

ARTICLE

Member Rights and the Effect of Bylaws on Credit Union Banking Spreads

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ABSTRACT

Voting and redeeming shares are two of the legal rights that allow members to exercise control over credit unions. As such, this work will investigate whether member rights are effective disciplinary mechanisms for Brazilian credit union managers. Bylaw clauses which discourage the use of these member rights were tested to see their effects on banking spreads due to management choices. Restrictions in terms of candidacies which limit competition in elections are associated with greater spreads, suggesting that there is managerial entrenchment due to the protection they receive. Even improvements in corporate governance may not compensate for this election protection. Meanwhile, redeeming shares has proved to be inefficient as a mechanism of managerial discipline. The results suggest the importance of competition in elections and that regulatory bodies can use their influence to guarantee member rights.

KEYWORDS

Credit Unions, Control Rights, Corporate Governance, Private Benefits of Control, Regulation.

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Received: 05/24/2023.
Revised: 08/30/2023.
Accepted: 11/09/2023.
DOI: <https://doi.org/10.15728/bbr.2023.1603.en>



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MEMBER RIGHTS AND THE EFFECT OF BYLAWS ON THE BANKING *SPREAD* OF CREDIT UNIONS

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RESUMO

Votar e resgatar quotas são os dois direitos garantidos pela lei que permitem aos membros exercer controle sobre as cooperativas de crédito. Sendo assim, este trabalho investigou se os direitos de membro são mecanismos eficazes de disciplina sobre os gestores das cooperativas de crédito brasileiras. Cláusulas estatutárias que desincentivam o uso desses direitos pelos membros tiveram seu efeito testado sobre o *spread* bancário deliberado, decorrente das escolhas gerenciais. As restrições a candidaturas, que limitam a competição nas eleições, são associadas a maiores *spreads* deliberados, sugerindo entrenchamento gerencial devido à proteção dada à gestão. Mesmo o aprimoramento da governança corporativa pode não compensar a proteção contra as eleições. Já o resgate de quotas é ineficaz como mecanismo de disciplina sobre a gestão. Os resultados sugerem a importância da competição nas eleições, e que órgãos reguladores podem usar sua influência para assegurar aos membros os seus direitos.

PALAVRAS-CHAVE

Cooperativas de Crédito, Direitos de Controle, Governança Corporativa, Benefícios Privados ao Controle, Regulação.

1. INTRODUCTION

Regulatory changes have driven the rise of Brazilian credit unions. With the coming of more flexible rules for associations, more individuals can become credit union members, expanding and dispersing the ownership structures of these organizations in diverse locations (Banco Central do Brasil, 2022; Canassa et al., 2022). However, the distancing of members weakens traditional aspects associated with cooperativism, such as participation and peer monitoring, which are considered essential for controlling organizational decisions. As a result, the power of managers, whether they are board members with executive functions, elected directors or hired executives, has become greater and greater (Leggett & Strand, 2002; Banerjee et al., 1994). As owners, the only disciplinary mechanisms that remain for members is the possibility of using their residual rights by voting in assemblies or redeeming their shares.

As such, this work investigates whether so-called member rights, which are the right to vote and redeem shares, are efficient in disciplining credit union managers. Specifically, we will test whether bylaw clauses designed to discourage members from using these rights end up excessively protecting managers, enabling them to extract private benefits at the cost of banking spreads that are worse than expected (Dyck & Zingales, 2004). We will also investigate the origin of these clauses, which are associated with credit union systems that seek to protect their affiliated credit unions by determining the rules that must be followed.

The effect of bylaw clauses has been extensively studied within the context of companies listed on stock exchanges, where investors have rights proportional to their investments and can negotiate shares on the market. In these companies, restrictions to voting rights and negotiations protect poorly performing executives, thereby devaluing shares (Armour, 2020; Donaldson et al., 2020; Anginer et al., 2018). However, if it is recognized that investor rights are crucial in disciplining executives in listed companies (Cremers & Ferrell, 2014; Bebchuk et al., 2009), it is not known whether member rights are equally relevant in credit unions in which their shares are redeemable, they are given just one vote, and their benefits come from their access to services.

It is even questioned whether members would use their rights, given the small investment required for membership (Rasmusen, 1988). This work addresses this subject and is the first to apply it to credit unions.

To accomplish this, we have examined the bylaws of 808 Brazilian credit unions to identify restrictions for new candidacies in their elections which limit competition as well as the inexistence of formal deadlines for complying with requests for share redemptions. We have tested the effect of these clauses on the banking spreads offered by credit unions, which may be attributed to their managers' discretion and ability. The results highlight that, even though these rules are well-intentioned, these candidacy restrictions permit an increase in banking spreads, indicating that they have an entrenching effect, protecting managers and allowing them to define banking service rates that are less attractive than they could be. Improving corporate governance and making the board of directors more independent does not annul managerial entrenchment. This study also presents evidence that the redemption of shares does not discipline management, possibly because of the small investment required for membership.

Thus, this work contributes to the literature by exploring and testing the viability of member rights as a disciplinary mechanism in credit unions. This differs, for example, from studies that highlight the importance of democratic elections for the strategic reorientation of credit unions, like Banerjee et al. (2001), but do not investigate their disciplinary effect on management. This work is also important, because it suggests the influence of regulatory bodies on bylaw clauses, which is an influence that could be used to reinforce the protection of member rights. This has recently gained relevance due to Complementary Law No. 196 (2022) which allows credit unions to remove geographic requirements for membership. It is to be expected that just polishing corporate governance when members are even more dispersed will not be enough to counter the power that these managers wield.

2. THEORETICAL FRAMEWORK

Individuals seek credit unions for access to less expensive loans and higher rates of returns on their deposits than those encountered in commercial banks. To access these benefits, an individual must invest a minimum number of shares stipulated by the credit union, and thus that person becomes one of its owners, or a member as they are known (Rubin et al., 2013). The type of ownership is the origin of the differences between the control of credit unions and companies listed in the stock market, which are mostly commercial banks. While the actions of listed companies are negotiable and confer on each investor proportional control of the realized investment, credit union shares are not commercialized and reward each member with just one vote (Hansmann, 1996).

