
ACCOUNTABILITY DEFICITS: A STUDY ON THE UNBINDING OF UNION REVENUES IN BRAZIL FROM AN ACCOUNTING THEORY PERSPECTIVE

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▪ Received: 04/11/2021 ▪ Approved: 10/03/2022 ▪▪ Second Approved Version: 12/15/2022

ABSTRACT

The research aimed to identify accountability practices to describe the accountability deficit in the behavior of the Unbinding of Union Revenues (UUR) from the perspective of Accounting Theory. This is an explanatory, descriptive, qualitative and quantitative study, public inquiry, content analysis, data survey and statistical testing by quasi-experiment using regression with interrupted time series, comprising January 1994 to March 2019. The results revealed the absence of identification for a specific account in the public revenue inventory, for detailed accounting information, and for evidencing it in the financial and fiscal statements, making it impossible to verify the management of UUR's free resources in Brazil, demonstrating accountability deficit practices that corroborate with international literature. On average, the UUR represented approximately 4% of the Brazilian Gross Domestic Product (GDP), showing a growth in the Union's levying centered on the expansion of contribution revenue and the retraction of tax revenues, and a tax relief policy with direct consequences on the distribution of resources with subnational entities. The quasi-experiment also allowed us to infer that there was no increase in the new UUR regarding the GDP, even with the change to the calculation basis and the percentage. Thus, from an Accounting Theory perspective, it can be observed that flaws in transparency, control and implicit aspects of the UUR system hinder its traceability and raise questions about the distribution of resources among the federated entities, generating negative

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externalities and evidencing instances of accountability deficits in the Brazilian UUR mechanism.

Keywords: Accountability deficits. Accounting Theory. Unbinding of Union Revenues (UUR).

DÉFICIT DE ACCOUNTABILITY: UM ESTUDO NA DESVINCULAÇÃO DE RECEITAS DA UNIÃO NO BRASIL NA PERSPECTIVA DA TEORIA DA CONTABILIDADE

RESUMO

A pesquisa objetivou identificar práticas de *accountability* para descrever o déficit de *accountability* no comportamento da Desvinculação de Receitas da União (DRU) na perspectiva da Teoria da Contabilidade. Trata-se de um estudo explicativo, descritivo, de natureza qualitativa e quantitativa, consulta pública, análise de conteúdo, levantamento de dados e testes estatísticos por meio de quase-experimento utilizando regressão com série temporal interrompida, compreendendo de janeiro de 1994 até março de 2019. Os resultados revelaram a ausência de identificação de uma conta específica no ementário da receita pública, de informações contábeis detalhadas e de evidenciação nas demonstrações contábeis e nos demonstrativos fiscais, impossibilitando a verificação da gestão dos recursos livres da DRU no Brasil, demonstrando práticas de déficit de *accountability* que corroboram com a literatura internacional. Na média, a DRU representou, aproximadamente, 4% do Produto Interno Bruto (PIB) brasileiro, evidenciou um crescimento da arrecadação da União centrado na expansão das receitas de contribuições e na retração das receitas de impostos, e uma política desonerativa com reflexos diretos na repartição de recursos com os entes subnacionais. O quase-experimento permitiu inferir que não houve aumento da nova DRU em relação ao PIB, mesmo com a mudança da base de cálculo e do percentual. Assim, pode-se observar à luz da Teoria da Contabilidade, que fragilidades de transparência, controle e aspectos implícitos do sistema da DRU, dificultam sua rastreabilidade e mantêm questionamentos sobre a repartição dos recursos entre os entes federados, gerando externalidades negativas e evidenciando práticas de déficit de *accountability* no mecanismo da DRU no Brasil.

Palavras-Chave: Déficit de *accountability*. Teoria da Contabilidade. Desvinculação de receitas da União (DRU).

1 INTRODUÇÃO

Over the years, the search for the most efficient allocation of scarce resources has increasingly demanded governments to improve the welfare of society, by applying their revenue into providing essential goods and services, while ensuring that it will be accountable with transparency and responsibility for acts and facts, ensuring accountability practices.

However, with each new scandal involving corruption, fraud, and embezzlement of government resources, there are new demands for increased disclosure, controls, and penalties, renewing the challenge to analyze whether accountability practices are appropriate, under what circumstances, and for what purposes.

In this sense, accountability processes are fundamental, as instruments to maintain the order of management control, focusing on supervision, monitoring and evaluation of performance, aiming to increase efficiency, eliminate waste, minimize fraud and abuse of power (Olsen, 2018).

In contrast, Mulgan (2014) points to accountability deficit as the idea of absence of control, observable lack of quality, which almost always carries implications of disapproval and, still, is embedded in the international research agenda, given the existing gap and the pressing need to mitigate the extent of identifiable deficits.

Thus, the perception of an accountability deficit is increased when institutionalized accountability practices do not work or are not fully understood, generating mistrust, contradictory or unrealistic expectations and aspirations, as well as arbitrary use of powers (Bovens, Curtin & Hart, 2010; Olsen, 2018).

These factors favor the discussions that permeate the Unbinding of Union Revenues (DRU), a mechanism used by the Brazilian Federal Government since 1994 to increase the allocative power of resources, which has been implemented by successive constitutional amendments, in an attempt to increase budget flexibility and reduce the effect of existing ties, especially in relation to taxes and contributions, expanding the volume of free resources.

The last extension of the DRU was in 2016, and lasted until 2023, with a relevant change when it increased its percentage from 20% to 30%, changing its calculation basis, which now includes revenues from social security and taxes, being the revenues from contributions of greater representativeness within the current revenues collected, and extending its application to states and municipalities.

Studies on the DRU point to the need to discuss, in a broad way, its aspects and the need to maintain it, since it is a mechanism that does not even have a purpose mentioned in its instituting legal norm (Scaff, 2004; Moura & Tavares, 2011; Pinheiro & Mello, 2014).

These aspects allow for addressing theoretical and practical questions, which require interconnections for a deeper approach. Thus, it was sought grounding through the Accounting Theory perspective, due to the DRU lacking evidencing accounting records, compromising transparency and accountability, thus offering an opportunity for research. Concerning the accounting science perspective, let us recall the claims of Hendriksen & Van Breda (1999, p. 79), which affirms that to "facilitate social functions and controls, that is, to facilitate the operations of organized society for the welfare of all" is one of the presumed purposes of accounting.

