. This division does not reflect the passage of time, as it does not allow for the flexibility of assumptions over time, resulting in rigid and separate short- and long-term models. Thus, there are two distinct models. The productive structure is constant in the short-term model, while capital can vary in the long-term model.

The methodological problem is that it is not possible to move from one model to the other as one moves from one day to the next, nor is it possible to assert that the long term is simply an accumulation of short terms. The short term is not shorter than the long term, nor does it come before the long term because before-and-after notions exist only when the temporal dimension is introduced. This finding stems from Keynes' (1936) discussion on how short-term expectations differ from long-term expectations.

In both models, various movements of variables are simultaneous. Even when the theory seeks to construct explanations such as "it is the increase in the money supply that generates price increases and not the other way around," as established in the IS-LM model (Hicks, 1937), it is not possible to separate before and after. This inability to distinguish before and after represents a critical flaw in the model. The lack of a clear separation between before and after is due to the static and simultaneous nature of the association of these variables. This limitation hinders the model's ability to capture the temporal dynamics of economic variables and the complexity of their interactions over time (Clower, 1965).

Since the existence of cause-and-effect relationships typically allows for the construction of theoretical explanations, the simultaneity in neoclassical theory prevents the theory from being based on causality. This has led to many controversies and criticisms about possible inversions of causality. Additionally, it has made the role of closure rules very significant, as they encompass all the theory embedded in the model. Thus, several findings are the result of the analytical choices within the model (Lawson, 1997).

Short and long terms thus consisted of two truly different models with the same variables but different closure rules, which did not interact. On the other hand, the historical time adopted by Keynes allows for the treatment of inter-period sequences because they are not simultaneous (Davidson, 1994). A dynamic model must not only have an ordering, which allows for comparing static positions by knowing what comes before and what comes after but also show how one moves from one position to another. Historical time also requires considering fundamental characteristics such as irreversibility, the possibility of non-repetition of events, and structural changes, such as technical progress and institutional changes.

The introduction of real-time into economic theory seems to have an intrinsic relationship with understanding monetary phenomena and crises (Minsky, 1986). In Keynes, for example, effective demand results from two decisions: the decision to consume (D1) and the decision to invest (D2). The difference is important because time has little effect on the decision to consume, a function of income and the marginal propensity to consume, given in a specific period. The decision to consume is less complex than the decision to invest because the determination of consumption is subordinate to the income level, which, in turn, depends on investment over a sequence of periods.

However, the decision to invest will fundamentally depend on entrepreneurs' expectations regarding the level of demand. These anticipations affect the decision to invest directly and through monetary channels by determining the preference for liquidity and, consequently, the level of interest rates for a given money supply. This interest rate will affect the cost of production, and its comparison with the marginal efficiency of capital will determine whether entrepreneurs should expand their productive capacity by making new investments.

It is noted that, in the absence of demand expectations responsible for investment volatility, the static decision to produce and employ for a given productive capacity would remain static (Minsky, 1975), which is very similar to neoclassical theory. In this case, price expectations determine the capital asset's expected yield, which, along with the production cost, a function of the interest rate, determines the marginal efficiency of capital. In this case, short-term expectations have a much lower degree of unpredictability because they refer to a shorter period where events occur more frequently. Agents can move to get it right through a trial-and-error process that tends towards accuracy. Additionally, price errors can be corrected because the decision to produce and employ is reversible. In this case, although the economy is not necessarily in equilibrium, it fluctuates around it.

Even though Keynesian theory also had its static side, the dynamic side allowed the nature of crises to be explained. This is because it is possible to get price expectations right on average but not necessarily to get demand expectations right. Agents not only fail to predict the future perfectly or with a reasonable margin of accuracy, as in an adaptive expectations model, because events do not repeat themselves in the same way. When realised, investment increases demand relative to the level that guided the decision (Nunes, 2023). There are several "feedback" effects like this, expressed by Chick (1970) in the following terms: when the aim changes, the target changes.