The investment to become an owner concedes residual control rights over the organization to credit union members, as well as investors, in listed companies. This is a group of control rights which cannot be delegated contractually to anyone and remains exclusively for the use of the owners (Hart & Moore, 1990; Grossman & Hart, 1986). With these rights, the owners can exercise formal control over the organization. If these owners are investors in a listed company, they can seek internal decisions that increase future dividends, increasing the value of their shares. If they are members of credit unions, they can seek internal decisions that will produce attractive banking service rates for most of the members (Hart & Moore, 1998, 1996).

These are termed residual rights because most of the control decisions in organizations are delegated to the board of directors and managers, who have the discretion to act in the name of the owners. Being agents, however, they can make decisions that are only in their own interest,

utilizing organizational resources to extract private benefits, such as advantages, prerogatives, and financial gains. The extraction of private benefits is inherent in agency conflict and is often difficult to observe directly, even though it affects the owners' financial returns. It intensifies to the extent that agents accumulate power and are less monitored (Dyck & Zingales, 2004).

In credit unions, managers' search for private benefits is stimulated by the growing dispersion of their structures due to the continual entrance of new members. This is because dispersion increases the distance between members, reducing their direct participation in decision making and weakening peer monitoring. The board of directors also tend to be dominated by the managers whom the board monitors in the name of the members. Often board members are managers or have strong ties with management. As a result, managers are empowered and perform their daily activities with little surveillance (Gorton & Schmid, 1999).

Credit unions do not differ much from companies listed in markets like that of the United States, where ownership structures are diluted and the board of directors is dominated by executives, thereby empowering management (Hermalin & Weisbach, 1998). In these companies the main form of discipline for executives comes from the risk of intervention by their investors if they perceive that their shares are losing value. To accomplish this, investors use residual control rights through voting. If they consider that the return of an intervention will not be worth its cost, they can negotiate their shares with those interested in buying them (Armour, 2020). When there are obstacles to investors using their rights to vote and negotiate their shares, executives become entrenched, increasing the extraction of private benefits, and decreasing the value of the company's shares (Anginer et al., 2018; Bebchuk et al., 2009; Chang & Zhang, 2015; Cremers & Ferrell, 2014; Donaldson et al., 2020; Gompers et al., 2003; Straska & Waller, 2014). Due to the importance of controlling manager behavior, regulation should play the role of protecting investor rights (Karpoff & Wittry, 2018; La Porta et al., 2000).

In credit unions, this involves members promoting organizational changes through the use of their residual control rights when the available banking rates are not attractive. The means which are ensured by law for members to use their residual control rights are voting in assemblies and redeeming their shares. We define these means as member rights (Fama & Jensen, 1983; Hart & Moore, 1998; Law No. 5764, 1971).

Voting allows members to change board members and managers in periodic elections (Banerjee et al., 2001; Hart & Moore, 1998, 1996). Other important decisions which are decided by voting are the approval of takeovers, when managers usually lose their positions, the allocation of operational profits, and bylaw clauses related to control (Armour, 2020; Renneboog & Vansteenkiste, 2019). Through voting, members choose how to use credit union funds and select who should use these funds to offer banking services. By redeeming their shares, members can individually "fire" the credit union if they believe that the banking service rates are not attractive. The investment in shares provides returns to the members, who can reallocate them for other purposes (Fama & Jensen, 1983). Redeeming shares gives them control over the resources that produce banking services.

Thus, it is possible to suggest that the eventual use of voting rights and the redeeming of shares by members represent a risk for credit union managers. Board members and managers who do not provide attractive banking service rates for most of their members may lose their reputation and be replaced in elections or even during takeover processes (Banerjee et al., 2001; Hart & Moore, 1998). Members can also vote to request a larger portion of the credit union's profits, diminishing the free cash flow available to management (Jensen, 1986). Redeeming shares is similar to a partial sale of assets. This may eventually cause financial difficulties and even lead to

the closing of the credit union's activities or its takeover. Even when managers do not lose their positions, they face restrictions in their extraction of private benefits (Fama & Jensen, 1983).

However, even though voting and redeeming shares can represent risks to credit union managers, their effectiveness as disciplinary mechanisms has not been submitted to an empirical evaluation. In this sense, it should be emphasized that the literature itself tells us that the investment to become a member, which is typically inexpensive, may discourage the members' use of these mechanisms. Rasmusen (1988) and Gorton and Schmid (1999) point out that the small investment required does not encourage members to participate in votes even when they are dissatisfied, because the cost of collective decision making, which grows with the dispersion of the ownership structure, is high. In turn, Fama and Jensen (1983) indicate that the small investment in shares does not motivate members to request redemptions, because they would receive little in return.

In this manner, this work will investigate the effectiveness of member rights as disciplinary mechanisms for credit union managers.

3. METHODOLOGY

In this work, we will identify bylaw clauses that discourage members from using their rights. They are well-intentioned rules, but they excessively protect the managers. Based on the theoretical framework, our hypothesis is that there is a positive association between these clauses and the banking spreads offered by managers, which suggests that, when protected from member rights, managers offer banking service rates that are less attractive than they could be. The sample consists of 1,838 observations from 808 credit unions, covering all the financial years since the approval of the analyzed bylaw until 2016. The sample consists of one to eight observations per credit union.

3.1. DATA COLLECTION AND THE CONSTRUCTION OF THE DATABASE

Clauses dealing with member rights were identified through the application of a checklist to bylaws valid for individual Brazilian credit unions in operation in 2016 provided by the Central Bank of Brazil.¹ The checklist was filled in by two research assistants in an independent manner to avoid evaluation errors; in the case of an impasse, one of the authors made the final decision. The other data used was the credit unions' balance sheets and registrations, which were accessed from the websites of the Brazilian Central Bank or Treasury or collected directly from the bylaws themselves.