Given the above, we find a favorable scenario to investigate the accountability deficit, by noticing weaknesses and/or absences of accountability processes, which can evidence the forms, decisions and directions in relation to the DRU, having as problematic: How to evidence accountability deficit practices

in the DRU mechanism in Brazil? The central objective of the study is to identify accountability practices in order to describe the accountability deficit in the DRU's behavior from the perspective of Accounting Theory.

Thus, we work with the justified guiding hypothesis: H_i: There is evidence of an accountability deficit in the DRU in light of the Accounting Theory. By considering that: (i) according to Bovens, Curtin and Hart (2010) government activities protected by consensus among political parties, combined with media disinterest, are subject to significant accountability deficits; (ii) Dubnick and Frederickson (2010), Mulgan (2014), Bovens and Schillemans (2014), point out the accountability deficit as a challenge of public administration; (iii) Brazil, as of 1988, seeks for a standard of quality in the accounting information to be evidenced, as a way to meet the decision makers and citizens in the public sector (Barnard, 2001; Filgueiras, 2011; Franco, Rezende, Figueiredo, & Nascimento, 2014); and, iv) due to a budget rigidity that limits the government's allocative power, the DRU mechanism is used to expand the budget flexibility and expand the volume of free resources.

By achieving the answer to the research problem, deepen the discussion that involves the theme, foster the research field in the accounting area, specifically, in the public sector, this research has its relevance. In turn, it is justified, mainly, by the need to promote a research gap inserted in the international agenda according to Mulgan (2014). And, it is expected, with the results obtained, to contribute to the academy, to the government and to society, encouraging and directing future studies.

This article is structured as follows: this introduction, the theoretical framework in Section 2, the methodological procedures in Section 3, the results in Section 4, and the final considerations in Section 5.

2 THEORETICAL BACKGROUND

2.1 Accountability Deficit from an Accounting Theory Perspective

Accountability, as a heuristic device, helps researchers analyze complex realities and locate possible deficits, deriving either from lack of information, of appropriate discussion, or inability to correct (Brandsma & Schillemans, 2012).

Society's growing demands for accountability, as a democratic phenomenon that calls its agents to be accountable, seek explanations, justifications, and sanctions that must be analyzed from cognitive, normative, and authority-power perspectives. In cases of incompetence, corruption, and misuse of power, the problem is seen as a result of the absence of control over the actors who have the resources necessary to perform tasks, follow the rules, and achieve the goals for which they are responsible (Olsen, 2018), this being a characteristic of accountability deficit.

In this scenario, the monitoring and participation of society in defining the allocation of resources for social policies are very relevant, so that they are not at the mercy of clientelistic interests and(or) electoral "corrals" (Correia, 2005). "The greater the centralization of power and the more freedom of action an institution or actor has, the more important it is to hold it accountable" (Olsen, 2018, p. 60).

In Brazil, a true culture of accountability is still far from being built. We point out that with the 1988 Federal Constitution, expressions such as democracy, popular participation, social control and accountability became jargons that legitimize public actions, albeit without practical application and with a society yearning for information (Slomski, 2009; Pinho & Sacramento, 2009; Matias-Pereira, 2010; Medeiros, Crantschaninov, & Silva, 2013).

From a theoretical point of view, discussing the accountability deficit, through the Accounting Theory, starts from what Ijiri says in his 1975 study: (i) that bookkeeping has the power to force people to compare what happened to what they thought happened; (ii) that accountability is a function of Accounting with a simple view of providing quantitative information for economic decision making; and, (iii) accountability is the underlying object of Accounting, not limited to past performance, but also applicable to planning, budgeting and forecasting.

According to Bovens (2006) accountability is a word of Anglo-Norman origin, which historically and semantically is closely related to accounting.

From the Accounting Theory perspective, accountability begins with the double-entry bookkeeping of activities and transactions and ends with the information and communications generated by Accounting (Nakagawa, Sordi Relvas, & Maria Dias Filho, 2008).

For Ludícibus (2013) concepts that date back to the antiquity of accounting lead to the vision of stewardship/accountability and materialize through successive accounting and reporting following the double-entry system.

In this context, Sunder (2014) states that accounting, as an accountability system, should work effectively in an environment not only of imperfect information, but also of incomplete information. Moreover, he also points out that in the work of Ijiri (1975) he saw accounting as a system to facilitate the smooth functioning of the accountability relationship between stakeholders.

By inserting the lens of accounting theory, Bovens, Goodin & Schillemans (2014) proffer that the term accountability in the public sector can be viewed from the focus of accessible information, matters of public interest, and, furthermore, reporting perspectives and accounting standards, implying the ability to account for matters in the public domain.

For Merkl-Davies and Brennan (2017), both writing in Accounting Theory and Accountability, there is contribution of insights regarding the phenomenon of accounting communication for the development of research in the area, where it is mainly seen as the transmission of financial, environmental and social information to external audiences.

In this context, Lopes de Sá (2017) highlights that it is necessary to know what to do with the information obtained, i.e., it is necessary to understand what it means, what happened with the equity wealth, and what is evidenced in the accounting statements. Such level of understanding and interpretation of accounting phenomena should permeate the organizational culture, the common individual, and the users of accounting.

In turn, Ludícibus, Niyama, Oliveira & Beuren (2020) point out that in Accounting Theory, the accounting principles converge and are aligned with the philosophical assumptions of ethics, morality and the search for truth.

Thus, being the accountability deficit understood as absence of control, observable lack or quality deficiency, which almost always brings implications of disapproval by society (Mulgan, 2014), through the lens of Accounting Theory it is possible to realize that the exercise of power by certain actors, withholding information, promoting them selectively and/or manipulated, compromises the credibility of disclosures and corroborates this undesirable scenario.

Given the above, these aspects corroborate a favorable scenario to investigate the accountability deficit, by noticing weaknesses and/or absences of accountability processes, which can show the forms, decisions, and directions in relation to the DRU from an accounting theory perspective.

2.2 Unbinding of Federal Revenues (DRU) in Brazil

From a historical perspective, when the Real Plan was implemented in 1994, the Social Emergency Fund (ESF) was created as a possibility of improving public accounts, while the intended constitutional reforms were not implemented. Since then, this instrument was extended, underwent later changes, changed its name to Fiscal Stabilization Fund (FEF), and, in 2000, was named Unbinding of Union Revenues (DRU), as shown in Picture 1.

