

## Forum: Practical Perspectives

# The fiscal management of the state of Rio de Janeiro: An analysis in light of the fiscal responsibility law and debt sustainability in the period from 2001 to 2017

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The aim of this research is to verify the role of the fiscal responsibility law (FRL) in the dynamics of the fiscal management of Rio de Janeiro, and in the sustainability of the state's public debt in the period from 2001 to 2017. It was observed that Legislation limits were extrapolated, and concomitantly, the decrease in GDP, the rise in interest rates and the continuous primary deficits from 2012, triggered a serious mismatch of public accounts. It is concluded that, although the FRL played a disciplinary role in the management of the state of Rio de Janeiro's finances until mid-2012, the legislation did not limit the mismanagement of resources and was not enough to avoid the fiscal unsustainability installed in the state from 2014.

**Keywords:** Rio de Janeiro; fiscal responsibility law; tax management.

### A gestão fiscal do estado do Rio de Janeiro: uma análise à luz da LRF e da sustentabilidade da dívida no período de 2001 a 2017

O objetivo desta pesquisa é verificar o papel da LRF na dinâmica da gestão fiscal do Rio de Janeiro e na sustentabilidade da dívida pública estadual no período de 2001 a 2017. Observou-se que os limites permitidos pela legislação foram extrapolados, e, de forma concomitante, o decréscimo do PIB, a elevação das taxas de juros e os contínuos déficits primários a partir de 2012 desencadearam um grave descompasso das contas públicas. Conclui-se que, embora a LRF tenha desempenhado um papel disciplinador na gestão das finanças do estado do Rio de Janeiro até meados de 2012, a legislação não limitou a má gestão dos recursos e não foi suficiente para evitar a insustentabilidade fiscal instalada no estado a partir de 2014.

**Palavras-chave:** Rio de Janeiro; Lei de Responsabilidade Fiscal; gestão fiscal.

### La gestión fiscal del estado de Rio de Janeiro: un análisis a la luz de la LRF y la sostenibilidad de la deuda 2001-2017

El objetivo de esta investigación es verificar el papel de la LRF en la dinámica de la gestión fiscal de Río de Janeiro y en la sostenibilidad de la deuda pública estadual en el período de 2001 a 2017. Se observó que los límites permitidos por la legislación fueron extrapolados y, de forma concomitante, el descenso del PIB, la elevación de las tasas de interés y los continuos déficit primarios a partir de 2012 desencadenaron un grave desajuste de las cuentas públicas. Se concluye que, aunque la LRF desempeñó un papel disciplinario en la gestión de las finanzas del estado de Río de Janeiro hasta mediados de 2012, la legislación no limitó la mala gestión de los recursos y no fue suficiente para evitar la insostenibilidad fiscal instalada en el estado a partir de 2014.

**Palabras clave:** Rio de Janeiro; Ley de Responsabilidad Fiscal; gestión fiscal.

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## 1. INTRODUCTION

Public debt is the main instrument, alongside taxes, for financing state government spending. In a virtuous cycle, public debt promotes development, increases revenue collecting capacity, and diminishes the importance of intertemporal restrictions that managers sometimes face (Mora, 2016).

In this context, the development of principles and norms for the fiscal management of public finances plays an important role in controlling public spending and keeping public debt on a sustainable trajectory. In order to monitor public debt in Brazilian states, distinct pieces of legislation have been created and implemented, but part of this legislation has erred in proposed restructuring and fiscal adjustments without eliminating the sources of financial instability in public administration.

The Fiscal Responsibility Law (FRL) — Complementary Law N<sup>o</sup> 101/2000 — emerged as a mechanism for more rigorous planning and control, and includes expected limits and penalties, designed to preserve the fiscal situation that exists between subnational entities, safeguard financial health through the correct application of public resources, and provide future public managers with an inheritance of sustainable administration (Nascimento and Debus, 2002).