Those categorized as capital and loan and similar terms were removed from the financial and registration data for all the individual credit unions from 2009 to 2016, which was deflated for December 2022, to avoid distortions in the calculation of banking spreads because they do not receive deposits (Pinheiro, 2008). For the 7,435 remaining observations from 1,078 credit unions, we estimated the average spread in Model 3 and the spread offered in Model 4, as well as the control variables in Models 1 and 2, as presented in the following subsections. Cross-referencing these observations with the bylaw data, we attained 1,838 observations from 808 credit unions, which were used for our results.

¹ The investigated bylaw clauses are still common, as verified by examining the current bylaws of a credit union sample.

A positive association between clauses regarding member rights and the banking spreads offered by credit union managers was tested by Equation 1

$$sp_an_{it} = \alpha + \beta_1 e_{i1} + \beta_2 e_{i2} + \gamma' D_{it}^* + \theta_t + \varepsilon_{it} \quad (1)$$

where the spread offered (sp_an) by the managers of credit union i in year t is a function of clauses e concerning member rights, and D^* controls for the financial performance of i during t , which reflects the ability of management, and *dummy* year variables (θ) to control for any temporal specificities. Factors like size and the influence of systems are controlled in the construction of sp_an , which make a new control redundant in Equation 1.

In addition, interactions between clause e and variable S , which identifies the degree of separation between the board members and managers, were included in Equation 1. Thus, if the regulatory changes have intensified the dispersion of the ownership structure, empowering managers, they have also reinforced corporate governance in credit unions (Complementary Law No. 196, 2022). It would be expected that, with the independence and specialization of the position, board members would become more effective in controlling management (Fama & Jensen, 1983), but they could also become lenient with managers, mainly when their positions are protected (Hermalin & Weisbach, 1998). The model with these interactions appears in Equation 2.

$$sp_an_{it} = \alpha + \tau_1 e_{i1} + \tau_2 e_{i2} + \phi_1 (S_i \times e_{i1}) + \phi_2 (S_i \times e_{i2}) + \rho S_i + \gamma' D_{it}^* + \theta_t + \varepsilon_{it} \quad (2)$$

In Equation 2, the moderation of S is given by the coefficients ϕ , which have an effect on the coefficients τ in clause e . Meanwhile, coefficient ρ represents the cost of governance. Finally, the net total effect of the separation of the board members and managers is the sum of coefficients ρ , τ , and ϕ , if their respective variables are significant (Hayes, 2018).

3.2.1. Banking Spreads Offered by Management

Members seek attractive banking service rates. It is understood that the objective of credit unions is to minimize banking spreads, which are conditioned on generating income that will be sufficient to over their operating expenses (Rubin et al., 2013). In Equation 3 we present the calculation for the average banking spread (sp) of credit union i in year t

$$sp_{it} = \frac{r_oc_{it}}{oc_{it}} - \frac{d_dep_{it}}{dep_{it}} \quad (3)$$

Given that the difference between the ratio of income obtained through credit operations (r_oc) based on total credit operations (oc) in a given year t , the ratio between expenses and deposits raised (d_dep), and total deposits (dep) in that same year t .

It is expected that managers seek to minimize the banking spread. However, they are agents who have the discretion to extract private benefits through the credit union's funds, harming its members (Gorton & Schmid, 1999; Jensen, 1986). These private benefits lead to less attractive rates and a greater banking spread than is necessary. Member rights discipline managerial opportunism.

If the members are discouraged from using their rights, managers become entrenched in their positions, which enables them to increase their private benefits.

Managers cannot simply price products based solely on their interest in private benefits (Jensen, 1986). Pricing takes into account the product and company attributes and managerial deliberations, which are reflected in the difference between the observed price and the expected price (Brickley et al., 2015). Thus, the effect of deliberations such as the extraction of private benefits make up the error terms of regressions where the observed spread is a function of these determinants, as presented in Equation 4

$$sp_an_{it} = u_{it} = sp_{it} - b'H \quad (4)$$

where the banking spread (sp_an) offered by the managers of credit union i in year t is the error term u of the observed spread regression, calculated in Equation 3, as a function of H , the determinants. Given the difference between the practiced and expected spread, we have a positive u error terms which reflect deliberations leading to larger than necessary spreads. The larger sp_an is, the less advantageous the banking service rates offered to the members are.

The banking spread of a credit union should cover operating costs which increase with size and complexity (Brickley et al., 2015). Therefore, H contains the natural logarithms of the total assets of credit union i in year t and the quantity of branches of i in year t , representing respectively the size and complexity of its operations. Managers cannot price products arbitrarily, because customers would seek alternatives in the market (Jensen, 1986). There are two price parameters in H . The first is the median spread for credit unions specialized in the same type of banking service as i in year t and located near i (sharing the same “CEP”). The services considered were rural credit and services in general. Observe that the construction of the variable also controls for regional effects (“CEP”) on the spread. The median of the spread of affiliates in the same credit union system as i in year t (NA indicates not available) also controls for the effect of regulation on the system. Finally, H contains year dummy variables to control for unobserved temporal effects.

Equation 3 was calculated, and Equation 4 was estimated based on Pooled Ordinary Least Squares (POLS), utilizing observations from 2009 to 2016. This sought to generalize the construction of sp_an to test the effect of the clauses, removing biases caused by considering years that the analyzed bylaws were in effect, because in unbalanced panels, credit unions with more observations receive greater weights (Cameron & Trivedi, 2005). It also should be noted that outliers exist in the distribution of sp , calculated in Equation 3. The variable was winsorized at 1%, because these were measurement errors. Of the adjusted observations, only 20 (from 6 credit unions) were included in the results.²

3.2.2. Member Rights Clauses

For listed companies, the literature has identified that some clauses limit investor rights and protect executives (Armour, 2020; Bebchuk et al., 2009). This logic has been adapted to member rights in credit unions. In this work, e clauses are dichotomic variables as identified in Equation 5.

$$e_{ik} = \begin{cases} 1, & \text{if the bylaws of credit union } i \text{ have a clause } k \\ 0, & \text{if it does not} \end{cases} \quad (5)$$

² Removing these outliers produces results similar to this work's results.

when the bylaws of credit union i have a clause that discourages voting in elections ($k = 1$) or the redemption of shares ($k = 2$), the respective e_{ik} is 1, and 0 when there is no such clause. Clauses about takeovers and amendments were not considered in this work, because all credit union bylaws have the same rules imposed by Law No. 5764 (1971), therefore there is no variation to be investigated.

