

EXPLORING THE DISCLOSURE DIFFERENTIALS OF GOVERNMENT GRANTS AND ASSISTANCE IN BRAZILIAN COMPANIES LISTED IN B3


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ABSTRACT

The study aims to explore the differences in the disclosure of Government Grants and Assistance (SAG) in publicly traded Brazilian companies. The sample consists of 353 publicly traded companies listed on Brasil, Bolsa and Balcão (B3) between 2017 and 2019. The data were obtained by analyzing the content of the explanatory notes referring to the Standardized Financial Statements (DFP) available on the company's website. B3 S/A, verifying the information related to SAG, as stated in the Accounting Pronouncements Committees (CPC), CPC 07 (2008) and CPC 07 R1 (2010). To achieve the objectives of the study, an independent t-mean comparison test and analysis of variance were performed. The results showed that the SAG are mostly of State (39.8%) and Federal (38.6%) origin and the most representative SAG is granted to companies through tax incentives (54.1%). The results of the statistical tests show that the level of SAG disclosure does not differ according to corporate governance and the period. On the other hand, the results show that unregulated companies present higher levels of SAG disclosure and that the oil, gas and biofuels and health sectors presented, respectively, the highest and lowest levels of SAG disclosure. The study seeks to contribute to the literature by evidencing the existence of differences, or not, in the level of disclosure of SAG based on company characteristics, such as the level of corporate governance, regulation, the sample period and the sector of activity.

Keywords: CPC 07. Disclosure. Government grant and assistance.

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1 INTRODUCTION

The industry, together with the other economic sectors, contributes to the growth of market productivity (Lamonica & Feijó, 2007). However, to achieve a certain level of development, the governments need to offer conditions for companies to deal with economic change (Saac & Rezende, 2019). In this context, the granting of subsidies and government assistance (SAG) provides benefits to companies, impacting their results and their strategies (Julião *et al.*, 2013), being economically relevant to companies (Stadler & Nobes, 2018). On the one hand, the SAG benefits on pecuniary conditions, while on the other hand SAG provide economic benefits to an entity or group under specific criteria (Taveira, 2009).

In Brazil, SAG is regulated by the Accounting Proposition Committee, which issued CPC 07 R1 (2010), revoking CPC 07 (2008). This statement was drawn up from *the International Accounting Standards 20* (IAS 20), issued by the *International Accounting Standards Board* (IASB), as part of the process of convergence of Brazilian accounting standards to international accounting standards. Among the changes in the internationalization of standards process, we highlight those related to innovation in accounting records. For example, the recognition of SAG has come to occur at the time of its receipt, provided that all the conditions necessary for its implementation have been met (Loureiro, Gallon & De Luca, 2011). This allowed the information user to distinguish the effects of SAG with respect to gains related to the entity's normal operations (Saac & Rezende, 2019).

Having said that, SAG's concession has, among others, the objective of promoting business investments and generating jobs, producing greater local demand for goods and services (Peters & Fisher, 2004). To Taveira (2009), SAG seeks to increase operations, attract investments to certain underdeveloped regions and finance the promotion of public interest activities. However, according to Aschhoff (2008), the resources granted through SAG are scarce, with governments deciding on the recipients of subsidies, defining and changing eligibility criteria based on their objectives. The literature points out that the availability of SAG suffers influences from factors such as economic sector, corporate governance, profitability, size and audit (Carlos Filho & Wickboldt, 2019; Saac & Rezende, 2019; Scheren, Dalchiavon & Moura, 2018).

Such studies suggest that the heterogeneous characteristics of companies may impact the concession of SAG, raising the hypothesis that it would be possible to observe differences also in levels of disclosure based on such characteristics. Given this scenario and considering the relevance of the *disclosure* of SAG to the various *stakeholders*, the question is proposed: what are the differences in the disclosure of SAG in Brazilian publicly traded companies? In order to answer this question, it is outlined as a general objective to explore the differences in *the disclosure* of SAG in Brazilian publicly traded companies. It is analyzed, as a specific objective, the distribution of SAG from the source of resources and the type of benefit.

The disclosure differences are investigated from the following characteristics of companies: level of governance, sector regulation, year and sector of activity. The analysis of the research was defined in a sample composed of 353 publicly traded companies listed on Brasil Bolsa Balcão (B3 S/A) in the period between 2017 and 2019. The data were obtained through the analysis of the contents of the explanatory notes, checking the information related to SAG, as stated in CPC 07 (2008) and CPC 07 R1 (2010). Data on the attributes of the companies were collected on the website of B3 S/A. For the achievement of the objectives of the study, statistical tests were carried out to compare Student's *t*-means and analysis of variance (ANOVA).