Even though the FRL played a crucial role in decreasing the debt of these states during the first decade of this century, a reduction in the growth of net revenues and the continuing growth of current expenses, associated with growing state debt and the fiscal weakening of the FRL, have resulted in a worsening of the fiscal crisis in many federal entities, especially the state of Rio de Janeiro (SRJ) (Mora, 2016).

In order to achieve the fundamental aims of the FRL and reach acceptable levels of personnel and retirement expenses and debt, the SRJ has adopted unpopular austerity measures, such as increasing taxes, laying off commissioned staff and civil servants, requiring larger retirement contributions for civil servants, changing the rules for retirees and pensioners, and ending social assistance programs such as low income restaurants.

However, the government of the SRJ has made continuous requests to renegotiate its debt with the federal government, and has exceeded the public spending limits permitted by the FRL without the associated revenues, exposing the SRJ to an unsustainable fiscal situation (Mora, 2016; Caldeira et al., 2016; Santos, 2015).

In this regard, this article seeks to answer: what is the role of the FRL in the dynamics of fiscal management and the sustainability of public debt in the SRJ? Thus, the overall goal of this study is to verify the role of the FRL within the dynamics of fiscal management in the SRJ and the sustainability of state public debt during the period from 2001 to 2017.

This work reinforces studies which have shown the importance of the FRL as a governance instrument to control debt and, as a result, the sustainability of public debt (Mello, Slomski and Corrar, 2005; Lima, Sampaio and Gaglianone, 2008; Borges et al., 2013; Caldeira et al., 2016). Moreover, it will fill in a gap in the research that has been completed by analyzing the fiscal management of the SRJ and the role of FRL in the renewed efforts to maintain fiscal equilibrium and the sustainability of state public debt, considering macroeconomic variables such as GDP, real interest rates and inflation.

## 2. LIMITS IMPOSED BY THE FISCAL RESPONSIBILITY LAW AND THE SUSTAINABILITY OF PUBLIC DEBT

Various institutional frameworks support the legal apparatus that accompanies and controls state public finances. In terms of underlying legal principles, the Federal Constitution of 1988 determines the general principles and parameters of the construction of the legal regime that applies to state debt (Mora, 2016). Law N<sup>o</sup> 9,496/1997, which deals with the renegotiation of state debt, seeks to support fiscal restructuring and adjustments for the states (Caldeira et al., 2016).

The FRL, created by Complementary Law N<sup>o</sup> 101/2000, reinforces the fiscal environment instituted by Law N<sup>o</sup> 9,496/1997, which covers the concepts of consolidated debt, real estate debts, credit operations, the concession of guarantees and the refinancing of real estate debt (Santos, 2015).

The Senate resolutions, especially Resolutions N<sup>o</sup> 40/2001 which governs global limits for state public consolidated and real estate debts, and N<sup>o</sup> 43/2001 which normalizes the limits of internal and external state credit operations, complementing the legal guidelines for the fiscal management of Brazilian states (Mora, 2016).

Among the pieces of legislation applied to Brazilian states, the FRL is considered to be a fundamental piece of this institutional framework, given that it seeks to guarantee the intertemporal equilibrium of public finances, the transparency of fiscal management and the establishment of rules in the state public debt process (Mora, 2016).

The FRL stipulates that the evaluation of the performance of public managers be performed using the ratio between Personnel Expenses and Net Revenues and the ratio between the Consolidated Net Debt and Net Revenues, based on predetermined limits (Dalmonech, Teixeira and Sant'Anna, 2011).

Net revenues, which corresponds to total current revenue minus the federal entity's legal deductions, is used as the denominator in these ratios to try to translate the effective capacity of the government entity's revenue collection and eliminate the double counting of transactions between public entities within the same government (Toledo Júnior, 2012).

The FRL also pays special attention to personnel expenses, mandating that the payroll cannot exceed 60% of net revenues. In this way, if some state surpasses limits that are predetermined to be prudent, the State Accounting Tribunal (SAT) will emit alerts and can implement spending limits according to Article 22 of the law (Brazil, 2000).