For $k = 1$, we considered restrictions to board member candidacies. For example, the law does not allow individuals convicted of financial crimes, or those with relationships with other financial institutions, to be candidates (Resolution No. 4434, 2015; Law No. 5764, 1971). However, some credit unions have additional requirements—specific technical knowledge or a minimum time period as a member—to select trained and known candidates (Banco Central do Brasil, 2008). Though well-intentioned, these demands reduce competition in elections. Board members with executive functions feel less election pressure and therefore can extract private benefits. Board members without executive functions, who select and monitor the managers, have less incentive to properly perform their functions. They become lenient with management and can even influence who should be a candidate for the board. They also can seek private benefits together with the managers (Hermalin & Weisbach, 1998). With few alternatives, members may be discouraged from voting in elections, thus protecting the managers.

Meanwhile $k = 2$ considers the absence of a formal deadline to execute member requests for redemptions of shares. Law No. 5764 (1971) established that the value of the shares should be returned to the member after such a request, but the deadline is determined by each credit union. Seeking to ensure financial stability, credit unions frequently state that the deadline should be determined by the board of directors or managers. In fact, financial stability is a recurring concern for credit unions (Hart & Moore, 1996). However, with no formal deadline, managers can control a mechanism that should pressure them. In addition, the members will be discouraged from requesting redemptions individually, because there is no provision concerning their reimbursement. In both situations, management is protected.

In addition to investigating the banking spread offered, we investigated the frequency of e clauses in each credit union system, together with statistics concerning the affiliates of each system. This is because credit unions are financial institutions which follow the rules imposed or suggested by regulatory bodies, which, in Brazil, are the Central Bank and the system with which it is affiliated (Pinheiro, 2008; Gorton & Schmid, 1999). If the Central Bank regulates all credit unions, each of the systems, which are credit unions of similar origins and characteristics, is independent in establishing its rules among its affiliates. Therefore, investigating the systems makes it possible to analyze their clause characteristics. To reinforce this analysis, we performed χ^2 (or F) tests, with the null hypothesis being the independence of the system averages (or frequencies).

3.2.3. Separation between the Board of Directors and Managers

For variable S , it is 1 when the bylaw of credit union i foresees both a board of directors and managers, and just one of the directors has executive function (is also a manager); and 0 when it does not. The second condition results from the fact that all credit unions with a board of directors and managers foresee a duality in positions for at least one of their directors. Therefore, this is the maximum separation observed between these groups (Fama & Jensen, 1983).

In addition to the interest in private benefits, deliberations depend on the managerial ability of managers. Thus, D^* is composed of the PEARLS financial indicators which determine credit union insolvency as identified by Bressan et al. (2011). It is assumed that the risk of insolvency is determined by the capability of management. P2 is the ratio of past due credit operations divided by all credit operations, which represents operational risk. E1, E3, and E4 represent the credit union's financial structure, in the form of the proportions of net credit operations, capital social, and reserves respectively in relation to total assets. A3 is the quality of the assets, calculated as the ratio of non-banking service production assets divided by total assets. R5, R6, and R11 are the ratios of gross margins over total assets, operational expenses over total assets, and service income over administrative expenses, to control rates of return and expenditures. The asterisk in D^* signifies that the indicators have gone through the same treatment as the spread and are also error terms of the regressions of the function of the same H used in Equation 4, and therefore they are also determined by characteristics like size and system regulation.

3.3. ECONOMETRIC SPECIFICATIONS

The regressions in Equations 1 and 2 were estimated by POLS for all annual observations of the analyzed bylaws; and by Ordinary Least Squares (OLS) for the observations in 2016. The use of POLS is justified because the deliberation of the managers depends on the protection of e clauses in our hypothesis, which is an intrinsic characteristic of each credit union in the years when it operates under the same bylaws. Panel regressions with fixed or random effects, due to their nature, mitigate the intrinsic characteristics of each credit union in the results, capturing the effect of these clauses on the banking spread.³ OLS, meanwhile, verify the robustness of the results of the POLS, due to the possible autocorrelation of the residuals of the same credit union (Cameron & Trivedi, 2005).

For the validity of the estimates, we conducted a correlation analysis between the D^* controls and the e clauses. All the identified correlation coefficients were weak (<0.15 ; and most <0.05), indicating that the collinearity is negligible. We also conducted the Shapiro-Wilk test in for errors obtained in the preliminary estimates of Equations 1 and 2, as well as the graphic analyses associating the preliminary error terms with the observed and predicted values of sp_{an} in the preliminary estimate. Since the analyses suggest heteroskedasticity, we used robust standard errors to generate the results (Cameron & Trivedi, 2005).

4. RESULTS

Table 1 contains a description of the sample credit unions utilizing data from 2016. It consists of clause frequencies and the statistics of the variables that compose H (averages and standard deviations; frequencies for the rural credit specialization). The credit unions are also grouped according to their affiliations with one of the three largest credit union systems (Sicoob, Cresol, and Sicredi), as well as one group for affiliates of other systems and another for independent credit unions. We also present the median minimum investment in shares stipulated in bylaws (when it is not variable), because this is a direct incentive for members to use their rights. They are median values due to the concentration of values in the inferior portion of the distribution.

³The bylaw clauses would be in fact omitted in fixed effect panel regressions, because in this work they exhibited no annual variation in individual credit union data.

