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ORIGINAL ARTICLE

Use of the tax benefit of conventional remuneration of share capital by Portuguese companies

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ABSTRACT

This article aimed to analyze the use of the tax benefit of conventional remuneration of share capital (CRSC) by Portuguese companies and perceive the influence of tax policies on their financing decisions. Most of the studies are based on the relationship between financing through debt capital and taxation, in which evidence is found that tax benefits influence the capital structure of companies. There is a lack of studies in Portuguese companies. The article is relevant as it adds the increase in capital variable, because in some countries, particularly Portugal, there are also tax incentives through the own-capital financing route. Thus, this investigation provides results of Portuguese companies choosing own-capital financing before and after tax changes that incentivize its use. The empirical study was conducted through a survey questionnaire, using a sample composed of 324 Portuguese companies with economic activity. The article contributes to the study of the relationship between own-capital financing and the existing tax law in Portugal. The tax benefit of CRSC has not been enough for companies to alter their financing policy when they have to choose between resorting to debt capital and injecting new funds through capital holders. However, this incentive has led to a reduction in debt capital, through its conversion into capital, and an increase in capital through the incorporation of earnings generated, with both these practices potentially representing tax planning opportunities. Despite there being the perception that the acceptance of interest as a tax expense favors company financing through debt capital, there is recognition that this benefit incentivizes the capitalization of companies and their financing through own capital, as an alternative to debt capital, especially in medium-sized companies.

Keywords: capital structure, tax benefit, financing, conventional remuneration, share capital.

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1. INTRODUCTION

This article intends to analyze the use of the tax benefit of conventional remuneration of share capital (CRSC) by Portuguese companies and perceive the influence of tax policies on their financing decisions. For this we used as a data collection methodology a survey questionnaire answered by 324 Portuguese companies with economic activity. It was disclosed via business associations and was available to answer for one month in 2021.

On one hand, Lewellen and Lewellen (2011) state that the impact of taxes over financing and investment decisions has long been studied (Princen, 2012). On the other hand, Beattie et al. (2006) and Heider and Ljungqvis (2015) mention that the understanding of companies' capital structures is still incomplete, given that it is a complex and multidimensional topic. For that reason, Fama (2011) identifies the challenge of producing evidence regarding how taxes influence companies' financing decisions.

Graham (2003) believes that taxes affect capital structure decisions, the organizational and restructuring form, payments and compensations policy, and management risk. Taxes are an essential factor of the business world and should be integrated into the analysis of company decisions. However, no consensus is seen on how these affect investment and financing decisions (Chen & Frank, 2016). For Graham (2013), most studies on their impact assume that the marginal source of financing is own capital and that dividends are exogenously corrected.

Most of the studies are based on the relationship between financing through debt and taxation, in which evidence is found that the tax benefits influence the capital structure of companies (Gordon & Lee, 2001; Graham, 2000; MacKie-Masson, 1990). For that reason, we believe it is important to analyze own-capital financing, an area in which we highlight the studies of An (2012), in China, and Silva et al. (2019), in Brazil.

2. THEORIES RELATED WITH THE FINANCING STRUCTURE OF COMPANIES

The theories related with company financing began to be studied by Durand (1952), gaining new proportions with Modigniani and Miller (1958, 1963).

Durand (1952) defended the existence of an optimal capital structure capable of maximizing company value. In his model, the cost of debt capital is lower than that of own capital, given that the cost of third-party financing constitutes a negative component of taxable income. Optimal indebtedness would be where, by increasing it, the company would obtain the lowest cost of capital possible and would, consequently, increase its value [as mentioned by Nascimento (2012)].

Modigliani and Miller (1958) argued that a company's cost of capital is independent of the level of indebtedness, that is, they believed that its value is a function of expected returns (future cash flows) and the risks of the business. However, that idea was based on a perfect market, which led to numerous criticisms [as mentioned by Nascimento (2012)]. Consequently, Modigliani and Miller (1963) restructured that study, considering the influence of a reduction in the tax burden on company value [as mentioned by Nascimento (2012)].