Regarding the justification of this research, several studies were identified that evaluated the content and level of *disclosure* of SAG (Taveira, 2009; Chagas, Araújo & Damascena, 2011; Rodrigues, Silva & Faustino, 2013; Benetti *et al.*, 2014; Santos, Dani & Klann, 2015; Souza, Parente, Farias & Forte, 2018) and their prior and subsequent ones (Loureiro *et al.*, 2011; Gonçalves, Nascimento & Wilbert, 2016; Rezende & Dalmácio, 2018; Scheren *et al.*, 2018; Saac

& Rezende, 2019; Souza et al., 2019). This work, in turn, evaluates the differences of *disclosure* of SAG, which reinforces the importance of the development of this research.

This work contributes to the literature by suggesting that the level of *disclosure* of SAG is distinct from the sector regulation and the sector of the company's activity. For investors, these disclosures may suggest sectors that have a higher volume of information for the capital market on SAG, further mitigating the informational asymmetry between *insiders* and *stakeholders*. For the accounting regulators, the findings of the research show that companies meet, even if partially, the requirement of *disclosure* of SAG.

2 THEORETICAL BASIS

2.1 Disclosure Theory

In the disclosure literature, there is no central paradigm. Therefore, it could be better characterized as a highly idiosyncratic eclectic mix, and there is no theory that encompasses and is solid in relation to disclosure (Verrecchia, 2001). However, Dye (2001) argues that the disclosure theory is already in an advanced stage, configuring itself as a positive study of accounting. That emerged in the late twentieth century and studies models that analyze how the dissemination of information exert influence on the market and on the economic performance of organizations from the point of view of the economy.

In this sense, this theory seeks to explain the phenomenon of disclosure of financial, social and environmental information in order to understand, among other aspects, the economic reasons for certain information to be disclosed. Thus, the pressure exerted on the companies by *stakeholders* on the disclosure of information related to the organization requires the elaboration of information to different recipients in order to meet their interests (Cotter, Lokman & Najah, 2011).

In this context, it is faced with the agency conflict, which is the possibility of divergence of interests between shareholders and managers of a company, that is, when they start making decisions about the business aiming their own interests (Jensen & Meckling, 1976). In order to mitigate such conflicts, corporate governance emerges, which aims to protect the company's assets against possible expropriations or wastes by the managers (Rocha, Moura & Reis, 2011).

Corporate governance bases its best practices on the principles of transparency, equity, *accountability* and corporate responsibility. Its proper adoption results in a climate of trust both internally and in relationships with third parties (Brazilian Institute of Corporate Governance (IBGC), 2021). Therefore, it is important to highlight the principle of transparency, which is achieved with the proper disclosure of the company's information and has the function of mitigating the asymmetry of information among its *stakeholders* (Jensen & Meckling, 1976).

The reduction of informational asymmetry is one of the assumptions of the theory of disclosure, which aims to provide relevant information for the decision-making of different users of financial information (Verrecchia, 2001). Corroborating with this assertion, Brammer and Pavelin (2008) report that the adequate disclosure in the market contributes to the reduction of informational asymmetry between the company and its *stakeholders*.

In order to reduce the informational asymmetry, Brazilian publicly held companies must annually highlight, among other documents, the management report on social business and the main administrative facts, the opinion of the independent auditor, the opinion of the fiscal council and the financial statements (Brazil, 1976). The latter present standardized financial information, whose purpose is to meet the informational needs of users and assist them in decision making (CPC, 2011).

2.2 Grants and Government Assistances (SAG)

In a historical retrospect, relationships between government and market fluctuate constantly. Due to changes in the market and consumption patterns, governments seek to undertake development policies to ensure that their companies are relevant participants in technological races (Kupfer & Hasenclever, 2020). Such policies are directed, for example, to innovation, to industry and to small and medium-sized enterprises (Coronel, Azevedo & Campos, 2014; Naretto, Botelho & Mendonça, 2004).

However, by choosing to stimulate certain areas, to the detriment of others, governments direct their actions in search of a development strategy, whose purpose is to benefit certain economic sectors fundamental to the generation of currencies, the diffusion of technologies and the expansion of employment levels, contribute to increased competitiveness and boost a more effective use of natural resources (Coronel *et al.*, 2014).

Given the above, the SAGs aims to attract investments and stimulate a certain economic sector or region, increasing operations and financing the promotion of public interest activities. In addition, these benefits can be granted by governments of the municipal, state and federal contexts (Taveira, 2009). According to Crispim (2011), the SAGs foster the development of organizations and vary according to the nature and conditions under which they occur. The SAGs can occur through the receipt of tax incentives, grant of research grants, subsidized financing (refundable), economic subsidy (non-refundable) and capital flow (Macaneiro & Cherobim, 2009).