Table 1*Description of the Sample and the Groups Based on Affiliation with a Credit Union System*

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	Overall	Sicoob	Cresol	Sicredi	Others	Indep.	χ^2 or F
Limits on Candidacies ($k = 1$)	57.30% (463)	71.46% (283)	15.48% (24)	79.83% (95)	58.97% (46)	25.00% (15)	193.62*** (4)
Limits on Redeeming Shares ($k = 2$)	29.83% (241)	20.71% (82)	38.71% (60)	18.49% (22)	58.97% (46)	51.67% (31)	74.22*** (4)
Assets (millions of R\$)	309.98 (622.37)	280.63 (594.78)	58.09 (52.37)	776.95 (751.47)	399.86 (836.58)	111.35 (465.30)	85.98*** (4, 803)
Branches	5.91 (8.32)	5.34 (6.82)	2.52 (2.05)	13.54 (12.10)	6.64 (10.04)	2.32 (6.01)	55.26*** (4, 803)
Specialization (Rural Credit = 1)	18.07% (146)	3.28% (13)	75.48% (117)	0.00% -	3.85% (3)	21.67% (13)	441.05*** (4)
Membership Cost (R\$) ^a	30.00	95.00	20.00	20.00	100.00	100.00	
Observations	808	396	155	119	78	60	

Note. Indep. indicates independent credit unions. Below the frequencies appear the quantities, below the averages are the standard deviations, and below χ^2 or F are the degrees of freedom.

Source: The authors.

^a Medians for 779 credit unions whose membership costs were not variable under their 2016 bylaws.

*** p-value < 0.01

From Table 1, we may observe that candidacy restrictions ($k = 1$; 57.30%) are more frequent than the absence of a deadline to redeem share requests ($k = 2$; 29.83%). These restrictions are quite common among Sicoob and Sicredi affiliates (71.46% and 79.83%), and less frequent in Cresol affiliates (15.48%). The opposite occurs for clauses regarding share redemptions, which are common in Cresol (38.71%), and mainly independents (51.67%), but not in Sicoob and Sicredi (20.71% and 18.49%). It should be noted that the independence tests rejected the null hypothesis for both types of clauses ($\chi^2(4) = 193.62$ for $k = 1$ and $\chi^2(4) = 74.22$ for $k = 2$, p-values < 0.01), which suggests that dependencies are common in credit union systems. These dependencies could be an effect of the influence of regulation by credit union systems, with the stipulation of bylaw rules related to member rights (Karpoff & Wittry, 2018; La Porta et al., 2000).

The tests also indicated dependency in the H variables in relation to credit union systems, making it possible to characterize them based on their affiliated credit unions. For example, Sicoob and Sicredi, which have more frequent candidacy clauses, are the systems with the largest credit unions (R\$ 280.63 million and R\$ 776.95 million in total assets, on average). Excluding the affiliates of other systems, since each of them is composed of just a few credit unions, Sicoob and Sicredi also include more complex credit unions (5.34 and 13.54 branches on average) which are specialized in more than one type of service (3.28% of Sicoob credit unions are specialized in rural credit, while none of Sicredi are). Size and complexity require greater management training and specialization, which supports the justifications for their candidacy requirements. Even board members without executive functions need training to monitor the managers of large and complex credit unions (Fama & Jensen, 1983).

Cresol is characterized by small credit unions of less complexity compared to the others (on average, R\$ 58.09 million in total assets and 2.52 branches, with 75.48% specialized in rural credit). Due to their small size and specialization, there are fewer technical requirements for candidacies reflected in the low frequency of $k = 1$ (15.48%). Being small and dependent on one service, however, makes them more affected by share redemptions. This logic is reinforced by the independents, which on average are smaller than those in Sicoob and Sicredi and have a frequency of $k = 2$ which is even greater than that of Cresol (51,67%). Independents, in addition to being small, do not have a system to run to if they have financial constraints. This justifies their limiting share redemptions to ensure financial stability (Gorton & Schmid, 1999; Fama & Jensen, 1983). It should be noted that the membership cost for independents is greater than Cresol (with respective median values of R\$ 100 and R\$ 20), which suggests that the redemption of shares is important financially.

Based on Table 1, therefore, it is possible to suggest the existence of the influence of systems in defining these clauses that potentially discourage members from exercising their rights, even though they may be well-intentioned and justified by these credit unions' characteristics and needs. This understanding is reinforced by the negative correlation coefficient of -0.301 between e_{i1} and e_{i2} , which suggests that the clauses are substitutes; or the credit unions are large and more complex, which demands technical specifications and the identification of new candidates, or they are small and more susceptible to financial difficulties and seek to retain their members' shares to ensure stability.

Table 2 displays the results of Equation 4's estimates. Below the coefficients in parentheses are the robust standard errors. The candidacy restriction coefficients are positive in both estimates (0.007 for POLS [1]; and 0.010 for OLS [2], p-values < 0.05), indicating that they allow management to offer spreads that are higher than needed. According to studies like Donaldson et al. (2020), Anginer et al. (2018) and Bebchuk et al. (2009), which deal with listed companies, managers are extremely protected from the pressure of elections, because there is little competition. Managerial entrenchment also occurs in credit unions, with managers being protected so that they can extract private benefits, without worrying about their reputation with their members (Cremers & Ferrell, 2014). This result reinforces the importance of ensuring competitive elections so that members can exercise their control and redirect their credit unions when they believe it is necessary (Banerjee et al., 2001). In addition, this diverges from Gorton and Schmid (1999) and Rasmusen (1988), who question the effectiveness of the discipline of elections on management, due to the elevated costs of collective decision making and the members' small investments.

Table 2
Results of the Equation 4 Estimates for POLS and OLS

	POLS (1)	OLS (2)
Limits to Candidacies (e_1)	0.007** (0.003)	0.010** (0.004)
Limits to Redeeming Shares (e_2)	-0.007** (0.003)	-0.001 (0.004)
P2* (risk)	-0.015 (0.015)	-0.003 (0.023)
E1* (financial structure)	-0.140*** (0.022)	-0.153*** (0.037)

Table 2
Cont.