Moreover, global demand will not depend solely on the demand generated by that particular investment but also on the demand created by the investments of others. Since capitalists do not invest as a class but compete with each other (Marx, 1985), decisions are not made in a coordinated game, and something is needed to guarantee that the investment will meet the anticipated demand. This demand could be higher, lower, or equal. Moreover, what is worse is that if they make the wrong decision by investing at a level higher than the existing demand, agents will only realise this fact once the decision has materialised. They cannot reverse it because, with time flowing unidirectional, the investment is irreversible. Thus, a crisis becomes imminent because, once the investment is made, even if the production does not find a market, the decision to invest cannot be revised, causing irreparable loss.

This work highlights that the basis of Keynesian uncertainty leading to a crisis is not risk, lack of information, or even the irrationality of agents but time. In this regard, Lawson (1988) provides an explanatory framework in which he conceptually distinguishes the formation of expectations in Keynes, Friedman, Lucas, and Knight.

PROPERTY \ KNOWLEDGE	KNOWLEDGE	MEASURABLE EXTERNAL WORLD
<b>PROBABILITY</b>		
<b>MENSURABLE</b>	Savage, Friedman	Muth, Lucas
<b>NON-MENSURABLE</b>	Keynes	Knight

A simple financial rule can even calculate the risk of error in a decision, but this does not prevent the independent variables of the calculation from changing. In the words of Keynes:

*By 'uncertain' knowledge, let me explain, I do not mean merely to distinguish what is known for certain from what is only probable. About these matters there is no scientific basis on which to form any calculable probability whatever. We simply do not know. (KEYNES, 1937, p.113-114)*

They may be rational, but rationality does not prevent agents' decisions from being asymmetrical or the object of rational decision-making from shifting. The one who saves is not the same as the one who lends, and the latter is not the same as the one who invests, who, in turn, is not the same as the one who works. Thus, they may be rational and still make decisions that are incongruent with each other. Moreover, even if entrepreneurs make decisions aiming to get it right, they may still be wrong because their target is dynamic.

Agents may also have access to all available information, but this does not guarantee that new information will not emerge. They may be rational, but rationality does not prevent agents' decisions from being asymmetrical or the object of rational decision-making from shifting. The one who saves is not the same as the one who lends, and the latter is not the same as the one who invests, who, in turn, is not the same as the one who works. Thus, they may be rational and still make decisions that are incongruent with each other. Moreover, even if entrepreneurs make decisions aiming to get it right, they may still be wrong because their target is dynamic. Therefore, Keynes highlights the inherent uncertainty and the difficulty of forming calculable probabilities in economic decisions.

Wang (2018), an author who writes about stock price forecasts, reinforces Keynes's view that uncertain knowledge is difficult to quantify and predict. According to Wang, information from analysts and insiders can be used in this environment of uncertainty. Wang states that even if agents have detailed information, the independent variables and the market environment can change; impacting the accuracy of decisions, aligning with Keynes's idea that market predictability is limited.

Moreover, rationality, in this case, imposes a certain prudence in comparing the two current decisions: the more reversible decision to hold money and the more irreversible decision to invest. Paul Davidson (2002) emphasises this prudence by stating that, in a non-ergodic world, rational economic agents often choose to hold liquid assets rather than commit to irreversible investments. This liquidity preference is a rational response to the uncertainty of future market conditions. Thus, because agents are rational, hoarding might be the chosen option in the absence of favourable investment expectations. Money is the link between the present and the unpredictable future. It is an anchor for the system as agents seek to protect themselves by keeping a significant portion of their assets in more liquid forms. In Keynesian theory, every crisis and expansion will be endogenous to money through the release of cash during phases of optimism and its retention amidst waves of pessimism.

The decision to hold money, which might be considered irrational under different conditions, is not so in a world of uncertainty (Keynes, 1936). In this case, ex-ante savings will exceed investment. There will be an increase in liquidity preference in the money market and insufficient demand in the goods market, meaning that not everything produced will be consumed. The increase in liquidity preference will raise the interest rate, consequently reducing the level of investment. The typical Keynesian crisis will thus be characterised by insufficient demand, overproduction or under consumption, and unemployment. When there are favourable expectations, on the other hand, it will be a phase of expansion where liquidity preference will be lower, reducing the interest rate, with positive effects on the level of investment.

Subject to the liquidity demand, the credit demand is also likely to be higher during an expansion phase. In this way, investment might even exceed savings due to credit mechanisms that allow for the anticipation of production without prior savings. This money, created endogenously by the liquidity preference function and credit mechanisms, is based on trust and the social acceptance granted to it, not on savings or any other backing. Investment does not need to be preceded by savings because these decisions are separate temporally and logically. There is no reason for people to save a certain proportion of their income when entrepreneurs decide to invest.