Government incentives are benefits commonly offered by governments to stimulate business growth and such subsidies represent public policy instruments used to promote regional development, exports and stimulate sectors considered priority (Nascimento, 2013). For example, government incentives can be granted with a focus on regional development in the areas of the Superintendence of the Development of the Amazon (SUDAM) and the Northeast (SUDENE), usually granted by the federal government (Taveira, 2009). There are also investment grants, the purpose of which is to attract and promote investments in industries in regions in need of development (Taveira, 2009).

In view of the above, the subsidies should be reversed for the sake of society. The favored companies should deliver benefits to the region and to the local economy, in addition to providing accounts to the public authorities and other *stakeholders*, from the disclosure of their operations in accounting reports (Saac & Rezende, 2019). In Brazil, such procedures are regulated by CPC 07 R1 (2010), and accounting and disclosure of SAG should be applied.

CPC 07 R1 (2010, p. 2) defines government assistance as an “action by a government intended to provide specific economic benefit to an entity or group of entities that meet established criteria”, while the government grant is defined as “government assistance generally in the form of a pecuniary contribution, but not only restricted to it, granted to an entity normally in exchange for the past or future fulfillment of conditions related to the operational activities of the entity”.

SAG should be recognized as revenue in the Profit and Loss Statement (DRE), justified by the arguments that: (i) it is received from non-shareholder sources and derives from management act for the benefit of the entity; (ii) it is rarely free and the entity effectively gains that revenue, provided it complies with the rules of SAG and certain obligations; and (iii) the taxes are expenses recognized in the Profit and Loss Statement (DRE), SAG is an extension of fiscal policy. After passing through the result of the year, SAG may, from the accumulated profit or loss account, the credit in its own reserve may occur, as an accumulation of tax incentives (CPC 07 R1, 2010).

As regards the items to be disclosed in the financial statements, pursuant to CPC 07 (2008), the companies should disclose at least the following information: (a) the accounting policy and presentation methods adopted for SAG; (b) the recognized nature and extent of SAG, as well as the indication of other forms of governmental assistance from which the entity has directly benefited; (c) conditions to be met regularly linked to the SAG that has been recognized; (d) failure

to comply with conditions relating to SAG or the existence of other contingencies; (e) the period within which the SAG will remain in the entity; (f) any SAG to be recognized in full, after the contractual conditions have been met; (g) premises used for the calculation of fair value; and (h) information regarding the installments applied in regional investment funds and the reductions or exemptions of taxes in incentivized areas. With the changes introduced by CPC 07 – R1 (2010), the amount of items that should be disclosed by companies has been reduced, disciplining that only the information pointed out in items (a), (b) and (c) should be disclosed.

2.3 Empirical studies

The changes promoted in the treatment of SAG led to the development of studies on how entities have recognized and disclosed the SAGs in their financial statements (Taveira, 2009; Chagas *et al.*, 2011; Rodrigues *et al.*, 2013; Benetti *et al.*, 2014; Santos *et al.*, 2015; Souza *et al.*, 2018). Research was also carried out to verify the background and consequences of the SAGs in the companies (Loureiro *et al.*, 2011; Gonçalves *et al.*, 2016; Rezende & Dalmácio, 2018; Scheren *et al.*, 2018; Carlos Filho & Wickboldt, 2019; Saac & Rezende, 2019; Souza *et al.*, 2019). This section aims to summarize these studies, demonstrating, at the end, the gap that is intended to be filled.

Taveira (2009), for example, investigated the disclosure of information about SAG in Brazilian companies classified in the differentiated segments of corporate governance of B3 S/A, shortly after the approval of the CPC 07 (2008). The results of the study show that the information presented little or no details in indicators that required a higher level of explanation, not meeting the criteria defined by the said pronouncement.

In a different context, Chagas *et al.* (2011) explored the disclosure of SAG in Civil Society Organizations of Public Interest (OSCIPs) of Paraíba and Rio Grande do Norte, according to CPC 07 (2008) and CPC 07 R1 (2010) pronouncements. Although there is a requirement to disclose this information in the financial statements, many entities did not do so, even if a representative part of these resources – about 70% of the total received by the OSCIPs – comes from SAG.

Rodrigues *et al.* (2011) analyzed the compliance in the disclosure of SAG in the companies of the state of Pernambuco in the period between 2007 and 2009, assuming the association with the external audit, the size of the company and the accounting knowledge of the accountant. The results showed that only 31% of the financial statements complied with the guidelines of the pronouncement and that accounting compliance is associated with the external audit and with the level of knowledge of the accountant regarding accounting.