In terms of public debt, the FRL establishes the parameters for controlling debt, credit operations, concessions of guarantees, and the financing of real estate debt. In addition to stipulating these limits, the FRL reinforces the relevance of the primary balance and maintaining public debt at sustainable levels (Lima, Sampaio and Gaglianone, 2008; Borges et al., 2013).

Together the standards and challenges imposed on state finances have been: a) the fiscal weakening of 2014, promoted by the changing of the correction index used for state debt to the federal government, taking into account the possibility of increasing debt and stimulating irresponsible fiscal behavior, given the possibility of being rescued by the federal government; b) the quality of the fiscal adjustment realized by the states in order to obtain a reduction in the debt/GDP ratio which in general occurs through reducing investment; c) the recent economic crises during 2008-2009 and 2013-2016, which diminished the primary surplus of the states in proportion to GDP; and d) the behavior of the decrease in the surplus which became accentuated beginning in 2012, which affected the debt/GDP ratio (Caldeira et al., 2016).

These challenges have led to various studies about the potential inconsistency between the debt control and fiscal sustainability mechanisms, which are based only on net revenues, precisely because it is impossible to forecast them in state governments (Sodré, 2002). In addition, there has been an increase in debt in foreign currency associated with a new cycle of debt due to the Subprime crisis that began in 2008 (Pessoa and Santos, 2016; Mora, 2016; Fontenele, 2015).

Even though the mechanisms proposed by the FRL are oriented towards obtaining primary surpluses, intertemporal budgetary consistency also depends on other macroeconomic factors, such as the GDP, interest rates and inflation, and the behavior of these factors is characterized by volatility and uncertainty (Forslund et al., 2011). This, in turn, makes the construction of forecasts that anticipate the behavior of net revenues, within a scenario of foreign exchange risk and foreign currency debt, more difficult, and does not guarantee that an evaluation of these possibilities will be sufficient to establish the desired Debt/GDP ratio (Pessoa and Santos, 2016; Sodré, 2002).

### 3. METHODOLOGY

To achieve this study's objectives, we will use a quantitative approach based on an analysis of the SRJ's budgetary reports, which are available through the state transparency portal, the information published on the State Center for Statistics, Research and the Education of Civil Servants (Ceperj) website, and the macroeconomic indicators and state debt figures that appear on the website of the Brazilian Central Bank (Bacen).

After the data collection, we constructed indicators in tables and graphs for horizontal and vertical analyses of government expenses, debt indices (CND/NR), personnel expenses (PE/NR) and debt sustainability (CND/GDP) from the point of view of the FRL parameters, comparing the values encountered with the primary balance, GDP growth, interest rates and debt servicing for the SRJ from 2001 to 2017.

### 4. RESULTS AND ANALYSES

In this section, the data will be presented and analyzed in terms of the FRL in order to identify the role of this law in the fiscal management and sustainability of the SRJ from 2001 to 2017.

#### 4.1 NET REVENUES, GDP AND PERSONNEL EXPENSES

The FRL emphasizes that government revenues are essential requisites for the fiscal management of public entities, and in Article 13 it prescribes the measurements adopted for the revenue collection of all of the taxes established by the subnational government (Brazil, 2000).

In the same manner, the imposition of a limit of 60% of net revenues for personnel spending is an important pillar of the FRL, given that it signals the manager that the public sector has to maintain the resources that are essential to its functioning as well as meet the demands of social investments in the present as well as the future.

Table 1 shows that the behavior of state total revenues and net revenues indicated growth up until 2008, when the international Subprime crisis occurred, followed by a decrease of 9% in 2009. Revenues resumed their growth from 2010 to 2013, especially for the collection of federal government

and state taxes on the Fifa World Cup and the 2016 Olympic Games, and a new decrease in revenues took place from 2014 to 2017 (a decrease of 2.2% in 2013-2014 and 9.8% in 2015-2016) due to the country's economic and political crisis.