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	POLS (1)	OLS (2)
E3* (financial structure)	-0.039 (0.024)	-0.016 (0.039)
E4* (financial structure)	0.232*** (0.038)	0.108 (0.079)
A3* (quality of the assets)	0.169*** (0.063)	-0.120 (0.151)
R5* (rate of return)	0.392*** (0.091)	0.512*** (0.188)
R6* (rate of return)	0.597*** (0.057)	0.688*** (0.092)
R11* (rate of return)	-0.106*** (0.025)	-0.112*** (0.039)
Dummies to control for the year ^a	Yes	No
Constant	0.005 (0.038)	-0.005 (0.004)
Observations	1,838	808
R ²	0.378	0.387
F Statistic	14.52*** (17, 1820)	23.09*** (10, 797)

Note. POLS (1) utilize observations for all the years between the approval of the bylaw and 2016, and OLS (2) only use observations from 2016. The robust standard errors appear below the coefficients in parentheses, and below the F statistics appear their degrees of freedom. The asterisks together with the indicators indicate that these are error terms of an OLS regression of the determinant function.

Source: The authors.

^a Omitted in OLS (2), because they only use one year.

*** p-value<0.01, ** p-value<0.05

Even if they are well-intentioned, these candidate requirements have the adverse effect of limiting the possibilities for changing board members and managers even when it is necessary. Even though at first glance the effect of the e_1 coefficients seems small, it represents an important portion of the spread offered by management. The analysis of the distribution of sp_{an} indicates that roughly 45% (from percentile 50 to 95) of the credit unions with $k = 1$ offered spreads between zero and 0.110 in 2016. This implies that in credit unions with these clauses, at least 9.09% ($\approx 0.010 \div 0.110$) of the excess spread originates from this protection against elections. Since the market is a natural pricing parameter, managers cannot deviate far from their competitors' rates, because members will seek alternatives to the credit union (Jensen, 1986). Attributing roughly 9% of the excessive spread to protection against elections signifies a reasonable margin for management to offer rates that are less advantageous than they could be.

Meanwhile, the results for the lack of a deadline to redeem member shares are mixed. Even though the negative coefficients suggest that the clause benefits the credit unions, because they are associated with lower offered spreads, the variable by itself only presented significance in POLS (1) (-0.007, p-value<0.05; in POLS [2], -0.001, p-value>0.10). The effect of e_2 on the spread is not clear, which may partly be explained by the cost associated with credit unions. According to Table 1, the median cost was only R\$ 30 in 2016; and the largest median cost was R\$ 100. Members may be indifferent about redeeming their shares because they have little to receive. Thus, there is little utility in redeeming their shares as a disciplinary tool, which is in line with Fama and Jensen (1983) suggestion. Specifically in terms of small and specialized credit unions, it may be more useful to limit redemptions than formalizing a redemption deadline for members to ensure financial stability, because they often face problems in terms of capitalization (Hart & Moore, 1996).

Table 3 contains the results of the Equation 5 estimates with robust standard errors.

Table 3

Results for Equation 5 Estimates for POLS and OLS

	POLS (3)	OLS (4)
Limits to Candidacies (e_1)	0.009*** (0.003)	0.013*** (0.004)
Limits to Redeeming Shares (e_2)	-0.005 (0.003)	0.001 (0.004)
Separation and Limits to Candidacies ($S \times e_1$)	-0.022** (0.010)	-0.029* (0.016)
Separation and Limits to Redeeming Shares ($S \times e_2$)	-0.008 (0.007)	-0.019 (0.012)
Separation of the Board of Directors from the Managers (S)	0.023** (0.010)	0.034** (0.017)
P2* (risk)	-0.013 (0.015)	-0.004 (0.023)
E1* (financial structure)	-0.139*** (0.021)	-0.153*** (0.037)
E3* (financial structure)	-0.042* (0.024)	-0.019 (0.039)
E4* (financial structure)	0.229*** (0.038)	0.106 (0.079)
A3* (quality of the assets)	0.168*** (0.063)	-0.123 (0.150)
R5* (rate of return)	0.393*** (0.091)	0.518*** (0.189)
R6* (rate of return)	0.597*** (0.057)	0.686*** (0.093)

Table 3
Cont.

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	POLS (3)	OLS (4)
R11* (rate of return)	-0.107*** (0.024)	-0.113*** (0.039)
Dummies to control for the year ^a	Yes	No
Constant	0.002 (0.039)	-0.009** (0.004)
Observations	1,838	808
R ²	0.381	0.393
F Statistic	12.98*** (20, 1817)	18.37*** (13, 794)

Note. POLS (3) utilize observations for all of the years between the approval of the bylaw and 2016, and OLS (4) only use observations for 2016. The robust standard errors appear below the coefficients in parentheses, and below the F statistics appear their degrees of freedom. The asterisks together with the indicators indicate that these are error terms of an OLS regression of the determinant function.

Source: The authors.

^a Omitted in OLS (4), because they only use one year.

*** p-value<0.01, ** p-value<0.05, * p-value<0.10

Both estimates for Equation 5 are significant and negative in terms of the moderation of S , pooling the coefficients of e_1 (-0.022 in POLS [3], p-value<0.05; and -0.029 in OLS [4], p-value<0.10). This suggests that the independence and the specialization of the board of the directors in their functions, separate from managers, can attenuate the effect of protecting management against elections. However, when we sum the coefficients of S , e_1 and $S \times e_1$, which were all significant in the two estimates, we find values greater than zero ($0.010 = 0.023 + 0.009 - 0.022$ in POLS [3] and $0.018 = 0.034 + 0.013 - 0.029$ in OLS [4]). In other words, even if the separation of the board and managers effectively diminishes the protection effect for managers through candidate requirements, its net effect is to increase the offered banking spread.