Benetti *et al.* (2014) investigated the level of *disclosure* of SAG in Brazilian companies in 2010, using information entropy analysis. The authors found that the companies published, predominantly, the policy adopted for the SAGs, where the sectors of cyclical consumption, basic materials and public utility presented satisfactory disclosure. An analysis of SAG *disclosure* in the electricity sector, between 2010 and 2014, was performed by Santos *et al.* (2015). In this study, the authors conclude that the level of disclosure of SAG is unsatisfactory at the beginning of the adoption of the pronouncement, but there is adherence throughout the period analyzed.

Souza *et al.* (2018) analyzed the content and level of disclosure of SAG of Brazilian companies that benefited from the Financing Company of Studies and Projects (FINEP) in the period between 2008 and 2015. In general, the study demonstrated an unsatisfactory level of disclosure throughout the analyzed period corroborating the policy adopted, such as the item of CPC 07 (2008) with greater adherence.

Other studies were developed to verify the SAG's representativeness in relation to the companies' results and performance. Loureiro *et al.* (2011), in addition to analyzing the level of disclosure of SAG in the largest Brazilian publicly traded companies, verified the observance of positive variation in the performance indicators. In addition, Almeida and Pereira (2019) carried

out a study with 64 industries from Santa Catarina, finding evidences of tax waivers of the order of only 2%. in relation to profit. This resignation occurred in approximately 44% of these companies (28 industries in Santa Catarina).

With a sample of 64 Brazilian publicly traded companies listed in B3 S/A, Gonçalves *et al.* (2016) identified that the companies that received SAG had higher levels of tax avoidance in relation to taxes on profit and added less value to their goods and services produced and marketed. Despite this, these companies generated a higher total added value, presenting a higher relative distribution of wealth for payment of taxes and personnel.

Rezende, Dalmácio and Rathke (2018) analyzed the impact of tax incentives on the return and investment and financing policies of Brazilian companies listed in the IBRX-100 in the period between 2011 and 2013. The research evidences show that tax incentives have a direct relationship with the generation of margins and the added value of companies, as well as have a positive relationship in the cash flow of investments and negative with the cash flow of financing.

Other studies investigated the determining factors of the receipt and *disclosure* of SAG in Brazilian companies, differing among the sample, the period of analysis and the explanatory variables. Saac and Rezende (2019) found evidences that the largest and most profitable companies, with BNDES' fundraising and audited by a Big4 are more likely to have SAG. In turn, Souza *et al.* (2019) found that the gross margin, the gross added value and the long-term indebtedness increase the probability of receiving SAG.

Araújo, Leite and Leite Filho (2019) verified how the indicators of the financial condition influence the granting of government subsidies by Brazilian states in an environment of economic crisis. The authors conclude that, even with the difficulty of cash that state governments have been going through throughout the crisis, the concession of SAG has not suffered major reductions. Finally, Carlos Filho and Wickboldt (2019) found empirical evidences that SAG, despite not being related to dividend distribution, contribute to the creation of shareholder value.

In summary, the studies on *disclosure* and receipt of SAG show that the companies showed a low adherence to the items required by the pronouncement between 2008 and 2015, however, demonstrating an evolution of the level of disclosure as the period differs from the publication date of CPC 07 (2008). In addition, the studies suggest that there is an association between SAG and measures related to the firm's performance. More recent studies investigate the implications of SAG on profitability indicators and wealth generation, in addition to the representativeness of the amount in relation to the companies' assets. Finally, the researchers have investigated the factors that explain *disclosure* and receipt of SAG in Brazilian companies.

Considering the studies developed so far, this research aims to fill a gap that aims to verify the existence of significant disclosure differentials of SAG of Brazilian publicly traded companies, listed in B3 S/A, in the period between 2017 and 2019, from the sector of activity, the company under regulation, the level of governance and the period of analysis.

3 METHODOLOGICAL PROCEDURES

The research population comprises the publicly traded companies of Brazil listed on B3 S/A. The intentional selection of companies is justified by the fact that CPC 07 regulates only Brazilian companies regarding SAG. Of this population, only companies that received some type of SAG in the period between 2017 and 2019 are analyzed, as shown in Table 1.

Table 1
Steps of the sample composition process

Description	Number of companies				
	2017	2018	2019	Total	(%)
(=) Companies listed on B3 S/A	413	433	440	1,286	100.0
(-) Companies that have not received SAG	306	314	313	933	72.6
(=) Final sample	107	119	127	353	27.4

Source: Elaborated by the authors.

The analysis is carried out in a period that differs significantly from the start date of the SAG regulation in 2008 (CPC 07, 2008), and after its revision in 2010 (CPC 07 R1, 2010). The content analysis of the Explanatory Notes of the 1.286 observations of the sample was performed focusing on the disclosures of SAG. To optimize the research, in the documents verified, terms such as grant, assistance, government, tax incentive, government and subsidy were researched. It should be noted that the data of the reports were analyzed by two researchers concomitantly, and then validated simultaneously by two other authors of this study, in order to mitigate the subjectivity of the analysis.