DRU	Legal provision	Validity	Basis of calculation
FSE	ECR n. 1/1994	1994 and 1995	20% of the proceeds from the collection of taxes and contributions from the Union, except as provided in items I, II, and III.
FEF	EC n. 10/1996	1996 and 1st semester of 1997	20% of the proceeds of the collection of taxes and contributions of the Union, already created or to be created, except as provided in items I, II, and III, with due regard for the provisions in §§ 3 and 4.
	EC n. 17/1997	From the 2nd semester of 1997 to 1999	
DRU	EC n. 27/2000	from 2000 to 2003	20% of the collection of taxes and social contributions of the Federal Government, already created or to be created in the mentioned period, and their respective legal additions.
	EC n. 42/2003	from 2003 to 2007	20% of the federal government's collection of taxes, social contributions, and intervention in the economic domain, already created or to be created during the period, and their respective additional taxes and legal increases.
	EC n. 56/2007	from 2008 to 2011	
	EC n. 68/2011	from 2011 to 2015	
	EC n. 93/2016	from 2016 to 2023	30% of the federal collection on social contributions, without prejudice to the payment of expenses of the General Social Security System, contributions for intervention in the economic domain (CIDE) and taxes, already created or to be created by that date.

Picture 1 - DRU Chronology.

Source: Prepared by the authors.

According to the Federal Accounting Court (TCU), when analyzing the Government's accounts, it became evident that the Social Emergency Fund, instituted by the Constitutional Amendment of Revision (ECR) no. 1, on March 1st,

1994, added articles 71, 72 and 73 to the Transitory Constitutional Dispositions Act, with the objective of financial restructuring of the Federal Treasury and economic stabilization in the 1994 and 1995 fiscal years. The resources disconnected for the ESF would be applied in the costing of actions of the health and education systems, social security benefits, welfare assistance of continued provision, including settlement of social security liabilities, and other programs of relevant economic and social interest (TCU, 1995).

Next, according to the TCU (1996), the resources of the FEF were accounted for in "collection by source of resources", in the managing unit of the National Treasury Secretariat (STN), and, in terms of budget execution, shown in the body of the Report by function, program, superior organ and expenditure group.

With the publication of Constitutional Amendment no. 17, of November 22, 1997, the FEF had its validity extended until the end of the fiscal year 1999. For the TCU (1997), this amendment also increased the amount of transfers from the Union to the municipalities, as of the second half of 1997, by adding 1.56% of the collection of the Tax on Income and Earnings of Any Nature. The TCU pointed out that the resources used by the FEF were concentrated, essentially, in current expenses, mainly personnel and social security charges, accounting for 73.21% of expenses, which goes against the objective of the budgetary unbinding, implicit in the fund.

On March 21, 2000, Constitutional Amendment no. 27 instituted the DRU, effective until 2003, whose resources were classified as ordinary resources (source 100), with no separate execution, which prevents the monitoring of specific budget execution (TCU, 2000), extended by EC no. 42/2003 and EC no. 56/2007.

The DRU of EC no. 68/2011, in effect until 2015, authorized the Federal Government to use 20% of the resources from taxes and contributions in programs and expenses it considered a priority. As the revenues linked to the budget sphere of Social Security were not properly identified, this ended up compromising the calculation of its funding sources and the comparison with the respective expenses (TCU, 2011).

After undergoing successive extensions, EC No. 93, dated September 8, 2016, increased the effectiveness of the DRU to December 31, 2023, increased from 20% to 30% the percentage of federal tax revenues that can be used freely, and changed the basis for calculating which taxes can be untied.

Considering this exposition, when analyzing the format of the mechanism to minimize budget rigidity, it can be observed that, since 1994, when it was created, until the form that remains in effect, its action characteristics were maintained, with changes only in relation to the sources of revenue that make up its calculation basis and the percentage.

A large part of the resources untied by the DRU and freely employed in the fiscal budget finance various types of expenses, including interest and amortization of the public debt (Gentil, 2006). According to Boschetti and Salvador (2006), the DRU has historically played the role of a perverse "alchemy" that turns resources intended for financing social security into fiscal resources for the composition of the primary surplus and, consequently, uses them to pay interest on the debt. Dias (2011) points out that the DRU's main role is to assist in achieving the fiscal surplus target.

If, on the one hand, the DRU provided the return of part of the budget flexibility that public managers had, on the other hand, it reduced the calculation basis used in the calculation of some budget bindings, established by the constituent legislature (Suzart, 2015). Therefore, due to the change in the calculation basis of the DRU, in line with EC no. 93/2016, new debates occurred regarding its effect on social security.

3 METHODOLOGY

This study followed the practical quadripolar model of Bruyne, Herman and Schoutheete (1982), going through in the epistemological pole (relevance requirement) a separation between scientific knowledge and common sense, with the justified guiding hypothesis: H_i : There is evidence of accountability deficit in the DRU in light of Accounting Theory. In the theoretical pole (conceptualization requirement) Accounting Theory was used as a lens on accountability and accountability deficit. In the morphological pole (consistency requirement), the empirical-positivist approach was used to identify accountability practices and describe the accountability deficit in DRU behavior. And, in the technical pole (empirical verification requirement), in the qualitative analysis a public consultation was carried out with content analysis, in the quantitative analysis there was a data survey, with descriptive analysis, explanatory and statistical tests, adopting the mixed method, according to Modell (2010), Lukka (2010), Parker (2012) and Creswell and Plano Clark (2013).

The public consultation was carried out through the Contact Us communication channel of the STN electronic portal, available at <<http://www.tesouro.fazenda.gov.br>>, sent to the General Coordination of Accounting Standards Applied to the Federation (CCONF), containing the following topics: changes in Accounting Applied to the Public Sector, with new PCASP and DCASP; identification of how the DRU resources are effectively accounted for by the government systems; existence of an account in PCASP to show the DRU; difficulties in extracting information about the DRU in SIAFI, in the Managerial Treasury and(or) in the Transparency Portal; and, internal regulation and operationalization of the DRU.

Based on the answers, a content analysis was performed in order to directly identify the accountability practices of the DRU mechanism. In addition, the TCU audit reports on the Annual Financial Statements of the Federal Government for the fiscal years 1995, 1996, 1997, 2000, 2007, 2009 and 2011 that presented observations on the subject were consulted in order to verify findings on the DRU.

To survey and collect quantitative data on the DRU, it was first necessary to identify its absolute values, calculated in accordance with the percentages and bases established by Constitutional Amendments since 1994, i.e., the revenues earned by the Federal Government from Taxes, Fees, Social Contributions and Intervention Contributions in the Economic Domain (CIDE), which make up the DRU's calculation bases, as shown in Figure 1, identified through the STN's official website on the historical series link. The total monthly Brazilian Gross Domestic Product (GDP), in Reais (R\$), was obtained through the historical series made available by the Central Bank of Brazil. The data collected were tabulated in Microsoft Excel® spreadsheets and the statistical tests were performed in Stata®.