It should be emphasized that dividing the board from managers into distinct bodies generates governance and coordination costs, which also may affect the spread (Fama & Jensen, 1983). These costs may be represented in the coefficients of S (0.023 and 0.034 in POLS [3] and OLS [4], p-values<0.05). It is also important to point out that e_1 refers to candidate requirements for board members. The literature indicates that, with time, protected board members, even when independent, tend to become lenient towards or influenced by the managers whom they should be monitoring. It is also possible that they seek private benefits of control (Hermalin & Weisbach, 1998). In this case, characterized by candidate restrictions in the elections, the interaction effect is more caused by the specialization and experience of management in executive activities and board members in selecting projects, than an improvement in the monitoring of the managers (Fama & Jensen, 1983). Therefore, when $S \times e_1 = 1$, this protection is not only in the coefficient of e_1 ; it is also partly captured by S .

Table 3's results imply that separating the board from managers in distinct bodies may bring benefits in terms of specialization, but it does not guarantee improvements in monitoring manager behavior. Since there is a risk that the board will become ineffective in terms of combatting entrenchment over time, it is important that elections are competitive so that members can promote changes if they believe they are necessary (Banerjee et al., 2001; Hermalin & Weisbach, 1998). Since there is no significance in the interaction between e_2 and S , the results reinforce the ineffectiveness of redeeming shares as a disciplinary tool for managers (Fama & Jensen, 1983) and also reinforce the idea that the possible gains that members receive in terms of financial stability are not guaranteed.

5. CONCLUSION

This work investigates whether member rights in terms of voting and redeeming shares are efficient in disciplining management in Brazilian credit unions. The effect of bylaw clauses that discourage the use of these rights by members has been tested in terms of the banking spreads offered by these credit unions, which reflect managerial choices. We have found that candidacy restricting clauses in elections, even when well-intentioned and justified by the credit union's characteristics, entrench management. Improving corporate governance and separating the board from managers may not compensate for the protection of managers if there is little competition in elections. Meanwhile, exercising control by redeeming shares is ineffective.

These results have implications for both theory and practice. In terms of theory, the evidence highlights that voting by credit union members makes a difference, which is a counterpoint to works that suggest that they are control instruments envisaged by law but have limited effectiveness in terms of disciplining managers. Even if voting is diluted among dispersed ownership structures, it is a relevant tool in corporate governance in which members can promote changes when necessary. Credit union studies thus can consider the characteristics of voting to be as important or more important as the internal mechanisms of corporate governance.

For practice, since credit union systems influence the investigated bylaw clauses, we may suggest that member rights be protected and extended, especially in terms of voting. It is understood that regulators should ensure that the sector grows in a sustainable manner, which means that they need to ensure that members need to have the means to ensure their interests are met. Systems can also promote the training of members who are interested in running for posts in elections, promoting competition without providing room for possible opportunistic candidacies.

Even though this study has some limitations, mainly due to the fact that it is not possible to control for management's level of authority, this work can provide a basis for future studies. In addition to this association between management authority and protection, studies can examine election characteristics in greater detail, such as direct or indirect elections through representatives, which may determine members' interest in wielding control. Studies of events can also investigate other decisions taken based on voting, such as mergers and changes to bylaws which were not explored in this work because the bylaws follow the same rules, as well as factors associated with share liquidity.

REFERENCES

- Anginer, D., Demirguc-Kunt, A., Huizinga, H., & Ma, K. (2018). Corporate governance of banks and financial stability. *Journal of Financial Economics*, 130(2), 327–346. <https://doi.org/10.1016/j.jfineco.2018.06.011>
- Armour, J. (2020). Shareholder rights. *Oxford Review of Economic Policy*, 36(2), 314–340. <https://doi.org/10.1093/oxrep/graa005>
- Banco Central do Brasil. (2008). *Governança corporativa: Diretrizes para boas práticas de governança em cooperativas de crédito*. https://www.bcb.gov.br/content/estabilidadefinanceira/gov_coop/DiretrizesVersaoCompleta.pdf
- Banco Central do Brasil. (2022). *Panorama do Sistema Nacional de Crédito Cooperativo*. <https://www.bcb.gov.br/content/estabilidadefinanceira/coopcredpanorama/Panorama%20do%20Sistema%20Nacional%20de%20Cr%C3%A9dito%20Cooperativo%20V2.pdf>
- Banerjee, A., Besley, T., & Guinnane, T. (1994). Thy neighbor's keeper: The design of a credit cooperative with theory and a test. *The Quarterly Journal of Economics*, 109(2), 491–515. <https://doi.org/10.2307/2118471>
- Banerjee, A., Mookherjee, D., Munshi, K., & Ray, D. (2001). Inequality, control rights, and rent seeking: Sugar cooperatives in Maharashtra. *Journal of Political Economy*, 109(1), 138–190. <https://doi.org/10.1086/318600>
- 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>
- Bressan, V., Braga, M., Bressan, A., & Resende Filho, M. (2011). Uma aplicação do sistema PEARLS às cooperativas de crédito brasileiras. *Revista de Administração*, 46(3), 258–274. <https://doi.org/10.1590/S0080-21072011000300005>
- Brickley, J., Smith, C., & Zimmerman, J. (2015). *Managerial economics and organizational architecture* (6th ed.). McGraw-Hill Education.
- Cameron, A., & Trivedi, P. (2005). *Microeconometrics: Methods and applications*. Cambridge University Press.
- Canassa, B., Costa, D., & Bonacim, C. (2022). Transformations in the ownership structure of credit unions: Banking service rates and the expectations of members and directors. *Brazilian Business Review*, 19(6), 607–625. <https://doi.org/10.15728/bbr.2022.19.6.2.en>
- Chang, X., & Zhang, H. (2015). Managerial entrenchment and firm value: A dynamic perspective. *Journal of Financial and Quantitative Analysis*, 50(5), 1083–1103. <https://doi.org/10.1017/S0022109015000423>
- Complementary Law No. 196, August 22th, 2022. Altera a Lei Complementar nº 130, de 17 de abril de 2009 (Lei do Sistema Nacional de Crédito Cooperativo), para incluir as confederações de serviço constituídas por cooperativas centrais de crédito entre as instituições integrantes do Sistema Nacional de Crédito Cooperativo e entre as instituições a serem autorizadas a funcionar pelo Banco Central do Brasil; e dá outras providências. http://www.planalto.gov.br/ccivil_03/Leis/LCP/Lcp196.htm
- Cremers, M., & Ferrell, A. (2014). Thirty years of shareholder rights and firm value. *The Journal of Finance*, 69(3), 1167–1196. <https://doi.org/10.1111/jofi.12138>