At first, it was verified the existence of receiving some type of SAG and then sought information about the origin of the resources (Federal, State and/or Municipal), besides the SAG terminology. For the companies that received SAG, the observations raised in the Explanatory Notes were quantified from a disclosure *checklist*, developed with support in the accounting statements CPC 07 (2008) and CPC 07 R1 (2010), as provided in Table 2.

Table 2
Disclosure items of the verification SAG in the explanatory notes

Item	Information to be disclosed according to CPC 07 (2008) and CPC 07 – R1 (2010)
1*	Accounting policy adopted for government grants, including the presentation methods adopted in the financial statements.
2*	The nature and amounts of government grants or government assistance, as well as the indication of other forms of government assistance from which the entity has directly benefited.
3*	Conditions to be met regularly related to government assistance that has been recognized.
4	Failure to comply with conditions relating to subsidies or the existence of other contingencies.
5	Possible subsidies to be recognized in full, after the contractual conditions have been met.
6	Assumption used for the calculation of the fair value required by this pronouncement.
7	Information on the installments applied in regional investment funds and the reductions or exemptions of taxes in incentivized areas.

Legend: (*) Items required only in CPC 07 – R1 (2010).

Source: Adapted from the Technical Pronouncement of CPC 07 (2008) and CPC 07 – R1 (2010).

If the items in *the checklist* (Table 2) have been presented, a value of 1 (one) is assigned in case of full disclosure and, otherwise, a value of 0 (zero). Therefore, the SAG *disclosure* level (*DASG*) is defined by the relationship between the total items disclosed and the total items that can be disclosed.

As mentioned above, the first three items of disclosure of *the checklist* (see Table 2) are continued by CPC 07 R1 (2010), while the other items are defined only in CPC 07 (2008). Thus, the main variable of the study, the SAG *disclosure* level (*DSAG*), was divided into two other variables: *DSAG3* and *DSAG7*. While the first variable reports the *disclosure* level of only the first three items of the pronouncement (CPC 07 R1, 2010), the second one highlights *the disclosure* level, including all the items of the pronouncement (CPC 07, 2008). The latter demonstrates whether the company has released all items despite the fact that there is no obligation.

In addition, this research used the analysis of comparison of means to examine the existence of differences in *the disclosure* of SAG in Brazilian companies based on the characteristics level of governance, sectoral regulation, year and sector of activity. Thus, to evaluate the difference of SAG disclosure means from the level of governance and sectoral regulation, the Student *t*-mean comparison test was applied, because these characteristics have only two characteristics. However, to identify the difference in SAG disclosure means from the year and the sector of activity, the Analysis of Variance (ANOVA) was performed, because these characteristics have more than two categories.

Regarding the level of corporate governance – which defines the rules and procedures that companies need to adapt to mitigate the risk of informational asymmetry – the companies arranged in the “New Market”, the highest level of governance of B3 S/A, were separated from the “other levels” of governance, which include Bovespa Mais, Bovespa Mais Level 2, Level 2, Level 1 and Traditional.

Regarding the sector regulation, the companies were differentiated into “regulated” and “unregulated”. Regulated companies are those that have some kind of supervision and control by regulatory agencies (Table 3), whose mission is to ensure the maintenance of quality in the provision of services, unlike non-regulated companies.

Table 3
Classification of companies by regulatory agency

Agency	B3 S/A subsector
ANATEL	Telecommunications.
ANCINE	Production and dissemination of films and programs.
ANEEL	Electrical power. Sugar and alcohol.
ANP	Oil, gas and biofuels. Gas. Petrochemicals. Exploration, refining and distribution.
ANTT	Rail transport. Road transport. Exploration of highways.
ANTAQ	Waterway transport.
ANA	Water and sanitation.
ANAC	Air transport. Aeronautical and defense material.
ANM	Metal minerals. Steel industry. Iron and steel artifacts.
ANS	Medical, hospital, analysis and diagnosis services.
ANVISA	Food. Various foods. Medicines and other products. Meat and derivatives. Fertilizers and pesticides. Wood. Cleaning products.

Legend: National Telecommunications Agency (ANATEL); National Film Agency (ANCINE); National Electric Energy Agency (ANEEL); National Petroleum, Natural Gas and Biofuels Agency (ANP); National Agency for Aquaviary Transport (ANTAQ); National Agency for Land Transport (ANTT); National Water Agency (ANA); National Civil Aviation Agency (ANAC); National Mining Agency (ANM); National Health Agency (ANS); National Health Surveillance Agency (ANVISA).

Source: Elaborated by the authors.

