



Responsible Editor: Rodrigo de Souza Gonçalves
Andrea de Oliveira Gonçalves
Associate Editor: Ducineli Régis Botelho
Evaluation Process: Double Blind Review pelo SEER/OJS

Corporate Governance and Profitability of Closed Entities of Complementary Pension Funds

ABSTRACT

Objective: This study analyzes the relationship between good corporate governance practices (access to information, content of published information and management structure) and the performance (measured by the profitability of the plans) of the Closed Entities of Complementary Pension Funds (Entidades Fechadas de Previdência Complementar - EFPC).

Method: The sample comprises 76 EFPCs ranked among the 89 publicly funded entities and the data were collected in the Annual Information Reports (Relatórios Anuais de Informação), statutes and information on the entities' websites and in the statistical statement published by the Brazilian Association of Closed Pension Funds for the year 2017. In order to test the research hypothesis, the Multiple Linear Regression method performed with the support of STATA® software.

Originality/Relevance: The relevance of EFPC is highlighted, a sector that has been growing in Brazil, mainly with the pension reform in the public and private sectors.

Results: The study's evidence does not support the acceptance of the established hypotheses, which foresee a positive and significant relationship between governance practices and profitability, considering as practices the access and content of information and the structure of governance bodies. It is conjectured that the level of information disclosure and / or the governance practices analyzed may have influenced the findings.

Theoretical/methodological contributions: Although the proposed relationships did not indicate statistical significance, the survey highlights the importance of good corporate governance practices in EFPC in order to achieve better results and fulfill obligations to stakeholders.

Keywords: Corporate Governance; Profitability; Closed Entities of Complementary Pension Funds.

Renata Mendes de Oliveira

Federal University of Santa Catarina, Santa Catarina, Brazil
E-mail: remendes.itba@gmail.com

Ilse Maria Beuren

Federal University of Santa Catarina, Santa Catarina, Brazil
E-mail: ilse.beuren@gmail.com

Ernesto Fernando Rodrigues Vicente

Federal University of Santa Catarina, Santa Catarina, Brazil
E-mail: ernesto.vicente@ufsc.br

Received: March 13, 2020
Revised: September 3, 2020
Accepted: December 2, 2020
Published: April 27, 2021



How to Cite (APA)

Oliveira, R. M., Beuren, I. M., Vicente, E. F. R. (2021). Corporate Governance and Profitability of Closed Entities of Complementary Pension Funds. *Journal of Accounting, Management and Governance*, 24 (1), 55-71.
http://dx.doi.org/10.51341/1984-3925_2021v24n1a4

1 INTRODUCTION

The Closed Complementary Pension Entities (EFPC), also known as pension funds, have as main purpose to provide a financial reserve that will generate in the future a retirement, in order to sustain the same socioeconomic condition to the employee in which he was in productive aptitude (Coelho & Camargos, 2012). As future and current pensioners are passive owners of the EFPC equity, it is important to adopt corporate governance practices to reduce probable agency conflicts (Teixeira, 2015).

Research, such as Azeez (2015), shows the importance of aligning the interests of business agents and adhering to good corporate governance practices, since they contribute to a lower agency conflict between owners and managers and, consequently, a better performance of the company. It is argued, however, that good governance practices should go beyond the regulations in force in a country, covering disclosures of national and international entities, in addition to regulators and supervisors in the sector (Falcão & Alves, 2018).

At the international level, some research has been developed considering aspects of governance in the context of pension fund entities, highlighting the analysis of agency issues and management styles of benefit funds (Besley & Prat, 2003; Cocco & Volpin, 2007; Martí-Ballester, 2020), analysis of administrative costs or investments in pension funds (Bikker & Dreu, 2009; Defau & De Moor, 2020), and governance practices (Tan & Cam, 2013; Clark & Urwin, 2016).

In the Brazilian context, the research that addressed corporate governance within the scope of the EFPC was directed to identify governance practices aligned with the determinations of the National Superintendence of Supplementary Pension (PREVIC), such as the studies of Lima, Oliveira, Ponte and Rebouças (2015) and Falcão and Alves (2018). Other studies aimed at the analysis of EFPC, focusing on aspects such as the perception of professionals regarding the accounting standards applicable in these entities (Pereira & Niyama, 2016) or the evaluation of financial efficiency (Diniz & Corrar, 2017).

In light of the above, it is considered that good corporate governance practices tend to influence different aspects of the organization. However, it is observed as a research gap the often conflicting results of the studies regarding their effects on the results of these entities. Thus, the objective of this research is to analyze the relationship between governance practices (access to information, content of published information and management structure) and performance (measured by the profitability of plans) of EFPC.

This research can contribute to the literature on corporate governance and its different implications in EFPC or pension funds, considering the results not always convergent of previous studies (Ammann & Zing, 2010; Kowalewski, 2012), especially when considering the effect of good governance practices in the context of these entities and their relationship with the profitability of the plans.

For organizational practice, this research can contribute by considering the relevance of corporate governance in the daily life of these organizations and instigating their regulatory bodies. For the practice of organizations contributes by allowing them to observe adherence to ethical principles related to business (Guo & Kumara, 2012), besides being crucial for building confidence in the market, attracting investors (Buallay, Hamdan & Zureigat, 2017). The regulatory bodies of these entities can make use of the research results in order to ensure their continuity.

When considering the context of supplementary pension entities, in this case, verifying corporate governance practices and their interactions with performance, the social issue of trust is reinforced, especially due to the fact that such entities are responsible for the administration of third-party resources (Lopes, Kataoka, Ribeiro Filho & Pederneiras, 2010).

Standing out mainly the provision of security in relation to obtaining tangible and intangible income, as a well-known source of future income (Chohan, 2017).

2 REVIEW OF THE LITERATURE AND RATIONALE OF THE HYPOTHESIS

2.1 Corporate Governance in Closed Complementary Pension Entities

According to the Ministry of Social Security, in Brazil the pension includes three categories: General Social Security System (RGPS), which includes all individuals who contribute to the National Institute of Social Security (INSS); Own Social Security Schemes (RPPS), which serves public servants occupying effective positions; and Supplementary Pension, which is operated by supplementary pension entities, which can be opened or closed.