Jensen and Meckling (1976) suggest resorting to debt as a path to reducing agency costs. The elimination of those costs lay at the genesis of the development of agency theory, for which we can highlight the notable contributions of Ang (1991), Diamond (1989), Harris and Raviv (1991), and Jensen and Meckling (1976).

Information asymmetry is another factor that affects the financing policy of companies, given that managers have information unknown to investors. Therefore, to try to rectify that factor, signaling theory emerged, set out by Ross (1977), and also covered by Leland and Pyle (1977), in which investors tend to consider indebtedness as a sign of company quality.

Miller (1977) took into account the tax burden on the holders of debt capital and the personal taxes alluding to partners/shareholders. In effect, the author introduced the tax effect in his model, whether on companies or on those who finance them, in which the company's aim is to maximize the income available to distribute to investors and not only the minimization of its tax burden. Thus, the investors' reaction is reflected in the supply and demand behavior in the debt market defined by the author.

Far from being unanimous, the studies of Durand (1952), Miller (1977), and Modigliani and Miller (1958, 1963) represent a milestone in the investigation of company capital structure, opening up space for the emergence and development of new studies and theories. There then emerged two modern theories of capital structure: pecking order and trade-off.

Pecking order theory, also known as the theory of the hierarchy of sources, was initially proposed by Myers

(1984) and subsequently covered by Myers and Majluf (1984). This theory assumed the existence of information asymmetry between managers and investors in which the former have privileged information regarding the risks, the returns on investments, or the growth opportunities of the companies under their management. Thus, companies follow a hierarchical order of preference for types of financing of their activities. They primarily resort to self-financing (using income generated by the company), followed by debt capital and, finally, via the funds captured through new share issuances (the market).

Trade-off theory, also known as equilibrium theory, establishes that companies seek an optimal capital structure in which there can be a combination between own and debt capital capable of maximizing their value and minimizing their costs related with debt, considering the deductibility, for tax purposes, of financing costs. According to this theory, companies should increase their debt until the values of the fiscally accepted financial charges are exactly offset by the increase in the present value of the costs of financial distress (Brealey et al., 2008). Vieira (2010) highlights that equilibrium is obtained when the costs of bankruptcy are equivalent to the fiscally accepted spending on debt, indicating the existence of an optimal capital structure. From that point, an increase in debt will result in a reduction in company value.

3. THE TAX FACTOR IN FINANCING DECISIONS: SOME EMPIRICAL STUDIES

Taxes potentially affect the real decisions and policies of companies; however, the order of importance is still considered, for example by Hanlon and Heitzman (2010), to be an open question in the literature. In the literature, there is evidence on the relationship between capital structure decisions and the tax incentives provided to companies [for example, Auerbach (2002) and Graham (2008)].

In a sample of the 500 biggest Brazilian companies covering the period from 2001 to 2003, Pohlmann (2005) found that taxation affects capital structure decisions and that the relationship occurs in the same direction, that is, the higher the tax burden, the greater the indebtedness.

Beattie et al. (2006) investigated companies listed in the United Kingdom, which were heterogeneous in their capital structure, and concluded that institutional differences have a significant impact on financing decisions. The modern theories of capital structure (trade-off and pecking order) contribute to decision-making practice, although certain aspects of these are refuted (Beattie et al., 2006).

Reinhard (2011) analyzed the influence of taxes and the tax changes introduced by the 2000 tax reform over financing and investment decisions, using a sample of 135 German companies quoted on the stock exchange, for the period from 1996 to 2005. The author verified the existence of an increase in the influence of taxation over financing and investment decisions after that reform. However, the companies did not deliberately adjust their financial structures with the sole aim of reducing tax payments, but rather due to the specific tax regulations of the country, together with the domination of the banks embedded in the German financial system, covering the risk of bankruptcy and tax savings.