The research comprised a longitudinal period, with monthly data from January 1994 until March 2019, because it was the last month of available data when the research was conducted, making 303 months or observations, corresponding to the entire space of time, from when the DRU mechanism emerged as the Social Emergency Fund, in 1994, until the moment of development of this research, and this is the sample. Then, the series for analyzing the DRU were created, as shown in Figure 2:

SERIES	DESCRIPTION AND CALCULATION BASIS
<i>trib_raw</i>	It corresponds to the values of tax revenues collected by the Brazilian federal government, base calculation until 2015, without taking into account inflationary effects.
<i>cont_raw</i>	Corresponds to the amounts of contribution revenues collected by the Brazilian federal government, calculation basis as of 2016, without taking into account inflationary effects.
<i>trib_defla</i>	Corresponds to the values of tax revenues collected by the Brazilian federal government, base calculation until 2015, deflated by the IPCA.
<i>cont_defla</i>	Corresponds to the amounts of contribution revenues collected by the Brazilian federal government, calculation basis as of 2016, deflated by the IPCA.
<i>dru</i>	Corresponds to the monthly values of the DRU estimated based on the constitutional amendments presented in Figure 1.
<i>pib</i>	Corresponds to the total monthly GDP values.
<i>trib_defla_pib</i>	Corresponds to the percentage of tax revenues collected by the Brazilian federal government, base calculation until 2015, deflated (IPCA), in relation to the Brazilian monthly GDP.
<i>cont_defla_pib</i>	Corresponds to the percentage of the values of contribution revenues collected by the Brazilian federal government, calculation basis as of 2016, deflated (IPCA), in relation to the monthly Brazilian GDP.
<i>dru_pib</i>	It corresponds to the percentage of the DRU estimated based on the constitutional amendments presented in Figure 1 in relation to the monthly Brazilian GDP.

Picture 2 - Series for DRU analysis.
Source: Prepared by the authors.

In the sequence, the design was characterized as a quasi-experiment, a trend that has been identified by accounting research scholars (Frezatti, Aguiar, Wanderley, & Malagueño, 2015; Costa & Martins, 2016; Homero Jr., 2016; Aguiar, 2017), due to the possibility of providing useful descriptive data, of being conducted with the entire population of interest to the researcher, of dealing with long periods of time and, also, for being important for the production of applied knowledge (Schnelle & Lee, 1974; Campbell & Stanley, 1979; Kunkel, 1985; Kidder, 1987; Shadish, Cook, & Campbell, 2002; Leary, 2012).

For the analytical-statistical treatment, it was necessary, initially, to deflate the variables corresponding to monetary values, by the Broad Consumer Price Index (IPCA) of March 2019, measured monthly by the Brazilian Institute of Geography and Statistics (IBGE), removing the effects of the price variation of all monetary values for the constant currency in force in the period of the research, providing the proper comparison of different years in the same currency.

The econometric technique applied was the interrupted time series (ITS), which, according to Lagarde (2012), controls the secular trends of the series, allows the control of outliers and can be adjusted in case of existence of serial correlation

in the data. According to the recommendations expressed in Lagarde (2012) and in Linden & Arbor (2015), the following model was estimated from Equation 1:

$$\left(\frac{DRU}{PIB}\right)_t = \beta_0 + \beta_1(NOVA_DRU) + \beta_2(POS_DRU) + \beta_3(TEMPO) + \beta_4(SAZO) + \epsilon_t \quad (1),$$

where, in each month t of the time series, $\left(\frac{DRU}{PIB}\right)$ is the maximum ratio of the Union's revenue to GDP; $NOVA_DRU$ is a dummy variable, which indicates the DRU period before and after EC no. 93/2016 (in this case, from January 2016 to March 2019). Such variable assumes value of (1) in later periods and value of (0) in periods prior to the DRU of 2016. POS_DRU represents the trend of the untying series after the new DRU. The variable is coded with 0 up to the last point before the intervention (DRU of 2016) and coded, sequentially, from 1. $TEMPO$ is a continuous variable, indicating the period of monthly observations, which runs from January 1994 to March 2019. $SAZO$ is a dummy variable added in every January of each year to consider the seasonality of the series. Finally, ϵ_t is the error term of the regression.

In Equation 1, β_0 captures the levels of DRU/PIB average at the beginning of the series, where $t=0$. β_1 estimates the immediate impact of the new DRU, or the change of level, on the result after the intervention. β_2 reflects the change in trend after the intervention. β_3 estimates the structural trend, or growth rate, in the ratio DRU/PIB , regardless of the implementation of the new DRU of 2016. Finally, β_4 controls the seasonality that exists in the January months of each year, and has no practical interpretative effect. The coefficients β_n will be estimated by ordinary least squares (OLS), but one of its assumptions is that the error terms (ϵ_t) are not autocorrelated. Violating this assumption produces biased standard errors and incorrect results about the statistical significance of the coefficients.

To avoid such a result, the two recommendations of Linden & Arbor (2015) for MQO autocorrelation correction were followed: (1) Newey-West (1987) standard errors were adopted to deal with autocorrelation. This procedure is common in time series research (Wooldridge, 2016); (2) as robustness, standard errors were adopted, according to Prais-Winsten (1954), in which errors are assumed to follow an AR(1) process, that is, there is correlation between the errors of each observation period t and those of the previous observation period $t-1$. In advance, the results remain qualitatively unchanged.

From this scope of research, we warn and highlight as limitations, the real possibilities that this analysis must consider, given the data involved and necessary for the interventions carried out, since the DRU is not available and easy to reach, and may generate divergences if used or mapped in circumstances not considered in this research.

It is necessary to follow to the letter the entire path taken to reach your measurement basis. Subsequently, the measures used for its treatment may also undergo changes depending on the time window used for measurement, as well as whether the historical value or the deflated value will be used, which deflation rate will be used, without ignoring the changes in its calculation base with each new legal extension of the DRU, which make a single parameterization for a longitudinal series impossible.

Thus, the results and conclusions are restricted to the cutout of the analysis scenario of this study. And, despite this, it can be considered that the results

achieved are robust, given the consistency of the procedures adopted, the methodological rigor applied and the theoretical basis corroborating the scientificity of this empirical research.