Silva (2009) points out that any citizen has access to some Open Complementary Pension Entity (specific company or insurance company) that offers benefit plans capable of generating income after a contribution period. The Closed Complementary Pension Entities (EFPC) are non-profit entities, accessible only to employees of a company, groups of companies or public servants (federal, state, municipal and federal district), called sponsors, which constitute the reserves that will enable the granting of retirement benefits, pensions, among others.

In 2002, the Organization for Economic Co-operation and Development (OECD) published a document entitled Guidelines for Pension Fund Governance, which presents guidelines on aspects such as structure and mechanisms for governance practices to be adopted by pension funds. In 2009, the document was revised and republished. Among the aspects addressed, we highlight the identification of responsibilities, adequacy, governance body, accountability, internal controls, reports and disclosure.

In Brazil, governance in EFPC began to be discussed with greater emphasis from the publication of Resolution No. 13 of October, 1, 2004, by the Supplementary Pension Management Board (CGPC), which has been based on governance principles, rules and practices that should be followed. The establishment of such directions aimed to increase the credibility of the institutions and protect the interests of those involved. Paragraph 1 of Article 1 of the Resolution establishes that the entity must meet the standards of economic-financial and actuarial security, aiming to preserve the liquidity, solvency and balance of benefit plans, in isolation, and of the EFPC itself, in the set of its activities. The Resolution promulgates that it is the responsibility of the executive board, the deliberative council, the supervisory board and other governance bodies, the development of an internal culture that emphasizes the importance of internal controls at all hierarchical levels.

Internal control and the search for clarity and transparency in the financial statements of pension funds are justified, according to Lopes et al. (2010, p. 156), due to the fact that the primordial sources of resources of these entities are linked to the "concepts of citizenship and social responsibility, not always constant and predictable". They also argue that, according to Araújo (2005), this "determines the need to find ways of management that make them maintain their services and thus ensure continuity" (Lopes et al., 2010, p. 156).

In the search for greater transparency, the CGPC published Resolution No. 23 of December 6, 2006, which provides, among other aspects, on procedures to be observed by the EFPC in the dissemination of information to participants and assisted by the social security benefit plans they administer. The Resolution establishes that entities shall disclose an annual report containing at least information relating to the consolidated financial statements, investment policy, actuarial opinion of the benefit plan, expenses of the benefit plan, changes

in statute and regulation that occurred in the year of the report and other documents provided for in previc's act.

However, Falcão and Alves (2017) warn that legal norms are not enough to actually protect participants from conflicts of interest that may eventually happen between sponsors, borrowers and fund managers. The practices can be disclosed by international and national entities and industry regulators, such as PREVIC, which disseminates recommendations on corporate governance in EFPC and oversees pension funds, through a guide prepared in 2012 (Falcão & Alves, 2017).

In line with items 11 and 12 of previc's governance guide, good practices are converted into principles and recommendations, which allows the harmonization of the interests of the agents involved, i.e., participants, sponsors and EFPC leaders, seeking to preserve the right of participants and execution of the social security contract. The guide also reinforces the above by Resolution No. 13/2004 of the CGPC, by establishing the need for transparency and dissemination of information.

2.2 Effects of Corporate Governance on Organizational Performance

Different research on corporate governance has its foundation supported by the Agency Theory, which addresses issues of conflicts of interest between management and owners due to the separation of a ownership and control (Jensen & Meckling, 1976). This theory indicates that good governance practices of the organization provide better performance and greater appreciation of the organization due to lower agency costs.

The proposition of good governance practices within pension funds acts towards minimizing conflicts of interest that may exist between (main) members and fund managers (agents), in the search for the return and protection of the principals' savings (Chohan, 2017). Both are intertwined and may be affected by conflicts of interest between principal and agent.

Corporate governance and its effects on organizational performance are themes of recurrent debate in the literature, both in international and national studies. In the Chinese context, Sami, Wang and Zhou (2011) found a positive and significant correlation of the measure of corporate governance in organizational performance. Ulum, Wafa, Karim and e Jamal (2014) also found that the effectiveness of the corporate governance system is critical to improving organizational performance when analyzing the context of insurers at Labuan International Business and Financial Center.

After controlling for the variables entity size, growth, dividend payment, age and leverage, Tariq and Abbas (2013) found evidence of positive and significant impact of compliance on performance, measured by Return on Asset (ROA), Return on Equity (ROE) and Return on Capital Employed (ROCE) in Pakistani organizations. Also using the ROA and ROE indicators as performances measures, Rose (2016) found a significant and positive relationship between performance and compliance with corporate governance in Danish organizations.

In the research conducted by Pillai and Al-Malkawi (2018), other results showed that governance variables, such as government participation, type of audit, board size, corporate social responsibility and leverage, significantly affect organizational performance in most of the countries that make up the investor fraternity in the Gulf Cooperation Council. The performance was measured by Tobin's ROA and Q.

Almeida, Klotzle and Pinto (2013) developed a research with similar purpose in Brazilian organizations in the electricity sector. Through the results it was possible to prove the existence of a positive and significant relationship between the composition of the board of directors (governance) and organizational performance (ROA, ROE and Q of Tobin).

Catapan and Colauto (2014) observed a relationship between the corporate governance index and performance, considering Tobin's ROA and Q, of companies listed in Brazil, Stock Exchange, Over the Counter (B3) in the period 2010-2012. Pereira and Martins (2015) also investigated the performance by Tobin's ROA and Q, and found that better levels of governance positively influence the performance of (non-financial) companies listed in B3 during a period of financial crisis.

Nascimento, Angotti, Macedo and Bortolon (2018) formulated hypotheses about the relationship between corporate governance, risk and indebtedness and its impacts on the financial performance and value of organizations listed in B3. The results supported the hypothesis that predicted a positive relationship between the level of corporate governance and financial performance, measured by the earnings before interest, taxes, depreciation and amortization (EBITDA) indicators on revenue, operating cash flow (FCO) weighted by Total Assets, Asset Turnover, ROE and ROA (for redundancy analysis only).

Based on literature's review and previous theoretical-empirical studies, the following research hypothesis was formulated:

H1: The adoption of corporate governance practices, in the aspects of access and content of information (H1a) and structure of governance bodies (H1b), has a positive and significant relationship with organizational performance.