Banks, in their strategic role, significantly influence the investment financing process by creating money in two distinct ways. Firstly, they centralise pre-existing resources, such as prior savings, which is crucial due to the decision-making asymmetry among agents. Those who decide to save are not usually the same ones who decide to invest. This centralisation of savings effectively prevents hoarding, liberating cash and stimulating economic activity. Secondly, banks create money independently of prior savings, the amount of cash circulation in the economy, or any other backing. They lend more than they hold in the form of deposits, maintaining a reserve only to cover contingencies. This is possible because, under normal economic conditions, agents will not withdraw everything they are entitled to simultaneously. Therefore, bank deposits do not quantitatively limit the level of loans, and the contingency reserve is not fixed, but varies according to the banks' expectations and the state of liquidity in the economy.

Endogenous money can be viewed from either supply or demand perspectives, Moore (1988). In Minsky (1986), the supply perspective predominates. The release of cash constitutes the creation of money and reacts to the liquidity preference, which varies endogenously according to the agents' expectations. Furthermore, monetary authority is also endogenous to society because it is subject to its pressures and, although hierarchically superior, does not hold complete control over money creation. This results in monetary policy having a minimal scope, especially during crises of insufficient effective demand, when agents are expected to protect themselves by conserving their assets in money.

Keynes had already described the liquidity trap as that situation in which agents hoard any increase in the money supply, neutralising its effect on the interest rate:

*(...) although it is expected that, ceteris paribus, an increase in the amount of money would reduce the interest rate, this will not occur if preferences for liquidity increase more than the quantity of money. (KEYNES 1936, p. 167)*

Although the liquidity trap is indeed an extreme case that completely removes the effectiveness of monetary policy, it can be said that even in less extreme situations, the endogenous nature of money in Keynes, expressed in his theory of preference, means that the crisis finds no solution in monetary control.

In Kaldor (1982), endogenous fashion predominates from the demand perspective. Suppose the money supply was limited in the narrowest sense (M1). In that case, people might devise new ways to handle money, like debits and credits that do not use physical money, tickets and vouchers, and derivatives. They might also rely more on credit to meet their liquidity needs, which would stay the same. Moreover, the velocity of circulation of monetary units would tend to vary inversely according to the preference for liquidity.

The major problem with Keynesian theory lies in explaining the reversal of cycles due to its known feedback effect (Paul Davidson, 1994). When pessimism exists, hoarding increases, investment decreases, realisation problems arise, and demand decreases further, discouraging investment again and exacerbating the problem. Similarly, when expectations are favourable, higher profits than current ones are anticipated, investment increases, and employment, demand, production, and income, thereby stimulating investment. The

subjectivity of expectations does not explain how the crisis is triggered or resolved. For this reason, several authors prefer that there are no cycles in Keynes, which implies a certain regularity but rather an instability.

The use of credit mechanisms, by definition without backing, amplifies these fluctuations, allowing for either accelerated growth or deepening depression. Thus, the expansion phase can end up causing over-indebtedness and financial fragility, as shown by Minsky (1986). The level of liquidity preference and the borrowing capacity of firms, which would reflect their ability to meet commitments, their robustness or fragility, or their market power, would then limit financing conditions. However, Minsky also does not explain how favourable expectations turn into unfavourable ones and vice versa.