4 RESULT PRESENTATION AND DISCUSSION

4.1 Accountability practices and accountability deficit in the DRU

In order to identify accountability practices and describe the accountability deficit in the DRU's behavior, the answers that the General Coordination of Accounting Standards Applied to the Federation [CCONF] presented were analyzed, as can be seen in Figure 3. The results obtained consist of the narrative topic design perspective, as it is focused on a theme, an event or phenomenon (Mertens, 2005; Sampieri, Collado & Lucio, 2013).

QUERIES/ ANSWERS																															
<p>Query: Given the changes in the Accounting Applied to the Public Sector, with the new PCASP, DCASP, it is not possible to identify how the DRU's resources are effectively accounted for by the government's systems. These values are considered in the computation of revenues in which G/L account?</p> <p>Answer: 62120.00.00 N 12100911 0100980000 1 98000 1 8</p>																															
<p>Query: There is an account in PCASP to evidence the DRU?</p> <p>Answer:</p> <table border="1"> <thead> <tr> <th>Account</th> <th>ISF</th> <th>Revenue nature</th> <th>Source</th> <th>Budget sphere</th> <th>UO</th> <th>Result indicator</th> <th>Levying type</th> </tr> </thead> <tbody> <tr> <td>62120.00.00</td> <td>N</td> <td>12100911</td> <td>0100980000</td> <td>1</td> <td>98000</td> <td>1</td> <td>8</td> </tr> <tr> <td>62120.00.00</td> <td>N</td> <td>12100911</td> <td>0100980001</td> <td>1</td> <td>98000</td> <td>1</td> <td>8</td> </tr> </tbody> </table>								Account	ISF	Revenue nature	Source	Budget sphere	UO	Result indicator	Levying type	62120.00.00	N	12100911	0100980000	1	98000	1	8	62120.00.00	N	12100911	0100980001	1	98000	1	8
Account	ISF	Revenue nature	Source	Budget sphere	UO	Result indicator	Levying type																								
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62120.00.00	N	12100911	0100980001	1	98000	1	8																								
<p>Query: Even with the difficulty of extracting information about the DRU in the SIAFI, the Managerial Treasury and (or) the Transparency Portal, it is possible to identify only the existence of a classification by specific source of funds, i.e., the DRU is only a current account control in the financial?</p> <p>Answer: In order to comply with the Constitution, an accounting routine for the collection and classification of resources was developed within the Federal Government that automatically distributes the percentage values referring to the original revenue and the untied values.</p>																															
<p>Query: Which norm regulates the internal operationalization of the DRU?</p> <p>Answer: Since this is a budget revenue classification process, there was no need for a new internal rule to regulate the DRU.</p>																															

Picture 3 - Structured consultation with general questions about DRU.

Source: Prepared by the authors.

The answer points out the codification (62120.00.00 N 12100911 0100980000 1 98000 1 8) as the accounting account for DRU resources. However, decoding in PCASP what was presented, according to the Manual of Accounting Applied to the Public Sector (MCASP) of the National Treasury Secretariat (STN, 2018), the answer can be interpreted by reading the DRU accounted as "realized revenue". Next, the Financial Surplus Indicator (ISF) was presented, evidencing that, for the DRU, it does not apply (N). With regards to the Nature of Revenue (12100911), it is noted that its only kind of revenue is classified as social contributions. It should be noted, however, that taxes also make up the calculation basis of the DRU, but were not pointed out by CCONF.

The Source of Resources (0100980000), has the purpose, in the case of revenue, to indicate the allocation of resources for the realization of certain budget expenditures, while, for budget expenditure, it identifies the origin of the resources being used, in accordance with the MCASP (STN, 2018), i.e., it allows the control of the origin and destination of the resource. In the case of DRU, its code is broken down in the following sequence: (0) is the use identification that corresponds to "not intended for counterpart," (1) is the group/source concerning "Treasury Resources - current year," (00) is the source/specification of the destination referring to ordinary revenue, and (980000) means "detailing - Union Revenue Disengagement - Source 100." In turn, in (980001), the last digit (1) corresponds to the Result Indicator that makes up the calculation of the Primary Result.

The Budget Sphere (1) corresponds to the Fiscal Budget. The Budgetary Unit (UO 98000) means Federal Treasury Revenue. The Result Indicator (1) composes the calculation of the Primary Result and the Type of Collection (8) means that it is a non-linked revenue. Regarding the difficulties in extracting information about the DRU from the SIAFI, the Managerial Treasury and (or) the Transparency Portal, which only allow the identification of the existence of a classification by specific source of funds, the DRU was confirmed as a current account control in the financial system, which automatically distributes the percentage values referring to the source revenue and the untied values.

It should be noted that this accounting routine makes the transparency and control of the DRU difficult for the various users outside the STN, because the financial current account is not evidenced in the accounting reports, which require records in an accounting account to generate information that meets the standards and qualitative characteristics required by the accounting science.

Regarding the questioning about the internal regulation and operationalization of the DRU, the answer obtained was that, since it is a budget revenue classification process, there was no need for a new internal regulation to regulate the DRU.

Since these questions and answers were not enough, we also consulted the classification inventories by nature of budget revenue, which subsidize the Federation's entities in their adequate accounting records and where all the codifications are found, including those established by means of the STN/SOF Inter-ministerial Ordinance no. 163, of May 4th, 2001. Thus, the inexistence of a coded accounting account that would show the DRU in a clear and direct way was verified, promoting transparency and control over these resources.

The absence of these characteristics is grounded in the central theme of accountability deficits. According to scholars, in general, the public sector is surrounded by accountability deficits, considered a challenge in public administration (Bovens, 2006; Dubnick & Frederickson, 2010; Mulgan, 2014).

As the DRU has the characteristic of having emerged with the legitimate purpose of providing a more efficient allocation of revenues, removing part of the undesirable finalistic allocation and allowing the free allocation of resources by the Union (Mansur, 2018), it is strange that 30% of the Union's collection related to social contributions, contributions for intervention in the economic domain and fees, without prejudice to the payment of expenses of the General Regime of

Social Security, does not have due transparency and disclosure for purposes, mainly, of social control.

After all, the fact that the DRU has the particularity of being a resource considered "free", this does not imply the need for it to be a resource hidden from accounting reports. On the contrary, it is necessary that they, too, have the same transparency, evidencing and control that the bound resources already have.