- Donaldson, J., Malenko, N., & Piacentino, G. (2020). Deadlock on the board. *The Review of Financial Studies*, 33(10), 4445–4488. <https://doi.org/10.1093/rfs/hhaa006>
- Dyck, A., & Zingales, L. (2004). Private benefits of control: An international comparison. *The Journal of Finance*, 59(2), 537–600. <https://doi.org/10.1111/j.1540-6261.2004.00642.x>
- Fama, E., & Jensen, M. (1983). Separation of ownership and control. *The Journal of Law and Economics*, 26(2), 301–325. <https://doi.org/10.1086/467037>
- Gompers, P., Ishii, J., & Metrick, A. (2003). Corporate governance and equity prices. *The Quarterly Journal of Economics*, 118(1), 107–156. <https://doi.org/10.1162/00335530360535162>
- Gorton, G., & Schmid, F. (1999). Corporate governance, ownership dispersion and efficiency: Empirical evidence from Austrian cooperative banking. *Journal of Corporate Finance*, 5(2), 119–140. [https://doi.org/10.1016/S0929-1199\(98\)00019-4](https://doi.org/10.1016/S0929-1199(98)00019-4)
- Grossman, S., & Hart, O. (1986). The costs and benefits of ownership: A theory of vertical and lateral integration. *Journal of Political Economy*, 94(4), 691–719. <https://doi.org/10.1086/261404>
- Hansmann, H. (1996). *The ownership of enterprise*. The Belknap Press of Harvard University Press.
- Hart, O., & Moore, J. (1990). Property rights and the nature of the firm. *Journal of Political Economy*, 98(6), 1119–1158. <https://doi.org/10.1086/261729>
- Hart, O., & Moore, J. (1996). The governance of exchanges: Members’ cooperatives versus outside ownership. *Oxford Review of Economic Policy*, 12(4), 53–69. <https://doi.org/10.1093/oxrep/12.4.53>
- Hart, O., & Moore, J. (1998). Cooperatives vs. outside ownership (Working Paper n. 6421). *National Bureau of Economic Research*. https://www.nber.org/system/files/working_papers/w6421/w6421.pdf
- Hayes, A. (2018). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach* (2nd ed.). The Guilford Press.
- Hermalin, B., & Weisbach, M. (1998). Endogenously chosen boards of directors and their monitoring of the CEO. *The American Economic Review*, 88(1), 96–118. <https://www.jstor.org/stable/116820>
- Jensen, M. (1986). Agency costs of free cash flow, corporate finance, and takeovers. *The American Economic Review*, 76(2), 323–329. <https://www.jstor.org/stable/1818789>
- Karpoff, J., & Wittry, M. (2018). Institutional and legal context in natural experiments: The case of state antitakeover laws. *The Journal of Finance*, 73(2), 657–714. <https://doi.org/10.1111/jofi.12600>
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. (2000). Investor protection and corporate governance. *Journal of Financial Economics*, 58(1–2), 3–27. [https://doi.org/10.1016/S0304-405X\(00\)00065-9](https://doi.org/10.1016/S0304-405X(00)00065-9)
- Law No. 5764, December 16th, 1971. Define a Política Nacional de Cooperativismo, institui o regime jurídico das sociedades cooperativas, e dá outras providências. http://www.planalto.gov.br/ccivil_03/LEIS/L5764.htm
- Leggett, K., & Strand, R. (2002). Membership growth, multiple membership groups and agency control at credit unions. *Review of Financial Economics*, 11(1), 37–46. [https://doi.org/10.1016/S1058-3300\(01\)0003](https://doi.org/10.1016/S1058-3300(01)0003)
- Pinheiro, M. (2008). *Cooperativas de crédito: História da evolução normativa no Brasil* (6th ed.). BCB.
- Rasmusen, E. (1988). Mutual banks and stock banks. *The Journal of Law and Economics*, 31(2), 395–421. <https://doi.org/10.1086/467162>

- Renneboog, L., & Vansteenkiste, C. (2019). Failure and success in mergers and acquisitions. *Journal of Corporate Finance*, 58, 650–699. <https://doi.org/10.1016/j.jcorpfin.2019.07.010>
- Resolution No. 4434, August 15th, 2015. Dispõe sobre a constituição, a autorização para funcionamento, o funcionamento, as alterações estatutárias e o cancelamento de autorização para funcionamento das cooperativas de crédito e dá outras providências. https://www.bcb.gov.br/pre/normativos/busca/downloadNormativo.asp?arquivo=/Lists/Normativos/Attachments/48507/Res_4434_v1_O.pdf
- Rubin, G., Overstreet, G., Beling, P., & Rajaratnam, K. (2013). A dynamic theory of the credit union. *Annals of Operations Research*, 205, 29–53. <https://doi.org/10.1007/s10479-012-1246-7>
- Straska, M., & Waller, H. (2014). Antitakeover provisions and shareholder wealth: A survey of the literature. *Journal of Financial and Quantitative Analysis*, 49(4), 933–956. <https://doi.org/10.1017/S0022109014000532>

AUTHOR'S CONTRIBUTION

The authors contributed to every step of this work.

FINANCIAL SUPPORT

This work was realized with support from the Brazilian Coordinating Body for the Improvement of Higher Education Personnel (CAPES) – Finance Code 001.

CONFLICTS OF INTEREST

We declare that there were no conflicts of interest.

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