**TABLE 1** TOTAL AND NET REVENUES, GDP, TOTAL AND PERSONNEL EXPENSES, THE NR/GDP INDEX, AND THE PE/NR RATIO OF THE STATE OF RIO DE JANEIRO FROM 2001 TO 2017

Year	TR	NR	%NR*	GDP	%GDP*	NR/ GDP	TE	PE	% PE	PE/TE	PE/ NR
2001	17,757,911	13,608,848	–	148,033,000	–	9.2%	17,923,786	5,994,650	–	33.4%	44.0%
2002	19,166,412	15,100,326	11.0%	184,311,000	24.5%	8.2%	20,360,535	7,039,997	17.4%	39.3%	46.6%
2003	24,428,243	19,168,781	26.9%	202,641,000	9.9%	9.5%	24,366,464	9,375,603	33.2%	46.0%	48.9%
2004	27,647,996	21,009,274	9.6%	241,207,000	19.0%	8.7%	27,502,839	8,735,130	-6.8%	35.8%	41.6%
2005	30,274,363	23,094,091	9.9%	269,830,061	11.9%	8.6%	30,209,983	9,772,335	11.9%	35.5%	42.3%
2006	34,196,364	26,132,742	13.2%	299,738,183	11.1%	8.7%	34,088,412	9,731,293	-0.4%	32.2%	37.2%
2007	36,429,692	26,849,822	2.7%	323,698,286	8.0%	8.3%	35,648,437	9,766,904	0.4%	28.7%	36.4%
2008	42,950,931	31,830,883	18.6%	378,285,800	16.9%	8.4%	40,802,306	10,449,628	7.0%	29.3%	32.8%
2009	43,497,939	28,976,688	-9.0%	391,650,854	3.5%	7.4%	45,615,831	10,839,234	3.7%	26.6%	37.4%
2010	50,814,141	34,534,906	19.2%	449,858,101	14.9%	7.7%	51,002,384	12,510,136	15.4%	27.4%	36.2%
2011	57,454,091	39,268,345	13.7%	512,767,905	14.0%	7.7%	56,553,049	13,867,242	10.8%	27.2%	35.3%
2012	63,590,465	40,613,415	3.4%	574,884,973	12.1%	7.1%	63,819,247	15,847,965	14.3%	28.0%	39.0%
2013	71,192,474	47,064,197	15.9%	628,226,069	9.3%	7.5%	71,663,151	18,063,168	14.0%	28.3%	38.4%
2014	75,790,988	46,045,518	-2.2%	671,076,844	6.8%	6.9%	75,704,295	19,936,477	10.4%	27.8%	43.3%
2015	61,654,166	51,224,317	11.2%	659,137,000	-1.8%	7.8%	65,978,035	22,098,512	10.8%	29.2%	43.1%
2016	50,685,309	46,228,984	-9.8%	638,095,000	-3.2%	7.2%	60,832,044	33,426,454	51.3%	50.7%	72.3%
2017	62,274,062	50,194,045	8.6%	623,856,000	-2.2%	8.0%	67,965,549	33,637,141	0.6%	55.3%	67.0%

**Source:** Elaborated by the authors based on data from the Rio de Janeiro transparency portal, Ceperj and Bacen (2017). Nominal values.

**Legend:**

\* Calculated variation between the current year and the previous year

\*\* Values in R\$ 1,000.00

TR = Total revenues

NR = Net revenues

TE = Total expenses

PE = Personnel expenses

GDP = Gross domestic product

The NR represents, on average, 8% of state GDP per year. The periods of growth and deceleration of NR coincided with the behavior of state GDP, signaling the difficulty that federal entities experience in forecasting revenues during times of economic recession.

Even though there was difficulty in constructing adequate expectations of NR given the uncertainties of state GDP, the FRL established that the execution of these programmed expenses should be consistent with the revenues collected and that the insertion of any increase in expenses be accompanied by its budgetary counterpart (Brazil, 2000).