### **III. Financial Fragility Of The Public Sector: In Search Of The Limits Of The State's Financing Capacity**

Despite the difficulty of constructing explanations for cycles, Keynesian and post-Keynesian theories anticipate another type of crisis associated with indebtedness. However, Minsky (1986) addressed this only in its private dimension: the private sector can become excessively indebted. The public sector would be responsible for stabilisation. Since the crisis of insufficient effective demand does not find a monetary solution, Keynesian prescription recommends fiscal policy, which would autonomously increase employment, demand, and income by increasing government spending on consumption and investment. The solution to the crisis of insufficient effective demand would be exogenous. However, it is unclear how long the public sector can be relied upon to pull the economy out of depression, nor what the alternative would be if the crisis were one of indebtedness, causing excessive economic expansion. These aspects will concern other authors, especially those attentive to the public dimension of debt problems. However, this was addressed by Minsky only in its private dimension: it is the private sector that can become excessively indebted. The public sector would be responsible for stabilisation. Since the crisis of insufficient effective demand does not find a monetary solution, Keynesian prescription recommends fiscal policy, which would autonomously increase employment, demand, and income by increasing government spending on consumption and investment. The solution to the crisis of insufficient effective demand would be exogenous. However, it is unclear how long the public sector can be relied upon to pull the economy out of depression, nor what the alternative would be if the crisis were one of indebtedness, causing excessive economic expansion. These aspects will concern other authors, especially those attentive to the public dimension of debt problems.

Later, Domar (1944) and Lerner (1946) provided a new formulation to the problem, showing that the debt generated to finance public spending, under certain circumstances, would converge to a natural limit. Domar argued that the debt-to-GDP ratio would tend towards equilibrium whenever there was economic growth. For Lerner, the issuance of bonds would trigger a virtuous circle by generating more income and employment, eliminating the origin of new deficits, either by removing the insufficiency of effective demand or by increasing tax revenue through expanding the base and, consequently, the government's financing limits. In this context, interest would not represent a burden on society, being seen as a mere transfer.

On the other hand, Friedman (1968)'s argument is well known: Unlike financing the fiscal deficit through the expansion of the monetary base, the issuance of securities would drain the liquidity of the private sector, potentially leading to an increase in interest rates and a reduction in private investment, with recessionary effects on the income level (crowding out). Furthermore, to purchase public debt securities attractive to the public sector, the government might be forced to increase interest rates, progressively reinforcing the described effect. Additionally, since this form of financing would increase spending on interest payments, to avoid an explosive debt trajectory, the government would need, in the future, to increase tax revenues or decrease transfers to other sectors, resulting in a drop in income. These effects tend to offset each other, determining the neutrality of fiscal policy in the long run.

The school of rational expectations, of which Sargent (1979) is one of the most notable representatives, revived a more radical interpretation: that the neutrality of fiscal policy applies even in the short term, as agents anticipate the results of government actions. That is, if agents anticipated this trajectory, as in the models of rational expectations, it would not even begin. The new classical conclusion regarding economic policy is identical to the monetarist one. There should be no fiscal policy (Barro (1974)) nor monetary policy (Sargent (1979)), avoiding the emergence of inflationary crises and public deficits. Along these lines, Modigliani (1962), Buchanan (1958), Meade (1958), Musgrave (1959), Diamond (1965), and Barro (1974) also warned about the problem of public financing, more specifically the burden of public debt, which would only allow for an intertemporal allocation in favour of present consumption to the detriment of future consumption.

On the other hand, the idea that economic policy should be governed by fixed rules rather than the discretionary power of governments has long been present in economic literature. Initially, the main concern was the monetary financing of fiscal policy. Authors such as Hayek (1973), Friedman (1968), and Lucas (1972) advocated the adoption of fixed rules for monetary aggregates as a way to avoid inflation and increasing debt. Friedman acknowledged that discretionary measures could be more appropriate if they could accurately track

the evolution of economic parameters. However, since the damage caused by errors in economic policy would be significant, replacing discretionary actions with fixed rules enshrined in law would be preferable.

A facet of the rules versus discretion debate relates to the association between discretionary power and political pressures. Authors such as Pissarides (1980) and Buchanan (1986) have explained why governments persist in undertaking expansionary fiscal and monetary policies to raise employment levels. Fiscal policy and the publicity surrounding public works would be utilised as instruments of political action by governments, which seek to achieve popularity ratings that would allow them to remain in power.

Even with rational expectations, it would be possible to affect the level of employment in the short term by surprising agents with unanticipated changes in the money supply, thereby causing monetary disturbances in the medium to long term. As governments have a timeframe limited by their term in office, they emphasise decisions that yield quick results to the detriment of price stability, which offers long-term benefits. The fundamental problem is the inherent fragility of policy as a process for making economic decisions, which requires the establishment of priorities supported by consistent goals. According to Grossman:

*the most basic problem (...) seems to be the inherent weakness of politics as a process for making economic decisions. Experience suggests that the political process has a limited ability to specify consistent goals, establish priorities, and choose between competing objectives about economic matters, especially when these decisions require comprehension of technical issues and constant processing of complex information.* (GROSSMAN 1988, p. 8).