During the period from 2000 to 2005, Overesch and Voeller (2011) investigated the effect of the difference in the taxation of debt and asset financing in capital structures, focusing on companies from 23 European countries (Germany, Austria, Belgium, Czech Republic, Slovakia, Slovenia, Spain, Estonia, Finland, France, Greece, Netherlands, Hungary, Ireland, Iceland, Italy, Latvia, Luxembourg, Norway, Poland, Portugal, United Kingdom, Switzerland). The study resulted in evidence that the capital structures of smaller companies tend to respond strongly to changes in the tax benefit of debt.

Boulton et al. (2012) studies the tax impact produced by Law n. 9,249, of December 26th of 1995, over the modality of cash distribution to shareholders: dividends and interest on own capital. The sample was composed of all the non-financial companies listed on the Bovespa in the period from 1996 to 2007. The authors concluded that the tax burden is smaller when there are interest payments on own capital relative to the payment of dividends, given the incentive to deduct that interest when calculating the company's taxable income.

Financial theory recommends aligning the tax treatment of debt and own capital (Hebous & Ruf, 2017). Some countries have introduced the allowance for corporate equity (ACE) model, with the aim of achieving tax neutrality – it attributes tax deductibility similarly to the return on own capital and spending on interest (Hebous & Ruf, 2017; Princen, 2012). Princen (2012) found strong evidence of the impact of taxation over the debt policies of companies. With effect, he proposes a new approach to the topic, using the 2006 tax reform in Belgium, which is characterized by the introduction of a tax benefit over capital holdings.

Along these lines, we highlight the study conducted by An (2012) on the approval of a tax law in China in 2007, which equally considers own-capital financing, concluding that taxation plays a predominant role in decision making relating to capital structure, with decisions not being limited to modern financial theory.

De Mooij (2012) lists the first experiments with variants of the ACE, including in countries such as Croatia, Austria, and Italy. These were subsequently abandoned, highlighting that, to date, variants are in effect in Belgium [as mentioned by Princen (2012)], Brazil, and Latvia. According to Kock and Gérard (2018) and Tomaz (2012), Latvia adopted an ACE model in 2009 and Italy resumed the experiment in 2011, having applied a reduced version of the system in the period from 1997 to 2003, characteristic of dual taxation systems. The studies conducted by Klemm (2007) present the time sequence of the adoption of the ACE models, which served as a basis for the elaboration of Table 1.

Table 1
The time sequence of the adoption of the allowance for corporate equity (ACE) models

	Introduction	In effect
Portugal	1986	1986-1987
	2008	In effect
Croatia	1994	1994-2000
Brazil	1996	In effect
Italy	1997	1997-2003
	2011	In effect
Austria	2000	2000-2004
Belgium	2006	In effect
Latvia	2009	2009-2014

Source: *Elaborated by the authors.*

According to Table 1, ACE equally exists in Brazil. Portal and Laureano (2017) analyzed whether the Brazilian model reduces the debt tax bias, specifically whether the effect of the continuous treatment of interest on own capital negatively affects the level of financial leverage, having concluded that this fact increases the debt tax bias. For the authors, ACE produces a rebound effect on the assumption of risk and on capital structure, and it is similar in companies with different levels of financial constraints, and they warn that there may be an "ACE clientele effect" due to the heterogeneity in shareholders' tax preferences.

Silva et al. (2019) concluded that most Brazilian companies are unaware of the benefit of the tax compliance bonus, given the inexistence and/or lack of disclosure by the bodies responsible for that incentive.

Hebous and Ruf (2017) studied the effects of adopting the ACE model on debt financing, passive investment, and active investment of multinational companies with headquarters in Germany. The results suggest that this model reduces the debt ratio of multinational affiliates and increases intragroup loans; however, it has no effects over production investment. Also, for the authors, the implementation of a unilateral ACE model represents a tax planning opportunity, through a structure that combines the benefits of the model itself with interest deductions.