The average growth of NR from 2001 to 2017 was 8.9%, while total expenses and personnel expenses grew on average 9% and 12.1% per year respectively. This, in turn, already indicates the discrepancy between public revenues and spending. It should be noted that due to natural population, personnel spending in the SRJ grew in a continual manner, especially the incremental values determined by law for civil servants in terms of periodic raises, salary adjustments and year-end bonuses beginning in 2014.

The relationship between personnel expenses and NR displayed a tendency to grow beginning in 2011, but remained within acceptable levels until the end of 2015 (below 54% of NR). However, the PE/NR index reached 72.3% and 67% in 2016 and 2017 respectively, exhibiting growth above the historical average and exceeding the maximum legal limit of 60% as determined by the FRL.

In addition, comparing the accumulated values between 2001 and 2017, while NR grew 268.8%, PE grew 461.12%, which reinforces the effect of the denominator (the fall in NR) on the PE/NR index, as well as this public entity's lack of control in terms of personnel expenses, especially during a time of deep economic recession.

Santos (2015) also emphasizes that the states have not properly interpreted Article 19 §1 of the FRL, which determines the exclusion of inactive employees and pensioners in terms of the associated resources. In the case of the SRJ, the author finds that 28.5% of the corresponding expenses of the NR are not computed, and if summed with the 43.2% of the expense considered and published by the state government, this yields a value of 71.7% for 2014, thus already exceeding the limit permitted by the FRL and harming debt service payments and the making of investments, as effectively occurred beginning in 2015.

#### **4.2 CONSOLIDATED NET DEBT, MACROECONOMIC FACTORS AND THE SUSTAINABILITY OF STATE DEBT**

The instrument to control the limits of public debt established by the FRL considers that the value of the consolidated net debt (CND), which is defined as the consolidated public debt minus available cash, financial applications and other financial obligations, can be at most twice the value of NR and should be verified every quarter (Brazil, 2001). If the public administration exceeds these limits, the FRL imposes sanctions such as the inability of the state to take out loans (credit operations) or receive voluntary transfers (Brazil, 2000).

It may be observed in table 2 that, despite the growth of the SRJ's debt, the CND/NR ratio decreased from 2001 to 2013, due to the elevated NR, the devaluation of the real versus the US dollar, and the decline in the adjustment indices for outstanding public debt. However, we can see that the legal limit permitted by the FRL was exceeded with values for these indices reaching 233.84% and 269.74% of NR in 2016 and 2017 respectively, and these were provoked by the reduction in the NR, consecutive primary deficits and increases in the CND.



**TABLE 2** PROGRESSION OF THE CND, CND/NR, CREDIT OPERATIONS, AMORTIZATION, INTEREST AND CHARGES FROM 2001 TO 2017 FOR THE STATE OF RIO DE JANEIRO

Year	NR	CND	%CND*	CND/NR	CO	Amort	Int & Chg	AIC/NR
2001	13,608,848	25,840,552	–	190%	328,558	387,367	1,188,098	11.58%
2002	15,100,326	35,449,514	37,2%	235%	420,814	508,943	1,489,941	13.24%
2003	19,168,781	38,957,303	9,9%	203%	189,331	472,653	1,804,216	11.88%
2004	21,009,274	42,929,196	10,2%	204%	260,894	849,983	1,673,602	12.01%
2005	23,094,091	43,901,530	2,3%	190%	280,750	712,696	1,997,551	11.74%
2006	26,132,742	45,072,844	2,7%	172%	352,734	728,646	2,167,339	11.08%
2007	26,849,822	46,575,259	3,3%	173%	163,674	840,568	2,373,213	11.97%
2008	31,830,883	51,041,606	9,6%	160%	175,610	883,068	2,511,144	10.66%
2009	28,976,688	47,204,512	-7,5%	163%	274,809	1,222,952	2,293,140	12.13%
2010	34,534,906	53,952,732	14,3%	156%	1,295,237	1,227,768	2,334,211	10.31%
2011	39,268,345	57,378,214	6,3%	146%	1,271,501	1,630,549	2,469,236	10.44%
2012	40,613,415	67,094,118	16,9%	165%	4,755,173	2,225,819	2,633,461	11.96%
2013	47,064,197	72,380,974	7,9%	154%	5,030,290	2,832,809	2,931,170	12.25%
2014	46,045,518	82,054,789	13,4%	178%	4,879,411	3,449,712	3,232,685	14.51%
2015	51,224,317	101,175,146	23,3%	198%	4,994,873	3,450,713	3,834,759	14.22%
2016	46,228,984	108,103,232	6,8%	234%	1,047,452	1,986,946	2,729,723	10.20%
2017	50,194,045	135,393,365	25,2%	270%	2,313,611	700,424	1,108,368	3.60%