The sector of activity was classified as carried out by B3 S/A, which groups companies in the following sectors: industrial goods, communications, cyclical consumption, non-cyclical consumption, basic materials, oil and gas, health, information technology and public utility. As for the period analyzed, between 2017 and 2019, the companies were grouped to verify the existence of disclosure differences, including checking if there was an evolution in the amount of information reported by the companies.

4 ANALYSIS OF RESULTS AND DISCUSSION

4.1 Analysis of results

From the data obtained through *the checklist* of disclosure of the SAG, the qualitative analysis was initially carried out regarding the origin of the SAG received. The results are presented in Table 4. A priori, the following results refer to a sample of 353 observations,

representing 27.4% of the sample. That is, approximately a quarter of the Brazilian companies listed on the stock exchange receive some kind of government benefit, showing a growth of 18.7% in the number of companies benefited between 2017 and 2019.

Table 4
Origin of grants and government assistances

Origin of SAG	2017		2018		2019		2017-2019	
	Qty.	%	Qty.	%	Qty.	%	Qty.	%
Federal	51	47.7	40	33.6	45	35.4	136	38.5
State	30	28.0	50	42.0	60	47.2	140	39.7
Federal and State	23	21.5	21	17.6	15	11.8	59	16.7
Federal, State and Municipal	1	0.9	1	0.8	2	1.6	4	1.1
Not informed.	2	1.9	7	5.9	5	3.9	14	4.0
Total	107	100.0	119	100.0	127	100.0	353	100.0

Source: Research data.

From Table 4, it is observed that SAG have, mostly, state (39.8% of the sample) and federal (38.6% of the sample) origin, as well as identified in Loureiro *et al.* (2011) and Souza *et al.* (2018). In addition, it is verified that while there is a variation of -12% in the amount of SAG distributed by the federal entity, there is a variation of 100% in the amount of SAG distributed by the states. Cumulatively, 59 (16.8% of the sample) companies reported receiving SAG of federal and state origin and only 4 (1.1% of the sample) companies reported receiving resources from the three spheres of government. It is noteworthy, however, that despite receiving government resources, 13 (3.7% of the sample) companies did not inform the origin of these resources or could not identify them.

Later, in the case of qualitative information obtained with the study, Table 5 shows the frequency of terminologies used by companies in the dissemination of SAG (subsidy, tax incentive, donation).

Table 5
Terminology used in grants and government assistances

SAG terminology	2017		2018		2019		2017-2019	
	Qty.	%	Qty.	%	Qty.	%	Qty.	%
Subsidy	29	27.1	32	26.9	28	22.0	89	25.2
Tax incentive	55	51.4	60	50.4	76	59.8	191	54.1
Tax subsidy and incentive	21	19.6	21	17.6	18	14.2	60	17.0
Tax incentive and donation	2	1.9	6	5.0	5	3.9	13	3.7
Not informed	29	27.1	32	26.9	28	22.0	89	25.2
Total	107	100.0	119	100.0	127	100.0	353	100.0

Source: Research data.

The most frequent terminology was fiscal incentive throughout the analyzed period, which a total of 191 companies (54.1% of the sample) was observed, followed by subsidy with 89 companies (25.2% of the sample). The results show that there was a growth of 38.2% in the distribution of tax incentives, while there was a decrease of 3.5% in the distribution of subsidies. Finally, 59 companies (16.7% of the sample) reported receiving both types of SAG, subsidy and tax incentive, however without relevant variation in companies that used it. It was also found that 13 companies (3.7% of the sample) did not inform the SAG received.

Then, quantitative analyzes are introduced, the first being described in Table 6. In this, the difference of means is analyzed from two distinct groups of corporate governance: new market and other levels. The result shows the level of disclosure considering the two DSAG measures.

Table 6

SAG disclosure level from corporate governance

Corporate governance	Note	Disclosure level (DSAG7)			Disclosure level (DSAG3)		
		Mean	SD	t Test	Mean	SD	t Test
Other levels	241	0.463	0.012	-0.667	0.779	0.017	-1.286
New market	112	0.477	0.016		0.815	0.021	
Total	353	0.467	0.010		0.790	0.013	

Legend: DSAG7: Disclosure level considering the 7 indicators set out in CPC 07 (2008); DSAG3: Disclosure level considering the 3 indicators set out in CPC 07 R1 (2010). SD: Standard Deviation.

Source: Research data.

The results of the tests show that the difference in the disclosure level of SAG – considering the indicators laid down by CPC 07 (DSAG7) and the indicators laid down in CPC 07 R1 (DSAG3) – showed no statistically significant difference ($p < 0.10$). This means that the level of *disclosure* does not differ, on average, from corporate governance. The companies belonging to the new market had a mean *disclosure* of 47.7% (DSAG7) and 81.5% (DSAG3). Although the disclosure of information about SAG is mandatory, the companies do not perform in their completeness, corroborating with the Taveira study (2009), in which 47% of companies with a differentiated level of corporate governance disclosed unsatisfactorily or did not disclose information about SAG.