From the perspective of Accounting Theory, Breton (2019) alerts to the reflection that a theory, even when issuing laws resulting from systematic observations, tries to explain and predict, from the knowledge developed about the object, what its behavior will be. While a policy choice, in its most fundamental meaning, attempts to prescribe behavior not to predict it. In accounting, the confusion between these processes is constant. Accounting always has a double meaning of listing and counting important things and providing an account for what has been listed and counted, connected to accountability, in a context of social power relations in which enforcing standards and fulfilling obligations is a reasonable expectation (Bovens, Goodin, & Schillemans, 2014).

Even if public sector accounting is influenced by the development of democracy and goes hand in hand with the social and economic development of society (Tagesson, 2014), "accounting information is particularly useful for legitimation activities because it appears to possess a neutral technical rationality" (Chua, 1986, p. 617).

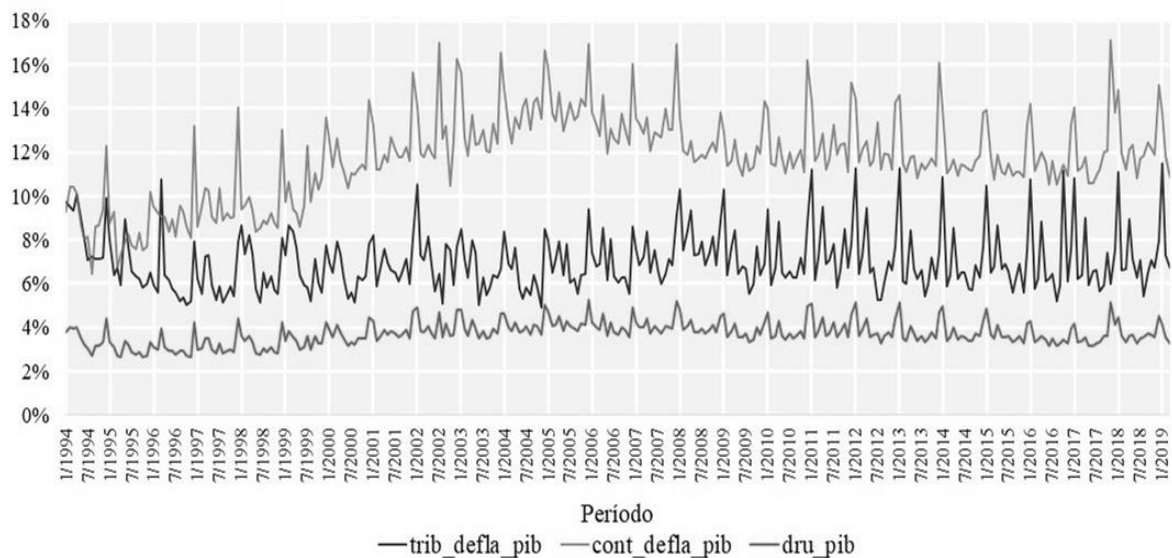
In this sense, accountability processes are fundamental, as instruments for maintaining the order of management control, with a focus on oversight, monitoring and evaluation of performance, aiming to increase efficiency, eliminate waste, minimize fraud and abuse of power (Olsen, 2018).

Conversely, the perception of accountability deficit is heightened when institutionalized accountability practices do not work or are not perfectly understood, generating mistrust, contradictory or unrealistic expectations and aspirations, and arbitrary use of powers (Bovens, Curtin & Hart, 2010; Olsen, 2018).

These factors favor the discussions that permeate the DRU and hinder a consensual understanding about its impacts on health and social security spending, on the federative pact and even on its constitutionality, which could be minimized with the increase of accountability practices in this mechanism by the Brazilian public power.

4.2 DRU Behavior

Since 1994, questions involving the DRU and its impact on social security have persisted, due to the difficulties in clarifying and assessing the extent to which it influences or not the allocation of resources for the functions of government as well as the management of these resources transformed into an increase in the discretionary power of the government, causing discussions about the apportionment with the subnational entities. Thus, in the quantitative analysis, Figure 4 presents the series of tax revenues, contributions and DRU in real values (R\$) in relation to the Brazilian GDP represented, respectively, as *trib_defla_pib*, *cont_defla_pib* and *dru_pib* in (%).



Picture 4 - Historical series of tax revenues, contributions and DRU in relation to the Brazilian GDP.

Source: elaborated from the research data.

One can see that the tax revenue series decreased in relation to the Brazilian GDP between 1994 (10%) and 1996 (5%), remaining, relatively, constant throughout the period, while the contribution revenue series increased between 1994 (9%) and 2005 (17%), remaining, relatively, constant in the following period until 2017 (17%), when it showed higher results. On the other hand, the DRU remained relatively constant over time, oscillating near 4% of GDP. According to the TCU (2009), these results of the Brazilian economy were influenced by the international financial crisis. In 2009, the GDP decreased its value, in real terms, by 0.2% in relation to the 2008 GDP, reaching a total of R\$3.143 trillion.

Figure 4 also reveals the trajectory of Brazil's fiscal situation, showing expansionary fiscal policy behavior during periods when the economy was growing above its long-term trend and contractionary when the economy was operating below its potential.

Brazil is characterized by significant economic volatility, periods of hyperinflation, recessions, and brief intervals of relative stability. With the Real Plan (1994) came the stabilization of the currency and, between 2003 and 2014, the country experienced a phase of relative progress. However, since 2015, it has been going through a period of economic activity marked by a strong recession. The country's growth rate has been decelerating since the beginning of the decade, from an average annual growth rate of 4.5% between 2006 and 2010 to 2.1% between 2011 and 2014 (World Bank, 2018; OECD, 2018).

Regarding the DRU, its last extension, which occurred in 2016 (EC no. 93), coincided with the recession period, which strengthens the perception of the need that the Government had not only to extend the time of validity to 2023, but also to increase the percentage of free resources (30%), and also to modify the calculation basis for the revenues from contributions. Thus, it was expected that the DRU would have considerable increases. However, when analyzed from the GDP perspective, it was not possible to confirm this expectation through the results presented so far, which would require extrapolation of the studies.

In order to show more precisely this analysis scenario, Table 1 below presents the averages and standard deviations for each of the three index series presented in Figure 4. In this regard, it is necessary to point out that the statistics gathered from the time series are descriptive in nature, since long-term trends and seasonality may also influence sensitive measures such as the average.