**Source:** Elaborated by the authors based on data from Ceperj and Bacen (2017).

**Legend:**

\* Calculated variation between the current year and the previous year

\*\* Values in R\$ 1,000.00

NR = Net revenues

CND = Consolidated net debt

CO = Credit operations

Amort = Values paid for the amortization of public debt

Int. and Chg = Values paid for debt interest and charges

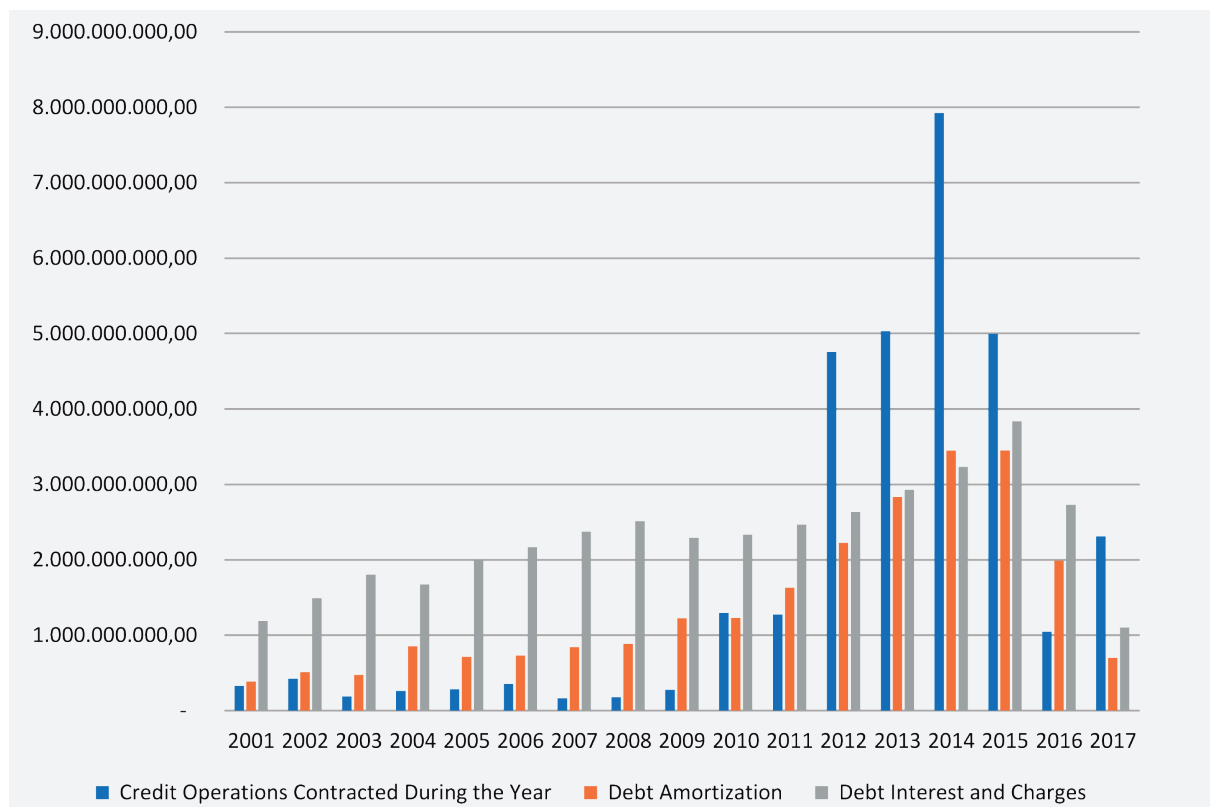
AIC/NR = Ratio of values paid for amortization, interest and charges, over the state's net revenues