In this regard, Kydland and Prescott (1977), Buchanan (1986), and Dorn (1987) suggest that the objective of price stability should be achieved through the establishment of rules that shape the desired policy. These include the public announcement of the objectives to be pursued, the adoption of pre-announced quantitative targets for various concepts of the money supply, the recommendation of mandatory constraints on the generation of public deficits, and the imposition of constitutional limitations on taxation and the financing of government expenditure.

Buchanan (1986) advocated incorporating such norms into the Federal Constitution, which has indeed occurred in many countries. The most common rules, adopted by many countries, prohibit central banks from financing the government. These include the well-known "golden rule" (credit operations should not finance current expenditures) (see Kopits and Craig, 1998) and limitations on financing through taxes. The political process tends to emphasise decisions that yield quick results to the detriment of stability. Therefore, it becomes important to introduce end-of-term rules. Introducing such rules is especially important regarding personnel expenses.

The 1990s marked an evolution in this practice based on the experiences of the United States, the European Monetary Union (EMU), and New Zealand. In the United States, the Budget Enforcement Act (BEA) of 1990 introduced automatic cut mechanisms for federal government expenses whenever forecasts indicate that the fiscal targets set by Congress in the budgetary process will not be met.

In Europe, the Maastricht Treaty of 1992 established general norms to be followed by all countries, with the basic principle that member states should avoid excessive government deficits (Nunes & Nunes, 2000). Other agreements within the EMU set targets for:

- a) annual inflation rates, a maximum of 1.5% above the average of the three countries with the lowest inflation;
- b) long-term interest rates, not exceeding 2.0% above the average long-term interest rates in the three European countries with the lowest inflation;
- c) budget deficit: 3% of GDP;
- d) public debt level: 60% of GDP; and
- e) maintenance of exchange rates over the last two years.

Member countries adhere to the principles of a confederation, conducting their policies with relative independence. Their policies must converge towards the agreed criteria, allowing for deviations as long as the adjustment trend is maintained. Otherwise, penalties are provided for in the protocol.

The experiences of the United States of America and the EMU countries present possibilities for implementing fiscal policy within a federal structure. In federations, the rules versus discretion debate gains new elements. Restoring consistency is fundamental, and the way to achieve this must respect the peculiarities of each country. However, establishing rules without violating the principle of federal autonomy is difficult. In this case, the institutional complexity tends to be amplified by the division of functions among the levels of the federation, which make fiscal decisions, often making it difficult to separate economic policies and identify those responsible for them.

For example, the analysis of international experiences presents a diversity of approaches to subnational indebtedness. Generally speaking, according to Ter-Minassian and Craig (1997), four main approaches can be distinguished, although some countries may use techniques encompassing more than one. The first is based on relying on market discipline to determine the borrowing limits of states. The second involves a cooperative approach to debt controls, whose limits result from negotiations between the central and subnational

governments. The third pertains to controlling subnational indebtedness based on specific rules in the constitution or law. Lastly, the fourth approach refers to the direct control of the central government over subnational indebtedness.

In the EMU, the formulation and application of regulations affect autonomous and sovereign countries. In contrast, in the United States, the legislation applies only to the federal government, as each federative unit has its own rules. Although the focus of the BEA is restricted to the federal government, this instrument represents a successful case of controlling expenditure growth.

In New Zealand, the Fiscal Responsibility Act of 1994 established principles for maintaining debt and assets at prudent levels, according to Scott (1966) and Carvalho (1997). Parliament sets performance criteria generally, and the Executive has the freedom to budget and spend, provided society has extensive and strict oversight. In this case, social control overrides the rigidity of rules, making this experience an international paradigm in terms of transparency, leading Kopits and Craig to assert:

*The Fiscal Responsibility Act of 1994, which contains a set of principles for fiscal management and transparency, is the culmination of a decade of reform designed to improve the efficiency, effectiveness, and accountability of what had been a large and interventionist public sector.* KOPITS and CRAIG (1998, p.37)

Whether by adhering to strict rules, as is the case in the United States and the EMU, or by allowing greater discretion and relying on market control, as in New Zealand, the fact remains that the success of these experiences shares a common idea: the sustainability of financing capacity must be sought. Whether by adhering to strict rules, as is the case in the United States and the EMU, or by allowing greater discretion and relying on market control, as in New Zealand, the shared success factor for these approaches is the recognition that financial sustainability must be pursued. Achieving this requires consistent macroeconomic targets with suitable fiscal and monetary breadth over time. It is possible to determine the amount of the financeable deficit by starting from the government's budget constraint, which links deficits to their financing sources, and from the objectives of economic policy—inflation, product growth, and real exchange rate.