The definition of the quality of corporate governance can take hold through different governance indices, such as, considering elements based on regulatory provisions or factors related to the governance regime of the organization's country of origin (Bebchuk, Cohen & Ferrell, 2009; Starks & Wei, 2013).

To determine the adoption of corporate governance practices, the three practices proposed in the study by Lima et al. (2015), i.e. access to information, content of published information and management structure. To this end, they made a checklist that had as given the CVM's Corporate Governance Recommendations; in the IBGC Code of Best Practices; the MPS EFPC Governance Best Practices Guide; Supplementar Law No. 109/2001 (n° CGPC Resolutions No. 05/2002, No. 13/2004, No. 23/2006); and SPC Normative Instruction No. 14/2007.

In its turn, the performance of Closed Complementary Pension Entities (EFPC) was measured by the profitability of the plans in the study by Lima et al. (2015). To test the theoretical model, the Multiple Linear Regression technique was performed.

3 METHODOLOGICAL PROCEDURES

3.1 Selection of Population and Sample

The EFPC operating in Brazil make up a total of 306 entities, of which 196 are private sponsorship, 89 are public sponsorship (37 federal, 50 state and 2 municipal) and 21 sponsor institution, as provided by the National Superintendence of Supplementary Pension (PREVIC, 2018). Due to the large number of listed companies, we chose to make a clipping of this population intentionally and non-probabilisticly, analyzing public sponsorship entities.

The choice is based on the fact that public sponsorship entities are more concerned with management, having more judicious selection processes of members for statutory bodies, either by sponsors or political indication or by taxpayers (Nascimento, Frauches, Chan & da Silva, 2014). Another justification for the selection of this sample is due to the fact that the EFPC present evidence that public sponsorship funds adopt best governance practices, with emphasis on evidence of elements of a mandatory nature (Lima et al., 2015; Teixeira, 2015).

Of the 89 EFPC, six were considered forbeing in the process of liquidation, one for being in the process of liquidation due to the transfer of management to another plan and six for not presenting information referring to the 2017 fiscal year, an exercise analyzed in the present study. Thus, the final sample of the research comprised 76 EPFC, according to Table 1.

Table 1
Closed Complementary Pension Entities Analyzed

AGROS	ECONOMUS	FUNCEF	PREVES
ALBAPREV	ELETRA	FUNDACAO COPEL	PREVI/BB
ALPHA	ELETROCEEE	FUNDACAO CORSAN	PREVICEL
BANESES	ELETROS	FUNDAÇÃO LIBERTAS	PREVINORTE
BANRISUL/FBSS	ELOS	FUNDIAGUA	PREVSAN
CAFBEF	FABASA	FUNPRESP-EXE	REAL GRANDEZA
CAGEPREV	FACEAL	FUNPRESP-JUD	REFER
CAPAF	FACEB	FUSESC	REGIUS
CAPEF	FACEPI	GEIPREV	RJPREV
CAPESESP	FACHESF	INFRAPREV	RS-PREV
CASANPREV	FAECES	ISBRE	SABESPREV
CELOS	FAPA	METRUS	SAO FRANCISCO
CENTRUS	FAPECE	NUCLEOS	SCPREV
CERES	FAPES	PETROS	SERGUS
CIBRIUS	FIOPREV	PORTUS	SERPROS
CIFRAO	FIPECQ	PRECE	SIAS
COMPESAPREV	FORLUZ	PREVBAHIA	SILIUS
DERMINAS	FUMPRESC	PREVBEP	SP-PREVCOM
DESBAN	FUNCASAL	PREVCOM-MG	SUPRE

Source: Search data.

3.2 Regression Model and Presentation of Variables

This study employs a multiple linear regression model to examine the relationship between good corporate governance practices and corporate performance. Multiple linear regression considers the inclusion of more than one explanatory variable in so that one can study the behavior of a given phenomenon (Fávero & Belfiore, 2017). In this research, the following regression model was used to test the hypothesis:

$$RENT_{it} = \alpha_{it} + \beta_1 DISCLOSURE_{it} + \beta_2 ESTGOV_{it} + \beta_3 VOL_{it} + \epsilon_{it} \tag{Equation 1}$$

Where: RENT is the profitability of the plans; DISCLOSURE is the variable that indicates aspects of access and content of information related to corporate governance; ESTGOV is the variable that represents the structure of governance bodies; VOL represents the volume of resources invested; and ϵ is the term that represents the random error.

The profitability of the plans (RENT) represents the dependent variable of the study and was collected from the analysis of the Annual Information Report (RAI) of the EFPC, referring to the fiscal year 2017, published on the website of each entity. The profitability values were extracted from sections intended for the disclosure of information related to the plans or in messages disclosed by the board, and in cases where the entities had more than one type of plan was considered the average profitability, given by the sum of the different values of profitability by type of plan, divided by the number of types of plans.

The information related to the access and content of governance information (DISCLOSURE) and governance structure (ESTGOV) are independent variables that have

been determined considering the analysis of information made available in the Annual Information Report, the statute and the website of each entity. The checklist adopted was developed by Lima et al. (2015) and presents 36 items, of which 6 are intended to observe practices related to access the information, 23 related to the content of published information and 6 to verify the structure of management, as evidenced in Table 2.