Pfaffermayr et al. (2013) identify a positive interaction between the taxation of companies and their age. The impact of taxation on the debt of companies increases throughout their longevity. First, they verified the existence of a positive relationship between the taxation and the debt level of a company, suggesting that the tax system provides a systematic stimulus for greater financial leverage. Next, they obtained evidence that the company's age has a negative impact on the proportions of debt, revealing that older companies are less dependent on debt than younger ones. Finally, they observed a positive relationship between the taxation and the age of companies, that is, the debt ratio of older companies is more intensely affected by a tax rate reduction than in younger ones.

Feld et al. (2013) concluded that capital structure decisions are positively affected by taxes, with the effect being quantitatively relevant. Taxation rates are correlated with capital structures, which suggest that companies can increase their value through the optimal choice of debt.

Faccio and Xu (2015) state that taxation performs a significant role in companies' choice of capital structure. For the authors, institutions tend to increase their financial leverage after an increase in the direct taxes on companies or after an increase in the rate on dividends in the shareholder sphere (Liapis et al., 2020).

Kramer (2015) analyzed how the shareholder structure affects the relationship between taxation and the capital structure of Scandinavian companies. His study equated company heterogeneity. The author concluded that an increase in taxation over these companies positively affects the debt/assets ratio and that this effect is stronger for companies whose capital is concentrated.

In parallel, the author mentions that ownership performs a predominant role by controlling other potentially important determinants of the relationship between company taxation and capital structure.

Clemente-Almendros and Sogorb-Mira (2016) tested whether the explanation of the tax incentives related with capital structure is applicable to companies quoted on the Spanish stock exchange during the period from 2007 to 2013. The authors concluded that the marginal tax rates affect the debt policies of those companies, and the existence of tax benefits unrelated to debt represents an alternative to its use, operating as a sort of "tax shelter."

Rezende (2018) believes that, in the Brazilian context, there are indications that tax incentives have a positive and direct impact on capital structure, on the level of permanent investment, and on company earnings. Yet, it is not possible to infer whether that impact is marginal or not. Due to the tax incentives and the weight of the tax burden, managers are incentivized to expend efforts on practicing tax planning for taxes on the aggregate value of companies, given that this tax has a direct impact on their current capital, because it is due monthly while taxes on earnings can be paid according to monthly or quarterly estimates.

Vaz da Fonseca et al. (2020) formulated the hypothesis that tax legislation incentivizes the use of debt capital and analyzed whether the tax benefit derived from debts – accepted interest spending – has a positive effect on the capital structure of Brazilian companies. For the effect, they analyzed 259 non-financial companies in Brazil, in the period from 2008 to 2018, using dynamic panel data regression. The authors concluded that: there is a positive effect of debt on capital structure; taxation constitutes a systematic incentive for safeguarding greater leverage; and Brazilian companies, despite the weight of the tax burden in the country, do not take maximum advantage of the tax benefits of debt.

Based on trade-off theory, Jin (2021) studied how tax aggressiveness concerning Chinese companies affects the use of debt capital. The author found empirical evidence that robustly supports the idea that tax aggressiveness can lead to a reduction in the use of debt and that this association is conditioned by the size and profitability of the company. From focusing on Chinese companies, in which government ownership and control are more relevant and persistent, it is perceivable that government ownership helps to strengthen the previously mentioned association.

4. PORTUGUESE TAX LEGISLATION APPLICABLE TO COMPANY FINANCING

In Portugal, financing through own capital or borrowing has tax implications.

4.1 Debt Capital

According to nos. 1 and 2, line c), of article 23 of the Corporate Income Tax Code (CIRC) (Autoridade Tributária e Aduaneira, 2021a), expenses of a financial nature make a negative contribution to the determination of taxable income. However, there is a specific limitation foreseen on line m) of n. 1 of article 23-A of the CIRC, relating to interest on injections made by partners to the company, in the part in which they exceed the rate defined by Decree n. 279/2014, of December 30th. There is equally an overall limit on the deductibility of net financing expenses, foreseen in article 67 of the CIRC, which will be the highest between: a) 1,000,000,000 EUR or b) 30% of the taxable EBITDA (earnings before interest, taxes, depreciation, and amortization).