Table 7 shows the difference in mean disclosure level (DSAG7 and DSAG3) from two analysis groups: unregulated companies and companies regulated by federal regulatory agencies.

Table 7

SAG disclosure level from regulation

Regulation	Note	Disclosure level (DSAG7)			Disclosure level (DSAG3)		
		Mean	SD	t Test	Mean	SD	t Test
Not regulated	140	0.470	0.016	0.246	0.838	0.020	2.936 ***
Regulated	213	0.465	0.012		0.759	0.018	
Total	353	0.467	0.010		0.790	0.013	

Legend: *** represents a significance level of 1%.

Source: Research data.

From Table 7, it is verified that there is no statistically significant difference in the level of *disclosure*, considering all indicators of CPC 07 (2008) from the regulation ($p < 0.10$). However, the results show that there is a difference in the level of *disclosure* of SAG between regulated companies and other companies ($p < 0.01$). This means that regulated companies have lower levels of *disclosure* of SAG, with an average of 75.9%, when compared to other companies, with an average of 83.8%.

This result is opposed to the expected one, because the regulatory agencies (Table 3) act in the form of a public entity and have as a disciplinary function and control activities of certain sectors, it was assumed that regulated companies would present a better disclosure result. A possible explanation for this result could be the treatment that regulatory companies exercise for SAGs, and may not deal with this topic directly, since its disclosure is already regulated by CPC 07 (R1), thus, may not influence the performance of disclosures. An alternative would be in an opposite situation, assuming the existence of an internal control of SAGs regulation, being at the discretion of the regulated company to properly disclose the benefits. Both hypotheses are based on the fact that sampling spaces are divergent, since regulated companies represent approximately 40% of the sample space.

Subsequently, Table 8 shows the difference in averages of companies throughout the analysis period (2017-2020). For this data examination, the analysis of variance (ANOVA) was applied.

Table 8
SAG disclosure level from the period

Year	Note	Disclosure level (DSAG7)			Disclosure level (DSAG3)		
		Mean	SD	F Test	Mean	SD	F Test
2017	107	0.480	0.200	1.76	0.810	0.260	1.72
2018	119	0.440	0.180		0.760	0.260	
2019	127	0.480	0.180		0.800	0.240	
Total	353	0.470	0.180		0.790	0.250	

Source: Research data.

The results show that the disclosure level of SAG (*DSAG7* and *DSAG3*) is not statistically different ($p < 0.10$) over the period of analysis. The disclosure level of SAG during the analysis period was 47% (*DSAG7*) and 79% (*DSAG3*). These evidences suggest that the companies did not present a (de)growth in *the* disclosure level of information about the SAG received.

Subsequently, the same analysis was performed (analysis of variance – ANOVA) to verify the difference of mean level of *disclosure* from the economic sectors of B3 S/A. Table 9 shows the results of this test.

Table 9
SAG disclosure level from the sector

Sector	Note	Disclosure level (DSAG7)			Disclosure level (DSAG3)		
		Mean	SD	F Test	Mean	SD	F Test
Industrial goods	43	0.480	0.180	2.49 ***	0.870	0.250	4.69 ***
Communications	9	0.490	0.130		0.890	0.170	
Cyclic consumption	68	0.450	0.200		0.800	0.220	
Non-cyclic consumption	33	0.480	0.150		0.880	0.200	
Basic materials	45	0.540	0.180		0.850	0.240	
Oil and gas	8	0.590	0.090		0.920	0.150	
Health	20	0.370	0.170		0.770	0.310	
Information technology	6	0.500	0.200		0.890	0.170	
Public utility	121	0.450	0.190		0.690	0.250	
Total	353	0.470	0.180		0.790	0.250	

Source: Research data.

The results show that the level of *disclosure* of companies is distinct from the sectors for *DSAG7* ($p < 0.01$). Considering all the indicators (*DSAG7*), the companies have an average *disclosure* of 47%. It should be noted that the highest *levels* of *disclosure* were presented by the oil, gas and biofuels (59%) and information technology (50%) sectors. This result is in line with the results found in the study by Benetti *et al.* (2014), in which the sectors that obtained the best *disclosure* were Cyclic Consumption, Basic Materials and Public Utility. On the other hand, the lowest *level* of *disclosure* was reported by the Health Sector (37%).