Table 2

Corporate governance practices

Categories	Practices	Practices' description (subcategories)
Access to information	PPO 1	Does the entity make the Annual Report (AR) available on its website?
	PV 2	Does the entity make a Code of conduct and / or ethics available on its website?
	PV 3	Does the entity have a governance manual on its website?
	PPO 4	Does the entity make the Statute available on its website?
	PPO 5	Does the entity make the Regulations for plans available on its website?
	PV 6	Does the entity make the Internal Rules available on its website?
	PV 7	Does the entity provide an ombudsman or other form of electronic contact on its website?
Content of published information	PPO 8	Does the RA contain the equity statement?
	PPO 9	Does the RA contain investment policies?
	PPO 10	Does the RA contain actuarial assumptions?
	PPO 11	Does the RA contain the investment statement?
	PPO 12	Does the RA contain segregated information about benefit plan expenses?
	PV 13	Does the RA contain environmental information?
	PV 14	Does the website / RA refer to the existence of an internal audit?
	PV 15	Does the website / RA refer to the existence of an audit committee?
	PV 16	Does the website/RA disclose processes on monitoring or risk management?
	PPO 17	Does the website/RA disclose actuarial evaluation results statement - DRAA?
	PV 18	Does the website/RA disclose the opinion of independent auditors?
	PV 19	Does the website/RA disclose the opinion of the supervisory board?
	PV 20	Does the website/RA disclose information about directors' remuneration (or remuneration policies)?
	PV 21	Does the website/RA disclose information about managers' remuneration (or remuneration policies)?
	PV 22	Does the website/RA provide information on investment advisory committees?
	PV 23	Does the website/RA provide information on risk advisory committees?
	PO 24	Does the Statute have the composition of the Board of Directors?
	PO 25	Does the Statute have the composition of the Deliberative Council?
	PO 26	Does the Statute have the composition of the Fiscal Council?
	PO 27	Does the Statute disclose information on the activities/competences/responsibilities of the councils?
	PO 28	Does the statute contain the term of office of the members of the bodies?
	PV 29	Does the statute contain the method of convening council meetings?
	PV 30	Is there an authorization in the statute for any councillor to convene necessary meetings when the person in charge does not do so?
Structure of governance bodies	PO 31	According to the statute, should the Supervisory Board have at least one third of the vacancies composed of participants and assisted?
	PO 32	According to the statute, should the Deliberative Council have at least one third of the vacancies composed of participants and assisted?
	PV 33	Does the deliberative council have between 5 and 11 directors?
	PV 34	Does the supervisory board have between 3 and 5 directors?
	PV 35	The term of office of the directors between 1 and 2 years?
	PV 36	Are the positions of Executive Director and Chairman of the Deliberative Board held by different people?

Source: Lima et al. (2015).

For the measurement of the indicator it was considered dummy for each of the analyzed elements, where 1 represents the presence of the observed information or the agreement with the question addressed and 0 indicates absence. At the end, the total score of the items attended was summed up to determine the percentage of compliance with good governance practices. The observation comprehended elements of mandatory disclosure, partially mandatory and voluntary, according to notes presented by regulations, such as the IBGC Code of Best Practices, PREVIC Manual, Complementary Law No. 109/2001, CGPC Resolutions No. 05/2002, No. 13/2004 and No. 23/2006, and SPC Normative Instruction No.14/2007.

The amounts related to the volume of resources invested (VOL) represent the investments and were extracted from the statistical consolidated published by the Brazilian Association of Closed Complementary Pension Entities (ABRAPP). For the purposes of normalization of the data in the regression, the natural logarithm is applicable to the value of the investment. The data considered refer to the fiscal year 2017. The adoption of VOL as a control variable comes from the fact that it is a proxy for size, an aspect considered in previous studies such as Tariq and Abbas (2013).

4 RESULTS AND DISCUSSIONS

4.1 Descriptive Statistics

Initially, descriptive statistics of the variables of profitability, access and content of governance information, governance bodies structure and measures of the volume of resources invested in the EFPC analyzed, are presented, according to Table 3.

Table 3

Descriptive statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
RENT	76	0.1089	0.1789	0.0741	0.1517
DISCLOSURE	76	0.7491	0.6637	0.6000	0.8667
ESTGOV	76	0.8202	0.5940	0.6667	1
VOL	76	13.5294	2.0713	7.5396	18.0882

Source: Search data.

In Table 3, the indicator of adoption of governance practices shows that the EFPC adopt on average 74.91% of the observed elements of access and content of published information (DISCLOSURE). The maximum disclosure value of this information represents 86.67%, which indicates disclosure of 26 of the 30 items observed. The highest disclosure was observed in Funpresp-JUD, Previ/BB, Real Grandeza and Refer. The EFPC that showed the least were Capaf, which attended 18 of the 30 items observed (60%), followed by Faeces and Prevsan, which attended 19 of the 30 items observed (63.33%)

With regard to items related to the structure of governance bodies (ESTGOV), the EFPC serve on average 82.01% of the elements presented in checklist. Of the 76 EFPC analyzed, only Agros and Eletra meet 100% of the six items proposed for ESTGOV. Cageprev, Facepi, Faeces, Fapece, Fumpresc, Infracprev, Prevbep and RS-Prev meet 66.67% of what is expected, representing four of the six items observed.

The average profitability of companies is 10.89%. The EFPC that obtained the highest profitability was Celos (15.17%), followed by Agros (15.15%) and Previ/BB (14.85%). At the other extreme, the EFPC with the lowest profitability were Capesesp (7.41%), Derminas (8.14%) and PrevBahia (8.32%). In general, the FPS analyzed obtained good profitability, considering that in several cases they exceeded the actuarial goal established by the entities.

In addition, they represent higher values than savings indicators (6.16%), IPCA (2.95%), INPC (2.07%) INPC+4% (6.15%) for the year ended December 2017, the indicators of which were used to compare the profitability of the EFPC in a statistical report published by the Subsecretariat of the Supplementary Pension Scheme/ Secretary of Social Security of the Ministry of Finance.

Finally, the volume of resources invested presented an average of 13.53, with variation between the minimum and maximum values very discrepant. These discrepancies are justified by the fact that entities of different sizes have been observed, which shows that there are investments with high values, which even occupy the top of the largest EFPC of public sponsorship (e.g.: Forluz, Funcef and Petros) compared to others with low investments (e.g.: PrevBahia, Prevcom-MG and SCprev).

4.2 Regression Results

In the regression analysis, Fávero and Belfiore (2017) point out some necessary assumptions. The first assumption is the normality of the residues, in which the Jarque-Bera and Shapiro-Francia tests were applied, the results of which are shown in Table 4. It is noteworthy that all the tests presented here were developed with the support of stata software®.

Table 4

Data normality tests

<i>Jarque-Bera (normalitytest)</i>	3.206 Chi (2)	0.2013			
<i>Jarque-Bera (testfor H0): normality</i>					
<hr/>					
Shapiro-Francia W' (test for normal data)					
Variable	Obs	W'	V'	z	Prob>z
Resid1	76	0.9732	1.952	1.299	0.0970

Source: Search data.