Concomitant with the growth of the CND/NR index, the cost of servicing the debt, represented by the values paid for the amortization, interest, and charges related to the state public debt as well as credit operations also displayed a growing trend during the period from 2009 to 2015. Senate Resolution N<sup>o</sup> 43/2001 declares that the annual debt service cost, including values for current and future credit operations, should not exceed 11.5% of NR.

It may be noted that the debt service amounted to 11.4% of NR on average from 2001 to 2017, and exceeded the limits permitted by the legislation from 2012 to 2016. Even so, the SRJ continued realizing credit operations paying R\$ 42,294,445,000.00 for amortization, interest and charges from 2009 to 2017, 105.42% above the sum paid from 2001 to 2008.

The increase in debt service costs was due to state debt which grew massively due to an increase in credit operations and the non-payment of the full total of the state’s obligations, especially after 2012 (graph 1). Thus, the remainder of the payments added to the balance of the debt, including charges for interest and inflation adjustments, and made it impossible to reduce the debt, which further aggravated the financial sustainability of the SRJ.

**GRAPH 1 CREDIT OPERATIONS AND DEBT SERVICING FOR THE STATE OF RIO DE JANEIRO FROM 2001 TO 2017**



Source: Bacen (2017).

The analysis of the sustainability of public debt, considering the primary balance, the CND/GDP ratio, real GDP growth and real interest rates, has been a topic of discussion in various articles and has been used to accompany the fiscal sustainability of governments (Almeida and Salto, 2016; Greiner and Fincke, 2015; Burger and Marinkov, 2012).

In the SRJ, the CND/GDP ratio decreased until 2011, and grew during the period from 2012 to 2017, especially during the period in which the size of the state’s debt went out of control beginning



in 2015, and the generation of successive primary deficits beginning in 2012, which affected the government's ability to pay for the servicing of the debt and, as a result, the sustainability of the trajectory observed up until 2011 (table 3).

**TABLE 3** TRAJECTORY OF THE CND, GDP, CND/GDP, PRIMARY BALANCE AND REAL INTEREST RATES FROM 2001 TO 2017 FOR THE STATE OF RIO DE JANEIRO

Year	CND	GDP	% Growth				SR	I	Real Rate**
			GDP	CND/GDP	PB	PB/GDP			
2001	25,840,552	148,033,000	–	17%	1,034,996	0.70%	17.32%	7.67%	8.96%
2002	35,449,514	184,311,000	25%	19%	255,808	0.14%	19.16%	12.53%	5.89%
2003	38,957,303	202,641,000	10%	19%	1,860,847	0.92%	23.33%	9.30%	12.84%
2004	42,929,196	241,207,000	19%	18%	2,204,017	0.91%	16.24%	7.60%	8.03%
2005	43,901,530	269,830,061	12%	16%	1,971,289	0.73%	19.04%	5.69%	12.63%
2006	45,072,844	299,738,183	11%	15%	1,891,735	0.63%	15.08%	3.14%	11.58%
2007	46,575,259	323,698,286	8%	14%	3,491,927	1.08%	11.85%	4.45%	7.08%
2008	51,041,606	378,285,800	17%	13%	4,923,231	1.30%	12.48%	5.90%	6.21%
2009	47,204,512	391,650,854	4%	12%	1,446,492	0.37%	9.92%	4.31%	5.38%
2010	53,952,732	449,858,101	15%	12%	1,758,668	0.39%	9.78%	5.90%	3.67%
2011	57,378,214	512,767,905	14%	11%	2,857,175	0.56%	11.62%	6.50%	4.80%
2012	67,094,118	574,884,973	12%	12%	-552,238	-0.10%	8.48%	5.83%	2.51%
2013	72,380,974	628,226,069	9%	12%	-4,095,654	-0.65%	8.21%	5.91%	2.17%
2014	82,054,789	671,076,844	7%	12%	-6,974,179	-1.04%	10.91%	6.41%	4.23%
2015	101,175,146	659,137,000	-2%	15%	-3,957,621	-0.60%	13.29%	10.67%	2.36%
2016	108,103,232	638,095,000	-3%	17%	-6,324,635	-0.99%	14.03%	6.29%	7.28%
2017	135,393,365	623,856,000	-2%	22%	-6,204,629	-0.99%	9.96%	2.21%	7.58%