4.2 Own Capital

In Portugal, there is a tax benefit for financial through own capital – CRSC. This incentive was effect in 1986 and 1987, in the period from 2008 to 2013, subsequently featuring in article 41 of the Statute of Fiscal Benefits (SFB) (Autoridade Tributária e Aduaneira, 2021b), as of 2014, reinforcing the intention of the Portuguese state for there to be greater financing by this means. Table 2 shows the evolution of this benefit after its inclusion in the SFB (Autoridade Tributária e Aduaneira, 2021b).

Table 2
Evolution of article 41-A of the Statute of Fiscal Benefits (Autoridade Tributária e Aduaneira, 2021b) – Conventional remuneration of share capital (CRSC)

	Financing through own capital up to 2016	Financing through own capital in 2017	Financing through own capital as of 2018
Subjective sphere	Micro, small, or medium company resident in Portugal	Any company resident in Portugal	Any company resident in Portugal
Eligible participants in the raising of capital	Private individuals, venture capital companies, or venture capital investors	Private individuals and companies	Private individuals and companies
Form of raising eligible capital	Money	Money and kind – Conversion of injections or loans from partners made as of 01/01/2017	Money and kind – Conversion of injections or loans from partners made as of 01/01/2017; conversion of third-party credits generated as of 01/01/0218; earnings generated in the same period, providing the increase in capital is made before the tax returns for that period are sent (model 22).
Tax benefit	5% of eligible capital	7% of eligible capital	7% of eligible capital
Limits	Maximum tax benefit during its duration = 200,000 EUR (*minimis* rules)	Maximum amount of eligible capital = 2,000,000 EUR	Maximum amount of eligible capital = 2,000,000 EUR
Duration of the benefit	Four years (year of fundraising plus next three years)	Six years (year of fundraising plus next five years)	Six years (year of fundraising plus next five years)

Source: *Adapted from Cruz (2018, p. 30).*

5. EMPIRICAL STUDY

The empirical study is based on a survey questionnaire for the data collection, with a sample composed of 324 Portuguese companies. The research questions are: (i) Do Portuguese companies take advantage of the tax benefit of CRSC?; (ii) What is the perception regarding the influence of tax policies on financing decisions?

5.1 Objective and Methodology

The investigation aims to analyze the use of the CRSC tax benefit by Portuguese companies and, equally, to perceive the influence of tax policies on the financing decisions of Portuguese companies.

For that, we used a survey questionnaire, a methodology that enables us to organize, normalize, and control the data so that the information sought can be rigorously collected [for example Fortin (2009) and Lakatos and Marconi (2010)]. The questionnaire was validated using a pre-test that consists of a set of verifications made to confirm that it is actually successfully applicable, in the sense of giving an effective answer to the questions (Baptista and Sousa, 2011). According to these authors, a preliminary analysis of the results obtained enables the investigator, specifically, to begin to make possible interpretations and eliminate or improve questions that are not at all related with the investigation. Thus, the pre-test involved the collaboration of one respondent from the population and an investigator from the area of taxation.

The survey was built using the FormsUA online platform, of the University of Aveiro, disclosed with the help of business associations, and it was made available for completion in the period from 04/13/2021 to 05/10/2021, divided into two parts. In the first, we gathered data on the entity investigated. The second part of the survey enabled us to gather information to achieve the objectives of the investigation, whose content we related, in Table 3, with the subjects addressed.