According to Table 4, normality tests show that there are no problems with the normal distribution of residues from the research data (p-value = 0.2013). Thus, the data present statistical evidences that lead to non-rejection of the null hypothesis (p-value>0.05).

The second assumption of regression is the lack of multicollinearity of the explanatory variables (Fávero & Belfiore, 2017) for which they recommend the application of the Variance Inflation Factor (VIF) test. Values for the VIF greater than 4 are considered high, representing a Tolerance of 0.25, which indicates a percentage of shared variance between a given explanatory variable and the others of 0.75. According to Table 5, the VIF values found are 1.27 (DISCLOSURE), 1.24 (ESTGOV) and 1.04 (VOL), which indicates no multicollinearity.

Table 5

VIF Test

Variables	VIF	1/VIF
DISCLOSURE	1.27	0.7847
ESTGOV	1.24	0.8049
VOL	1.04	0.9623

VIF medium = 1,19

Source: Search data.

The third assumption of regression refers to the absence of heteroscedasticity (Fávero & Belfiore, 2017), which can be evaluated by the Breusch-Pagan/Cook-Weisberg test. According to Table 6, the established model presents heteroscedasticity problems considering

p-value = 0.0337. It is emphasized that generally research in the field of accounting adopts a p-value >0.05.

Table 6

Heteroscedasticity test

<i>Breusch-Pagan / Cook-Weisberg</i> (Heteroscedasticity test)	
Ho: Constant variance	
Variables: adjusted values of var3	
chi2(1)	4.51
Prob > chi2	0.0337

Source: Search data.

Table 7 shows the values obtained in the regression for profitability in relation to the variables of governance and volume of resources invested. To correct the problem of heteroscedasticity, the model with robust standard error was adopted.

Table 7

Regression results

					Observations' number	76
					F (3, 72)	6.74
					Prob > F	0.0005
					R-square	0.1630
					Root MSE	0.0167
RENT	Coefficient	Robust Standard Error	t	P> t	[95% confidence interval]	
DISCLOSURE	0.0127	0.0343	0.37	0.712	-0.0557	0.0812
ESTGOV	0.0286	0.0366	0.78	0.437	-0.0444	0.1017
VOL	0.0030	0.0009	3.41	0.001	0.0013	0.0048
_cons	0.0348	0.0342	1.02	0.312	-0.0333	0.1029

Source: Search data.

Table 7 shows that the only significant variable represented the volume of resources invested (VOL), considering a p-value > 0.01. It is also observed that the relationship between the explanatory variables and the dependent variable was positive, even for the variables DISCLOSURE and ESTGOV, which did not present significance. It is also noted that the coefficient of determination was low, showing that only 16.30% of the variation in profitability is explained by the explanatory variables, which indicates the need to review the variables of the proposed model.

In addition, Spearman's correlation analysis was analyzed between corporate governance practices and the variables asset value (ATIVO_LN) and number of participants (PART_LN), both transformed into natural logarithm, illustrated in Table 8. The corporate governance practices were segregated into voluntary (P_VOLUNT), partially mandatory (P_PARCIAL) and mandatory (P_OBRIG), as proposed in the study by Lima et al. (2015).

Table 8

Spearman correlations

	P_VOLUNT	P_PARCIAL	P_OBRIG	ATIVO_LN	PART_LN
P_VOLUNT	1.0000				
P_PARCIAL	0.0420	1.0000			
P_OBRIG	.	.	1.0000		
ATIVO_LN	0.4270*	0.1894	.	1.0000	
PART_LN	0.3719*	0.1802	.	0.6090*	1.0000

Note: Significant correlation to the level of *0.01.

Source: Search data.

It's observed in Table 8, that voluntary practices present a positive and significant correlation, at the level of 1%, with the variables asset value and number of participants. Thus, the higher the asset and the number of participants, the higher the score obtained by the EFPC in relation to compliance with voluntary practices. There is also significance in the relationship between asset value and number of participants, which indicates that the EFPCs with larger assets tend to be in those with a higher number of participants.

The checklist adopted had twenty items of a voluntary nature, nine partially mandatory and seven mandatory. In general, all EFPC showed items of a partially mandatory and mandatory nature, with the exception of three entities that did not show at least one of the partially obligatory items, relating to the availability of the statute and regulation of the plans on the entities' website.

None of the EFPC presented all items of a voluntary nature. The highlights are Eletra, Funpresp-JUD, Previ/BB, Real Grandeza and Refer, which presented 75% of the twenty items. Copaf and Faeces disclosed only 35% of items of a voluntary nature. The items of a less disclosed nature are related to environmental information and an audit committee information in the annual report. Among the most observed items is that the supervisory board has between three and five directors and the statute includes the observation that any counselor can convene meetings when this is not done by the person in charge.

4.3 Discussion of Results

The results of the research do not present sufficient evidence to accept the established hypotheses, which suggest the existence of a positive and significant relationship between governance practices and profitability, considering access and content of information (H1a) and structure of governance bodies (H1b). It is believed that the absence of significance for the proposed relationships may result from the checklist used, also pointed out by Catapan, Colauto and Barros (2013).

This finding is consistent with that observed in the study by Nascimento et al. (2014), which found low adherence to the proposed indicator, a fact that was attributed to the need for greater regulation of the sector in relation to transparency and disclosure rules. Birth et al. (2014) also found adherence to the assumptions of EFPC 's good corporate governance practices public sponsorship.

Despite the support found for the proposition of a positive relationship between the adoption of corporate governance practices and performance, some previous studies indicated a lack of evidence of a significant relationship between the variables observed. Fallatah and Dickins (2012), who analyzed companies listed on the Saudi Arabian Stock Exchange, noted that corporate governance and company performance, measured by return on assets (ROA), were unrelated. The same is observed in the study by Catapan et al. (2013), pointing out that there is no evidence of statistically significant effect of the corporate governance index on all performance variables analyzed.

In addition to the absence of evidence of a significant relationship between the governance index and performance, some have pointed out that there is a partial relationship. Macedo and Corrar (2012) found only partial indication of performance superiority of companies that adopt corporate governance practices, when analyzing companies in the electricity distribution sector, since the relationship was verified in only one of the periods analyzed. Sheikh, Wang and Khan (2013) also observed partial relationship, since the results indicated that only the variable size of the board has a positive relationship with performance, while the variables presence of external directors and management property are negatively related to performance.