Table 1
Descriptive statistics of the time series of the indexes

Panel A – Indexes descriptive statistics (%)									
	Average	Median	Minimum	Maximum	Standard-deviation				
Taxes/GDP	7,021	6,652	4,899	11,473	1,351				
Contributions/GDP	11,767	11,774	6,424	17,083	1,978				
DRU/GDP	3,726	3,635	2,654	5,265	0,537				
Panel B - Average and standard deviation of the indexes over the analyzed period (%)									
Period	Taxes/GDP			Contributions /GDP			DRU/GDP		
	Average	Min,	Max,	Average	Min,	Max,	Average	Min,	Max,
1994-96	7,508	5,835	10,073	8,843	6,424	13,175	3,201	2,654	4,434
1997-99	6,556	5,141	8,656	9,886	8,360	14,052	3,280	2,744	4,400
2000-02	6,831	5,068	10,522	12,293	10,384	17,022	3,826	3,141	4,926
2003-05	6,639	4,899	9,413	13,476	11,854	16,629	4,077	3,487	5,265
2006-08	7,369	5,521	10,292	12,974	11,563	16,920	4,069	3,578	5,206
2009-11	7,188	5,568	11,215	12,209	10,936	16,218	3,879	3,341	5,110
2012-14	6,888	5,270	11,253	12,089	10,794	16,062	3,775	3,301	5,174
2015-17	6,987	5,206	11,178	11,763	10,542	17,083	3,594	3,163	5,125
2018-19 ^a	7,284	5,420	11,473	12,149	10,828	15,060	3,578	3,249	4,518

Obs. ^a The values for the year 2019 were obtained with the observations for the months of January, March and April.

Source: elaborated from the research data.

According to Table 1, the DRU, tax revenues and contribution revenues represented, on average, 3.7%, 7.0% and 11.7% of the GDP, respectively. The series also showed strong oscillation in the period, as observed in the minimum (2.6%, 4.8%, and 6.4%, respectively) and maximum values (5.2%, 11.4%, 17.0%, respectively), with emphasis on the maximum allowed values of DRU, which reached more than 5% of GDP in 2006. For Alves (2017), the extraordinary increase in the levying through contributions as the preferred way to increase federal revenues, especially because they are not subject to the sharing system, ends up removing much of the resources that would be distributed to states and municipalities.

The confirmation of the Union's tax exemption policy is worth mentioning in this scenario given that, according to Mansur (2018), it is based on the expansion of taxation through contributions, especially in 2008, in order to cushion the negative effects of the global economic crisis, known as the "US housing bubble". As the Union began to focus on taxation through contributions, the DRU, which is in force until 2023, has stopped untying tax revenues since 2016, which, in turn, does not directly affect the distribution of revenues for subnational entities.

This context signals the reason why the Union realized the need to change the calculation basis of the DRU for contributions and fees and also to increase the percentage, in the expectation of generating more free resources without violating the federative pact, since these revenues have exceeded the collection of tax revenues, with no prospects of reversal.

Thus, the results show that their characteristics of accountability deficit cover up the gradual deconstruction that the Union promoted in tax revenues with the regular granting of incentives, benefits and tax exemptions, culminating in the main reason for violation of the federative pact. Therefore, it brings about questionings, doubts and criticisms, without in-depth discussions.

Moreover, the fact that the DRU is a mechanism that does not meet the Accounting Theory characteristics of verifiability and control, corroborates the unfavorable findings from Sunder (2014) regarding withholding information by managers, which generates a selective manipulation that reduces the credibility of accounting information, while ensuring their welfare.

From all of the above, it is clear that the DRU is still very questionable and unclear, especially when searching for accountability practices. This absence ends up revealing accountability deficit characteristics.

4.3 Quasi-experiment: regression testing with interrupted time series

In this stage, characterized as a quasi-experiment, econometric models were applied to test whether the implementation of the DRU (EC no. 93/2016) enabled an increase in the maximum value reached with the untying, as there were expectations of reaching higher levels of untying, due to changes in the percentage of the calculation basis of this mechanism. Panel A of Table 2 presents the results of the interrupted regression estimation, adopting Newey-West (1987) standard errors. In Panel B, the model was re-estimated, adopting the Prais-Winsten (1954) methodology with AR errors (1).

Table 2

MQO interrupted regression analysis

Panel A – interrupted regression (1)		
Variable	Coefficients	95% Confidence Interval
Constant	3,3018 *** (46,36)	[3,1617; 3,4420]
<i>NOVA_DRU</i>	-0,6766 *** (-6,74)	[-0,8741; -0,4792]
<i>POS_DRU</i>	0,0055 (1,39)	[-0,0023; 0,0133]
<i>TEMPO</i>	0,0028 *** (6,36)	[0,0019; 0,0037]
<i>SAZO</i>	0,6764 *** (6,89)	[0,4831; 0,8696]
Observations		303
R ² (%)		27,44%
Adjusted-R ² (%)		26,46%
Panel B – interrupted regression (2)		
Variable	Coefficients	95% Confidence Interval
Constant	3,3241 *** (41,61)	[3,1669; 3,4813]
<i>NOVA_DRU</i>	-0,6314 *** (-2,92)	[-1,0566; -0,2061]
<i>POS_DRU</i>	0,0037 (0,42)	[-0,0136; 0,0211]
<i>TEMPO</i>	0,0028 *** (5,50)	[0,0018; 0,0038]

SAZO	0,4558 *** (5,40)	[0,2897; 0,6219]
Observations		303
R ² (%)		17,95%
Adjusted-R ² (%)		16,85%

Significance: *** $p < 1\%$, ** $p < 5\%$ e * $p < 10\%$.

Obs. In Panel A of Table 2, the standard errors were obtained with one (1) lag, robust in the presence of autocorrelation and heteroscedasticity of the errors. The values for t are in parentheses. In Panel B, qualitatively, the results are kept.

Source: elaborated from the research data.

As shown in the regression results, the initial level of the DRU/GDP ratio was estimated at 3.30%, close to the average of the entire series shown in Table 1. Such a relationship showed a statistically significant trend throughout the series, but this result is economically irrelevant, given its magnitude (0.0028%).

In the first month after the implementation of the new DRU (January 2016), there are indications that there is a significant reduction in the DRU/GDP ratio of -0.67%. However, after the intervention (POS_DRU), it is not possible to say that changes in the trend of the series have occurred. Controlling for seasonality was significant (January of each year), in demonstrating the importance of considering seasonal patterns over time, as disregarding their effects could compromise the results.

As shown in Panel B, as a robustness test, the Prais-Winsten method (1954) was employed, with qualitatively similar results, as the coefficients only presented changes after the second or third decimal place.

The interrupted regression was replicated, with the addition of one more control for seasonality, the variable SAZO2, a dummy that assumes a value of 1 in all December months of each year and 0 in the other months. The results were not qualitatively different, and the interpretation of Table 2 remains the same.