Anand and Wijnbergen (1989) present a model that explains changes in the growth trajectory of public debt as a result of this specific association between economic policies. Fiscal deficits can be financed in three ways: issuance of domestic debt securities, foreign debt, and monetary financing. Macroeconomic objectives impose constraints on these financing sources, partly because they affect how much the private sector is willing to absorb at given interest rates.

As a result, it is possible to define a limit to the amount of deficit that can be financed, and if the deficit exceeds this limit, one of the macroeconomic objectives must be abandoned or fiscal policy adjusted. Of course, there are no priori guarantees that these objectives will be achieved, only that fiscal policy is not inconsistent with them. According to this analysis, consistency between fiscal and monetary policy is achieved when generating a stable debt-to-GDP trajectory is possible through the simultaneous attainment of these objectives. The limits of this process are then set by the sustainability of financing capacity over time. The following may occur (a) levels of inflation that are out of control; (b) a tax burden considered excessive; (c) an increasing debt-to-GDP ratio; (d) insufficient fiscal resources to meet the social needs that would be the responsibility of the state in the current model; or, finally, (e) a combination of these issues.

Strictly speaking, the deficit would not be a problem as long as it is financeable, that is, as long as there are sources of financing, in terms of availability and costs, that does not imply a future perspective of financing incapacity. The idea contained in Keynesian-inspired models is that if the deficit is fiscal and intended to increase income. Consequently, the tax base, at a pace compatible with its financing, the debt remains under control. A vulnerability in public finances would be characterized by indebtedness at a rate higher than the generation of resources necessary to address it.

In this context, the debt strategy may sacrifice future budgetary balance because the current budget constraint fuels inflationary expectations even if favourable external shocks allow for a reduction in inflation. Such a strategy leads to a vicious cycle of high interest rates, elevated debt service, budget deficits, renewed inflationary expectations, and high interest rates. As can be seen, the relationship between deficit and debt is not unidirectional.

#### **IV. Intertemporal Rules And Complications Of Taxing Capacity**

The characteristics of crises, sometimes recession and unemployment, sometimes fiscal deficits and inflation, have necessitated a theoretical reconsideration of the limits of state action and the use of various economic policy instruments. It is becoming increasingly urgent to establish limits in light of the recognition that there were both positive and negative effects of public deficits and that, besides the method of financing expenditure, it was necessary to consider its volume relative to other economic variables. More than that, the intertemporal nature of the state's financial crisis also demanded that such limits be dynamic.

Regarding the budgetary process, international experience has often shown that revenue is frequently overestimated due to the difficulty associated with its prediction or errors in forecasting the economic situation

(such as expectations of economic growth and inflation), Alesina and Perotti (1996). At the same time, expenditures tend to be underestimated because the annual budget records only the expenses authorised for that period, and often, some expenses extend beyond a financial year. Examples include investments generally realised over a more extended period, exceeding five years, and ongoing current expenditures, particularly those originating from capital expenditures made in the past.

The existence of future expenditure flows not anticipated in the first fiscal year when the expenditure is budgeted leads to fiscal imbalances that escape ex-ante analysis, becoming visible only once the facts are established. Due to these budgetary limitations, the concept of fiscal result adopted becomes a very optimistic indicator of the government's long-term payment capacity, as it does not incorporate the expected future costs of the obligations the government has taken on. Blejer and Cheasty (1990) present these limitations of the commonly used concepts. The state apparatus soon discovers in inter-temporality a haven to postpone fiscal adjustment. The balance of public accounts, planned to occur with a given expenditure, is caught off guard by unforeseen expenses, which were not included in the budget and have a multiplying effect as they are financed by public debt securities, on which charges accrue.