It was also believed that the relationship between governance practices and performance can be negative. Azeez (2015) observed, among other findings, that there are variables of corporate governance that have a negative relationship with performance, such as the size of the board. The research developed by Freitas, Silva, Oliveira, Cabral and Santos (2018) revealed, among other aspects, the existence of a significant but negative relationship between corporate governance and performance.

The results of the studies compared to the discussion of the findings of the present study reveal non-convergent situations regarding the relationship of variables of corporate governance and organizational performance. Thus, the results of this research contribute to the expansion of knowledge about corporate governance practices that may or may not have effects on the accounting and/or market performance of Closed Complementary Pension Entities (EFPC). This reveals the need for greater regulation of the sector regarding the rules of transparency and disclosure, with the following views on the EFPC 's compliance with good corporate governance practices (Nascimento et al., 2014).

5 FINAL CONSIDERATIONS

This study analyzed the relationship between good corporate governance practices (access to information, content of published information and management structure) and performance (measured by the profitability of plans) of EFPC. The results of the study did not confirm a positive and significant relationship between governance practices and profitability, which may result from factors such as the selection of items the checklist used in this study.

The literature review also does not present conclusive results regarding the relationship between corporate governance and organizational performance, since some studies found a positive relationship (Sami et al., 2011; Almeida et al., 2013; Ulum et al., 2014; Pereira & Martins, 2015; Rose, 2016; Nascimento et al., 2018), while others did not find a positive relationship, at least not over the period analyzed (Macedo & Corrar, 2012; Catapan et al., 2013; Vilhena & Camargos, 2015; Freitas et al., 2018).

The results of the research contribute to the literature by relating corporate governance with the profitability of The EFPC plans, since national and international research has focused their efforts on the direction of management analysis and governance practices in these entities (e.g., Lima et al., 2015; Clark & Urwin, 2016; Falcão & Alves, 2018; Martí-Ballester, 2020).

The relevance of the results of the study to management practices contribute to the adoption of good corporate governance practices by the EFPC, because they can contribute to the mitigation of the abusive use of assets (Souto & Musalem, 2012), so as not to compromise the fulfillment of present and future obligations of the entity with pensioners. The complexity of the objectives of the EFPC, which may cover capital protection or cash flow disbursements in restricted situations, reinforces the need for a good governance and account-providing structure (Chohan, 2017).

However, the results of the research require parsimony due to limitations of a sample and temporal nature, since the study was limited to analyzing public sponsorship entities and using the financial statements of a single period, the fiscal year of 2017. The adoption of checklist is also a limitation, considering that it does not cover all possible elements of corporate governance, or even by the way the text of the same was written. In addition, it is important to consider the subjectivity present in the interpretation or difficulties of access to certain information at the time of data collection, especially with regard to governance items.

In this sense, future research may contemplate a longer time period in order to compare results over time. Other research instruments can be adopted for data collection, in

order to assist in the identification of relevant information from the EFPC. It is also recommended the development of research that evidences interactions with the adoption of other performance measures (ROA, ROI, ROE, Tobin's Q). Other ways of identifying corporate governance practices can be used, considering isolated variables, such as separation between CEO and Chairman, proportion of non-executive directors on the board, and board size.

REFERENCES

- Almeida, R. S., Klotzle, M. C., & Pinto, A. C. F. (2013). Composition of the Board of Directors in the Brazilian electricity sector. *Revista de Administração da UNIMEP*, 11(1), 156-180.
- Ammann, M., & Zingg, A. (2010). Performance and governance of Swiss pension funds. *Journal of Pension Economics & Finance*, 9(1), 95-128. <http://dx.doi.org/10.2139/ssrn.1324708>
- Araújo, O. C. (2005). Accounting for Third Sector Organizations. São Paulo: Atlas.
- Brazilian Association of Closed Supplementary Pension Entities. (2017). Statistical Consolidated-December. <http://www.abrapp.org.br/Paginas/consolidadoestatistico.aspx>.
- Azeez, A. A. (2015). Corporate governance and firm performance: Evidence from Sri Lanka. *Journal of Finance*, 3(1), 180-189. <http://dx.doi.org/10.15640/jfbm.v3n1a16>
- Bebchuk, L., Cohen, A., & Ferrell, A. (2009). What matters in corporate governance?. *The Review of Financial Studies*, 22(2), 783-827. <https://doi.org/10.1093/rfs/hhn099>
- Besley, T. J., & Prat, A. (2003). Pension fund governance and the choice between defined benefit and defined contribution plans. *CEPR Discussion Paper* n. 3955. SSRN: <https://ssrn.com/abstract=436991>
- Bikker, J. A., & De Dreu, J. (2009). Operating costs of pension funds: The impact of scale, governance, and plan design. *Journal of Pension Economics & Finance*, 8(1), 63-89. <https://doi.org/10.1017/S1474747207002995>
- Brazil. Ministry of Social Security. (2012). PREVIC Guide: Best Governance Practices for Closed Private Pension Plans. Brasilia. <http://www.previc.gov.br/central-de-conteudos/publicacoes/guias-de-melhores-praticas/melhores-praticas-de-governanca.pdf/>
- Brazil. CGPC Resolution No. 13, of October 1, 2004. Establishes principles, rules and practices of governance, management and internal controls to be observed by the Closed Supplementary Pension Entities - EFPC. <http://sislex.previdencia.gov.br/paginas/72/MPS-CGPC/2004/13.htm>
- Brazil. CGPC Resolution No. 23, of December 6, 2006. Provides for the procedures to be followed by closed supplementary pension entities in the disclosure of information to participants and beneficiaries of the social security benefit plans they administer, and other measures. <http://sislex.previdencia.gov.br/paginas/72/MPS-CGPC/2006/23.htm>
- Buallay, A., Hamdan, A., & Zureigat, Q. (2017). Corporate governance and firm performance: Evidence from Saudi Arabia. *Australasian Accounting, Business and Finance Journal*, 11(1), 78-98. <http://dx.doi.org/10.14453/aabfj.v11i1.6>
- Catapan, A., & Colauto, R. D. (2014). Corporate governance: An analysis of its relationship with the economic and financial performance of companies listed in Brazil in the years 2010–2012. *Contaduría y Administración*, 59(3), 137-164. [https://doi.org/10.1016/S0186-1042\(14\)71268-9](https://doi.org/10.1016/S0186-1042(14)71268-9)
- Catapan, A., Colauto, R. D., & Barros, C. M. E. (2013). The relationship between corporate governance and the economic and financial performance of publicly traded companies in