**Source:** Elaborated by the authors based on data from Ceperj and Bacen (2017). Nominal values in R\$ 1,000.00.

**Legend:**

CND = Consolidated net debt

GDP = Gross domestic product

SR = Selic rate

I = Inflation as measured by the IPCA

PB = Primary balance

PB/GDP = Primary balance divided by GDP

\*\*Real Rate =  $(1 + \text{Selic rate}) / (1 + \text{Inflation})$

We can also perceive that the intertemporal sustainability of the state debt has been aggravated by the readjustments to the internal financing with the federal government and its external financing in US dollars, as well as the decrease in NR due to the country's internal crisis. The unsustainability of the SRJ's debt was pointed out by the SAT (2017) due to the unsustainable growth of CND from 2008 to 2017, the application of long-term resources raised by credit operations for short-term projects that fall outside of those which are legally authorized, and a lack of dissemination of the facts involving the real situation of the state's debt.

It may be observed that the deterioration of the SRJ's fiscal management is recognized by Law N<sup>o</sup> 7,483 of November 8, 2016 which declared a state of disaster in regard to the financial administration of the state until December 2017, followed in January 2017 by the reaching of an agreement with the federal government to implement a fiscal recovery plan for 2017 to 2019 (TCE-RJ, 2017).

We would like to emphasize that Law N<sup>o</sup> 7,483 suspended the timeframe for adjustments that fulfill the limits established by the FRL and the federal government agreed to suspend state debt payments for three periods, without prohibiting the state from obtaining new loans.

From this point of view, it should be remembered that the FRL establishes clear norms for state fiscal responsibility and envisions sanctions and punishments for the government administrator when the imposed limits are exceeded, and the countless exclusions made by these managers, the constant charges imposed by the federal government on this state debt, the lack of condemnation of the managers involved, and the absence of the creation of a law that would create a fiscal board as prescribed in Article 67 of the FRL, all weakened the adequate fulfillment of the law, and the disciplinary role of the FRL in terms of state fiscal management.

## 5. FINAL CONSIDERATIONS

This work analyzes the dynamics of the SRJ's fiscal management during the period from 2001 to 2017 from the point of view of the parameters established by the FRL and the influence of the primary balance and macroeconomic factors on the sustainability of the trajectory of state public debt.

It may be observed that the limits permitted by the legislation in relation to the PE/NR, CND/NR, and debt service ratios were all exceeded, and this together with a decrease in GDP, an increase in interest rates and continuous primary deficits beginning in 2012 revealed the fiscal instability of the SRJ and led to a severe fiscal crisis in 2017.

We conclude that even though the FRL performed a disciplinary role on the management of the SRJ's finances until the middle of 2012, this legislation did not limit the poor management of resources and was not sufficient to avoid the fiscal unsustainability that affected the state beginning in 2014.

In terms of future study, we would suggest the development of theoretical-empirical models that can identify the determinants of public fiscal sustainability and that consider various combinations of endogenous and exogenous factors in the management of public finances in order to arrive at a definition of a great trajectory for public debt.

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