In Brazil, these intertemporal shortcomings of the budgetary process and the concept of deficit were responsible for the emergence of quasi-fiscal deficits and debts that remained undisclosed for a long time, reflected in the growth of public debt securities and privatisation currencies in the 1990s, see Nunes (1998) and Nunes (1999). The magnitude of this problem points to the need for a comprehensive and rigorous budget formulation as a prerequisite for fiscal discipline. Nunes (1998) suggested the inclusion of ongoing expenses in a kind of multi-year budget annexed to the Multi-Year Plan or the Budget Guidelines Law, which would contain, in addition to goals and intentions, estimates of already committed future expenditures in order to provide a forecast of the debt-to-GDP ratio over a series of periods. This intertemporal document should be subject to monitoring and periodic review.

Those who prefer discretion to rules argue that the lack of flexibility inherent in rules generally makes their maintenance unfeasible over time. Moreover, the notion that rules are too rigid to be adhered to also leads to non-compliance, as it undermines the credibility of the process. Consequently, international bodies are now giving the principle of fiscal transfer the same importance as fiscal responsibility, IMF (1998).

Discretion presents an argument that cannot be ignored: the lack of flexibility inherent in rules generally renders their maintenance unfeasible over time.

Theoretically, the flexibility contained in the Brazilian Fiscal Responsibility Law (LRF) illustrates a thoughtful approach to the role of public spending. The theory reevaluates the state's operational limits and swings between focusing on the public deficit's positive and negative aspects. On the one hand, there is a drive to enhance the budget process and ensure consistency that would stabilise the debt-to-GDP ratio over time. On the other hand, flexibility acknowledges that, in certain situations such as war, social unrest, natural disasters, or economic downturns, stricter measures may lead to more significant problems. Therefore, in these scenarios, automatic budget cuts are not enforced to prevent a recession that could fail to meet fiscal targets, thereby avoiding a cycle of reduced public expenditure that would further weaken economic activity and tax revenue.

For the same reason, the deadlines for meeting debt and personnel limits are extended in such situations. In low economic growth cases, there are three ranges of GDP variation with corresponding extension periods. Regarding debt, due to its susceptibility to monetary and exchange rate policies, an additional flexibility was introduced for cases of highly drastic changes in monetary and exchange policies, as recognised by the Federal Senate. The Fiscal Responsibility Law (LRF), therefore, acknowledges that, as stated in the principles, to avoid structural imbalances, it is sufficient that public spending be limited to the average of genuine revenue made available.

## **V. Conclusion**

This study has comprehensively examined fiscal rules and responsibilities across different international contexts, focusing on Brazil's Fiscal Responsibility Law (LRF), the European Monetary Union, and New Zealand. Our research highlights the critical balance between strict fiscal rules and the need for flexibility to manage unforeseen economic shifts effectively. While strict rules enhance transparency and predictability, our findings suggest that incorporating discretionary measures is essential for managing unexpected economic variations and ensuring sustainable debt management.

As vivid illustrations, the case studies demonstrate varying success levels in implementing fiscal measures, indicating the absence of a universal approach. Instead, a nuanced framework, as a complex solution, that adjusts to specific economic conditions while upholding overall fiscal discipline seems to be the most effective. This approach, as a sophisticated strategy, should ideally amalgamate robust fiscal rules with provisions for necessary discretion to adapt to economic downturns, unforeseen expenditures, and changing market conditions.

Future research, of utmost importance, should concentrate on broadening the scope of case studies to encompass more diverse geopolitical areas, thereby advancing our comprehension of how different fiscal environments influence the efficacy of fiscal rules. Additionally, developing more sophisticated quantitative models, as a promising avenue, would augment predictions of fiscal policy outcomes under various economic scenarios. Long-term studies, as a potential goldmine of insights, could shed light on the enduring effects of these policies on economic stability and growth. As a rich source of knowledge, exploring the broader socio-economic impacts of fiscal policies would also provide deeper insights into how these policies influence social equity and economic disparity. Finally, delving into technological advances in fiscal management could present new avenues to enhance transparency and accountability in fiscal governance.

These recommendations are designed to broaden the scope of fiscal policy research, enhancing the understanding and implementation of fiscal governance frameworks that effectively balance discipline with flexibility in an ever-changing global economic landscape.

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