- Brazil. *Revista Contabilidade, Gestão e Governança*, 16(2), 16-30.
- Chohan, U. W. (2017). Pension fund regulation and governance. *Global Encyclopedia of Public Administration, Public Policy, and Governance*. https://doi.org/10.1007/978-3-319-31816-5_3474-1
- Clark, G. L., & Urwin, R. (2016). Best-practice pension fund governance. In: *Asset Management* (pp. 295-322). Palgrave Macmillan, Cham.
- Cocco, J. F., & Volpin, P. F. (2007). Corporate governance of pension plans: The UK Evidence. *Financial Analysts Journal*, 63(1), 70-83. <https://doi.org/10.2469/faj.v63.n1.4409>
- Coelho, N. N. A., & Camargos, M. A. (2012). Investments in private pension plans: A comparative analysis with other options for financial investments in Brazil. *Contextus. Revista Contemporânea de Economia e Gestão*, 10(2), 07-24.
- Defau, L., & De Moor, L. (2020). The investment costs of occupational pension funds in the European Union: a cross-country analysis. *The European Journal of Finance*, 26(1), 84-94. <https://doi.org/10.1080/1351847X.2019.1656094>
- Diniz, J. A., & Corrar, L. J. (2017). Evaluation of the Financial Efficiency of Closed Private Pension Entities in Brazil. *Sociedade, Contabilidade e Gestão*, 12(3), 44-69. http://dx.doi.org/10.21446/scg_ufrj.v12i3.14165
- Falcão, G. Q., & Alves, C. A. M. (2017). Corporate Governance and Private Pension Plans in Brazil: Analysis based on PREVIC recommendations. *Revista de Governança Corporativa*, 4(2), 90-117.
- Fallatah, Y., & Dickins, D. (2012). Corporate governance and firm performance and value in Saudi Arabia. *African Journal of Business Management*, 6(36), 10025-10034. <https://doi.org/10.5897/AJBM12.008>
- Fávero, L. P., & Belfiore, P. (2017). *Data analysis manual: Statistics and multivariate modeling with Excel®, SPSS® and Stata®*. Rio de Janeiro: Elsevier.
- Freitas, G. A., Silva, E. M., Oliveira, M. C., Cabral, A. C. A., & Santos, S. M. (2018). Corporate Governance and Bank Performance Listed at B3 in an Economic Crisis Environment. *Revista Contabilidade, Gestão e Governança*, 21(1), 100-119. http://dx.doi.org/10.21714/1984-3925_2018v21n1a6
- Guo, Z., & Kga, U. K. (2012). Corporate governance and firm performance of listed firms in Sri Lanka. *Procedia-Social and Behavioral Sciences*, 40(10), 664-667. <http://dx.doi.org/10.1016/j.sbspro.2012.03.246>
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305-360. [https://doi.org/10.1016/0304-405X\(76\)90026-X](https://doi.org/10.1016/0304-405X(76)90026-X)
- Kowalewski, O. (2012). Corporate governance and pension fund performance. *Contemporary Economics*, 6(1), 14-44. <https://ssrn.com/abstract=2178363>
- Lima, L. C., Oliveira, M. C., Ponte, V. M. R., & Rebouças, S. M. D. P. (2015). Corporate governance practices adopted and disclosed by Brazilian pension funds. *Revista Contemporânea de Contabilidade*, 12(27), 03-26. <https://doi.org/10.5007/2175-8069.2015v12n27p3>
- Lopes, J. E.G., Kataoka, S. S., Ribeiro Filho, J. F., & Pederneiras, M. M. M. (2010). A study on the dissemination of information on Corporate Governance practices on the websites of closed private pension entities. *Revista Contemporânea de Contabilidade*, 7(13), 151-174. <https://doi.org/10.5007/2175-8069.2010v7n13p151>
- Macedo, M. A. S., & Corrar, L. J. (2012). Comparative analysis of the accounting and financial performance of companies with good corporate governance practices in Brazil. *Revista Contabilidade e Controladoria*, 4(1), 42-61.