The result presented by the oil and gas sector, with the highest *level* of *disclosure*, can be attributed to the fact that this sector is composed of only four companies that received SAG and, among them, Petrobras S/A stands out, which presents a better disclosure result at general levels. On the other hand, the result of the Health Sector, with the lowest *disclosure*, can be attributed to this sector because it is composed of more companies, many of them local and regional, such as health insurance companies and service providers, thus, having smaller market slices.

As only for the mandatory indicators (*DSAG3*), the companies had a disclosure average of 79%. In this, the oil and gas sector remains with a higher *level* of *disclosure*, with 92%. Other sectors remain close, with 89% *disclosure*: information and communication technology. The health sector, as well as in variable *DSAG7*, has a lower *level* of *disclosure*, of 77%.

4.2 Discussion

The findings of this research show that state public policies of SAG granting are majority in companies, mainly through subsidies related to the Tax on Circulation of Goods and Services (ICMS). The organizations are also benefited by the federal SAG, which allows the reduction of the Corporate Income Tax (IRPJ) and the Social Contribution on Net Income (CSLL). This finding highlights the relevance of state and federal entities in the transfer of SAG to companies, especially when considering that – even facing economic crises – government entities did not discontinue the granting of tax incentives, as demonstrated by Araújo *et al.* (2019).

In this study, annual compound growth is observed in the number of companies that received SAG, of 8.95%. Regardless of the reason for this empirical disclosure – at the initiative of companies or public entities – the literature has highlighted several contributions of SAG in companies, which include an effect on profit margins and added value (Rezende *et al.*, 2018), as well as in value creation (Assis Filho & Wickboldt, 2019).

The results of this study show that *the level of disclosure* does not differ from the levels of governance. The disclosure theory is based on the reduction of information asymmetry (Verrecchia, 2001) that, although there are other paths, can be achieved through good corporate governance practices. However, the results found diverge from the expectations of this work, since the companies with higher level of governance do not show significantly higher volume than the others.

The results also suggest that the level of *disclosure* does not change over time. This evidence may be related to the time lapse between the promulgation of the CPC in 2008 of its review in 2010 and the period of analysis of this study (2017-2019). In this interim, companies had enough time to adapt to the demands of the regulations and significant changes in *the level of disclosure* may not be expected.

The research findings indicate that companies operating in regulated sectors had a lower level of *disclosure* when compared to other companies. Concomitantly, it was verified that the degree of disclosure differs among the sectors, being a minority in public utility, a sector that incorporates electricity, water and sanitation. Therefore, it is noticed that this group was responsible for reducing the level of *disclosure* of information about SAG.

5 CONCLUSION

This research aimed to explore the differences in *SAG disclosure* in Brazilian publicly traded companies – in accordance with CPC 07 (2008) and CPC 07 R1 (2010) – from corporate governance, sectoral regulation, of the year and of the sector of activity. In addition, as a specific objective, the distribution of SAG was analyzed from the source of resources and the type of benefit. The study was conducted from a sample composed of 353 observations regarding publicly traded companies listed on Brasil Bolsa Balcão (B3 S/A) in the period between 2017 and 2019.

This study has achieved its objectives. As for the qualitative examination, a descriptive analysis was conducted of SAG from the origin and type of resources received by the companies. Regarding the origin, it was found that companies receive almost all resources of federal and state origin. In addition, the results show that more than half of the resources received by companies are due to tax incentives, followed by subsidies receipt.

As for the quantitative examination, the results show that *the level of disclosure* differs among the companies from regulation and sectors, however it is not distinct from corporate governance and the period of analysis. In summary, this study shows that the regulated companies present higher levels of disclosure and that the oil, gas and biofuels and health sectors presented, respectively, the highest and lowest levels of SAG disclosure.

This study has two implications. Firstly, it corroborates the existence of significant differences in the level of *disclosure* of SAG of Brazilian companies from the regulation and the sector, which allows the evaluation of *the disclosure* policies of these companies. Secondly, it reinforces the literature on SAG, since the studies have focused on analyzing the recognition and dissemination of SAG and, also, the background and consequences of SAG in Brazilian companies.

Finally, this study was limited to the publicly traded companies listed on B3 S/A in the period between 2017-2019, evaluating the significant differences in SAG from the sector of operation, the company under regulation, the level of governance and the period of analysis according to the disclosure items in CPC 07 (2008) and CPC 07 R1 (2010). Such differences have a more qualitative analysis, therefore, for future research, it is suggested, in addition to the extension of the period of analysis, the evaluation of the differences in the level of *disclosure* of SAG, from other aspects, especially regarding financial values, as the value received in SAG as a function of profit and revenue, to obtain indicators of efficiency of the stipends receipt, and depending on the total asset to identify if there is difference of receipt in relation to the size of companies, according to studies conducted by Juliet *et al.* (2013), Loureiro *et al.* (2011) and Saac and Rezende (2019).

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