Once again, as a robustness test, the Prais-Winsten (1954) method was employed, with the exception of the significance of the second seasonality (SAZO2), which had a p-value $< 1\%$, the results were similar to those shown in Table 2.

Thus, this quasi-experiment allowed us to statistically test whether the implementation of the new DRU enabled an increase in the maximum value reached with the untying, finding that until March 2019, the last reference month of this analysis, there was no increase in the DRU in relation to GDP, even with the change in the calculation basis and the percentage.

From 1994 to 2015, the DRU enabled the recentralization of income under the control of the Union in tax revenues, maintaining a direct relationship with the distribution of resources to subnational entities (states, Federal District and municipalities), while applying the tax relief policy, increasing its taxation by obtaining revenues from contributions, which ultimately contributed to the unbalancing process of the Brazilian federative pact.

In general, the DRU accumulates discussions that signal characteristics of accountability deficit, including by the external control system of Brazil itself, as pointed out by the TCU, in the report of analysis of the accounts of the Government of the Republic regarding the year 2000 when emphasizing that the Constitutional Amendment no. 27, of 21/3/2000, that instituted the DRU and in which the values

are classified as ordinary resources (source 100), "thus, there is no separate execution of this parcel of revenue from the National Treasury. *Thus, the monitoring of specific budget execution is removed, which no longer favors, in particular, control actions*" [our emphasis]. (TCU, 2000, p. 95).

In 2007, again, the TCU makes a reservation when analyzing the Federal Government's accounts, pointing out that, "due to the current accounting system of the DRU resources together with the "00 - Ordinary Resources" source, *it is not possible to determine the exact amount of resources released from security that would finance the fiscal budget, or return to the sphere itself* [our emphasis]. (TCU, 2007, p. 161).

The absence of control over the DRU resources, as pointed out by the TCU, also corroborates all the discussion that was held in this research. The absence of accounting information about this mechanism that meets the qualitative characteristics required for the most diverse users, as well as the unavailability of it, ends up affecting its transparency and, consequently, the proper accountability for all the resources that are involved in this process.

After all, the fact that the DRU grants more freedom to the Executive Branch should not be confused with the right to make it hidden, which, besides leading to disagreements and questioning, ends up compromising the public accounts.

Thus, through empirical analysis that allowed examining relevant issues about the DRU, the results suggest evidence of accountability deficit in the DRU, which gives the Brazilian federal government an increase in its discretionary power of taxation and a maneuver that avoids sharing resources with subnational entities, confirming the justified guiding hypothesis (H_i : There is evidence of an accountability deficit in the DRU in light of Accounting Theory).

Accountability deficits are located in managements that are not motivated or able to do it or to improve the accountability system in general (Bovens et al., 2010; Busuioc, 2010). Mulgan (2014) points out that they should be seen as relative and comparative, on the assumption that all accountability systems are deficient in some aspects. Therefore, to recognize or make judgments about it requires an explicit view of why the deficit is harmful and why, if possible, it should be mitigated or removed.

In this context, the DRU accountability deficit can be observed by weaknesses such as the absence of control over the allocation of these free resources, the lack of accounting information available in the reports, the unavailability of accountability and, consequently, its transparency, factors that should be minimized or eliminated, given the representativeness of the volume of resources involved, the constitutional and political issues, its influence on the Social Security Budget and on subnational entities, in addition to the discussions and criticisms that involve it, renewing itself with each extension.

5 CONCLUSIONS

In general, this study sought to highlight accountability deficit practices in the DRU in light of the Accounting Theory, as this is a mechanism that gives more freedom to the Executive Branch of the Brazilian Federal Government to act on its

priorities, and the way it is presented, it ends up compromising the disclosure of fiscal information, transparency, accountability and control.

Given these characteristics, in practical terms, there is non-compliance with the constitutional order, by circumventing the distribution of resources, prioritizing a tax exemption policy and maximizing its collection by contribution revenues, which compromise the subnational entities (state and municipal governments) and generates fiscal fragilities and accountability practices.

Based on the Brazilian GDP, the DRU was estimated at 3.30%, without significant oscillations, remaining constant throughout the period, since the beginning of its effectiveness, when it was the Emergency Social Fund. Moreover, the successive extensions and the gradual expansion of the DRU end up materializing it as a permanent mechanism, due to the time it remains in force, since, when it reaches 2023, it will be close to completing three decades of full implementation.

In this sense, it is necessary to take into account that in the analyzed period (from January 1994 to March 2019), Brazil went through positive moments and moments of economic crisis. According to the Organization for Economic Cooperation and Development, the country had strong growth combined with social progress, despite the long recession that began in 2014, and has been slowly recovering (OECD, 2018).

The fact is that, considering the scenario of growth in contribution revenues, to the detriment of tax revenues, a centralization of financial resources by the Union occurs, with characteristics of a powerful governance instrument.

After analyzing the behavior of the DRU, whether its calculation basis is before or after its last extension, which occurred in 2016, questions and discussions arise regarding the federative pact and the impacts on health, social security, and social assistance.

When the interests and power relations reflect discussions and conflicts over this design of a parallel system of collection that is driven by the DRU, there is a result dissonant from the provisions of the 1988 Constitution.

One also notices that the actors involved with the DRU protect themselves, in a certain way, with the effective lack of accountability, by not being accountable to the governed, failing to explain and justify their behavior, when information presumes control and the possibility of accountability, thus characterizing evidence of accountability deficit.

In sum, the answer to the research problem enables us to conclude that the accountability deficit in the DRU has relevant transparency and control weaknesses. The fact that the government holds significant volumes of public resources for discretionary use, without the proper governance practices being observed, ends up revealing that the maximization of public budgets is still insufficient to the public interest.

In turn, the political leaders that were elected by society to defend the interests of the collectivity, end up over time, keeping the DRU renewal, without making it traceable, controllable, and transparent.

Furthermore, it is not possible to generate useful accounting information about the DRU, a point emphasized by the external control system of the country itself, when pointing out its difficulty in auditing it.

Thus, the DRU is perpetuated by political cycles, yet, signaling the existence of implicit aspects regarding the entries, the omission of information and the absence of its evidencing in the accounting statements, since there is no accounting account for such bookkeeping, corroborating with accountability deficit practices.

Thus, the results presented are limited to the design of this research. It is hoped that these results will encourage, direct and expand future studies, seeking to discuss this theme from other theoretical approaches. In addition, it is expected that they may analyze the DRU at the level of subnational entities, in order to map other externalities, considering regional and local peculiarities.

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