- <http://dx.doi.org/10.5380/rcc.v4i1.25258>
- Machado, M. A. V., Macedo, M. A. S., & Machado, M. R. (2015). Analysis of the relevance of the informational content of the DVA in the Brazilian capital market. *Revista Contabilidade & Finanças*, 26(67), 57-69. <http://dx.doi.org/10.1590/1808-057x201512240>
- Martí-Ballester, C. P. (2020). Does concurrent management of mutual funds and pension plans create conflicts of interest?. *Ensayos de Economía*, 30(56), 53-77. <https://doi.org/10.15446/ede.v30n56.78134>
- Ministry of Finance. (2017). Monthly newsletter from the undersecretary of the supplementary pension scheme: Statistics from the Supplementary Pension Scheme - RPC. <http://www.previdencia.gov.br/dados-abertos/dados-abertos-previdencia-complementar/versoes-anteriores/>
- Nascimento, A. C. R., Frauches, P. F., Chan, B. L., & Silva, F. L. (2014). Adherence of closed publicly funded private pension entities to corporate governance practices. *Revista Eletrônica do Departamento de Ciências Contábeis & Departamento de Atuária e Métodos Quantitativos (REDECA)*, 1(1), 79-101. <https://doi.org/10.23925/2446-9513.2014v1i1p79-101>
- Nascimento, J. C. H. B., Angotti, M., Macedo, M. A. S., & Bortolon, P. M. (2018). The relationships between corporate governance, risk and indebtedness and their influence on the financial performance and the market value of Brazilian companies. *Advances in Scientific and Applied Accounting*, 11(1), 166-185. <https://doi.org/10.14392/asaa.2018111166-185>
- National Superintendence of Supplementary Pension Plans (PREVIC). (2018). Closed Supplementary Pension Entities. <http://www.previc.gov.br/a-previdencia-complementar-fechada/entidades-fechadas-de-previdencia-complementar-1>
- Pereira, C. A. P., & Niyama, J. K. (2016). Accounting of pension funds: an assessment of the perception of accountants, consultants and auditors about the applicable Brazilian accounting standards. *Revista de Gestão, Finanças e Contabilidade*, 1(6), 132-151. <http://dx.doi.org/10.18028/2238-5320/rgfc.v6n1p132-151>
- Pereira, L. H. M., & Martins, O. S. (2015). Credit rating, corporate governance and performance of companies listed on the BM&FBovespa. *REGE-Revista de Gestão*, 22(2), 205-221. <https://doi.org/10.5700/rege559>
- Pillai, R., & Al-Malkawi, H. A. N. (2018). On the relationship between corporate governance and firm performance: Evidence from GCC countries. *Research in International Business and Finance*, 44, 394-410. <https://doi.org/10.1016/j.ribaf.2017.07.110>
- Rose, C. (2016). Firm performance and comply or explain disclosure in corporate governance. *European Management Journal*, 34(3), 202-222. <https://doi.org/10.1016/j.emj.2016.03.003>
- Sami, H., Wang, J., & Zhou, H. (2011). Corporate governance and operating performance of Chinese listed firms. *Journal of International Accounting, Auditing and Taxation*, 20(2), 106-114. <https://doi.org/10.1016/j.intaccaudtax.2011.06.005>
- Santiago, J. S., Cavalcante, P. R. N., & Paulo, E. (2015). Analysis of persistence and conservatism in the process of international convergence in publicly traded companies in the construction sector in Brazil. *Revista Universo Contábil*, 11(2), 174-195. <https://doi.org/10.4270/RUC.2015217>
- Sheikh, N. A., Wang, Z., & Khan, S. (2013). The impact of internal attributes of corporate governance on firm performance: Evidence from Pakistan. *International Journal of Commerce and Management*, 23(1), 38-55. <https://doi.org/10.1108/10569211311301420>
- Silva, R. V. D. (2009). Compliance with governance rules, principles and practices in closed

- private pension entities. Dissertation, Federal University of Santa Catarina, Florianópolis, SC.
- Souto, P., & Musalem, A. R. (2012). Assessing the governance and transparency of national public pension funds. *Review of European Studies*, 4(2), 148-167. <https://doi.org/10.5539/res.v4n2p148>
- Starks, L. T., & Wei, K. D. (2013). Cross-border mergers and differences in corporate governance. *International Review of Finance*, 13(3), 265-297. <https://doi.org/10.1111/irfi.12008>
- Tan, M. G. S., & Cam, M. A. (2013). Explaining Pension Fund Product and governance disclosure in Australia. *Australasian Accounting Business & Finance Journal*, 7(3), 49-67. <http://dx.doi.org/10.2139/ssrn.1895110>
- Tariq, Y. B., & Abbas, Z. (2013). Compliance and multidimensional firm performance: Evaluating the efficacy of rule-based code of corporate governance. *Economic Modelling*, 35(1) 565-575. <https://doi.org/10.1016/j.econmod.2013.08.015>
- Teixeira, B. M. (2015). Explanatory factors for adherence to the governance practices of closed Brazilian private pension entities. Dissertation, University of Vale do Rio dos Sinos (UNISINOS), São Leopoldo, RS.
- Ulum, Z. K. A. B., Wafa, S. A. W. S. K., Karim, M. R. A., & Jamal, A. A. A. (2014). Corporate governance practices of insurance companies: Attributes and accountability. *IUP Journal of Corporate Governance*, 13(1), 47.
- Vilhena, F. A. C., & Camargos, M. A. (2015). Corporate governance, value creation and economic-financial performance: evidence from the Brazilian market with panel data, 2005-2011. *REGE. Revista de Gestão*, 22(1), 77-96. <https://doi.org/10.5700/rege552>

Governança Corporativa e Rentabilidade dos Planos de Entidades Fechadas de Previdência Complementar

RESUMO

Objetivo: Este estudo analisa a relação entre boas práticas de governança corporativa (acesso à informação, conteúdo das informações publicadas e estrutura de gestão) e o desempenho (mensurado pela rentabilidade dos planos) de Entidades Fechadas de Previdência Complementar (EFPC).

Método: Para uma amostra de 76 EFPC classificadas entre as 89 entidades de financiamento público os dados foram coletados nos Relatórios Anuais de Informação, estatutos e informações dos websites das entidades e no demonstrativo estatístico publicado pela Associação Brasileira das Entidades Fechadas de Previdência Complementar do exercício de 2017. Para testar a hipótese da pesquisa aplicou-se o método de Regressão Linear Múltipla realizada com apoio do software STATA®.

Originalidade / Relevância: Destaca-se a relevância das EFPC, setor que vem crescendo no Brasil, principalmente com a reforma da previdência nos setores público e privado.

Resultados: Os resultados evidenciaram que a rentabilidade possui relação positiva e significativa com a variável que indica adoção de boas práticas de governança corporativa. Como os valores de significância e explicação do modelo mostraram-se frágeis diante dos padrões da área, instiga-se investigar se isso pode decorrer do nível de divulgação das práticas de governança analisadas ou do checklist de práticas de governança utilizado.

Contribuições teóricas/metodológicas: A pesquisa destaca a importância das boas práticas de governança corporativa em EFPC para alcançar melhores resultados e cumprir as obrigações para com os membros da organização e demais interessados.

Palavras-chave: Governança corporativa; Rentabilidade; Entidades Fechadas de Previdência Complementar.


Renata Mendes de Oliveira 

Universidade Federal de Santa Catarina, Santa
Catarina, Brasil
E-mail: remendes.itba@gmail.com

Ilse Maria Beuren 

Universidade Federal de Santa Catarina, Santa
Catarina, Brasil
E-mail: ilse.beuren@gmail.com

Ernesto Fernando Rodrigues

Vicente 

Universidade Federal de Santa Catarina, Santa
Catarina, Brasil
E-mail: ernesto.vicente@ufsc.br

Recebido: Março 13, 2020

Revisado: Setembro 3, 2020

Aceito: Dezembro 2, 2020

Publicado: Abril 27, 2021