Table 3
Relationship between the questions of the second part of the survey questionnaire and the literature review

Question	Objective	Article topic	Author
1. Indicate the form of financing favored by the company up to 2013. 2. Indicate the form of financing favored by the company in the period from 2014 to 2020.	Collect information about the company's choice of financing option.	2	Brealey et al. (2008), Durand (1952), Miller (1977), Modigliani & Miller (1958, 1963), Myers (1984), Myers & MajIuf (1984)
3. Knowledge of CRSC 3.1. Do you know of the existence of the CRSC tax benefit foreseen in the SFB? 3.2. Indicate how you know of the existence of CRSC. 3.3. Indicate your level of knowledge about CRSC.	Calculate the respondents' knowledge regarding the CRSC tax benefit and its disclosure.	3	De Mooij (2012), Klemm (2007), Kock & Gérard (2018), Princen (2012), Silva et al. (2019), Tomaz (2012)
4. Use of CRSC 4.1. Has your company already used the CRSC benefit? 4.2. When did your company use CRSC? 4.3. Indicate the year(s). 4.4. Indicate how.	Analyze the capital structure of Portuguese companies before article 41-A of the SFB. Calculate the effect of article 41-A of the SFB on the definition of capital structure.	3 and 4	Cruz (2018), Hebous & Ruf (2017), Pfaffermayr et al. (2013), Tomaz (2012)
5. Study of perception 5.1. The limit on the deductibility of net financing expenses influences your company's type of financing. 5.2. The limit on the deductibility of net financing expenses influences the value of your company's debt financing. 5.3. The acceptance of interest as a tax expenses is a factor that favors company financing through borrowing. 5.4. The limit on the deductibility of net financing expenses is a factor that favors reducing company financing through borrowing. 5.5. The tax benefit of CRSC influences the type of your company's financing. 5.6. The tax benefit of CRSC influences the value of your company's own-capital financing. 5.7. The tax return of CRSC is a factor that favors own-capital financing. 5.8. The financing decisions in your company are affected by the tax aspects in the investors' sphere.	Analyze the influence of tax policies on company financing decisions. Analyze the capital structure of Portuguese companies up to the introduction of article 41-A of the SFB. Calculate the effect of article 41-A of the SFB on the definition of company capital structure.	1 and 3	An (2012), Beattie et al. (2006), Boulton et al. (2012), Clemente-Almendros & Sogorb-Mira (2016), Faccio & Xu (2015), Gordon & Lee, (2001), Graham (2000), Hebous & Ruf (2017), Jin (2021), Kramer (2015), MacKie-Masson (1990), Overesch & Voeller (2011), Portal & Laureano (2017), Reinhard (2011), Rezende (2018), Silva et al. (2019), Tomaz (2012), Vaz Da Fonseca et al. (2020)

SFB = Statute of Fiscal Benefits; CRSC = conventional remuneration of share capital.
Source: *Elaborated by the authors.*

The data were analyzed using Microsoft Excel and the IBM SPSS V.26 statistical software. In Table 4 we present a summary of the statistical treatment.

Table 4
Statistical treatment of the data collected via the survey questionnaire

Description	Statistical treatment
Characterization of the sample and of the respondent	Analysis of qualitative variables The analysis of the qualitative variables involved studying the amounts or proportions of each form of fundraising or classes of the variable under study. This requires non-parametric methods from the outset, given that the sample distribution is rarely conveniently explained by continuous probability distributions (Marôco, 2018). Analysis of absolute and relative frequencies The absolute frequencies indicate the number of times the value was observed in the sample, represented in value; the relative frequencies represent the proportion of equal values in the sample, presented in percentage (Hall et al., 2011).
Form of financing favored by the company	Non-parametric tests The non-parametric tests do not require, from the outset, knowledge of the sample distribution, so they should be applied as an alternative to the parametric tests (Marôco, 2018). In the data treatment, we conducted the binomial test, the chi-squared test, the Friedman test, and the Mann-Whitney test. Binomial test (0.05 significance level) This is applied to an independent sample in which the qualitative variable is dichotomous; it compares the observed frequencies with those that are expected in a nominal distribution (Pestana & Gageiro, 2014).

Table 4
Cont.

Description	Statistical treatment
Knowledge of CRSC	Chi-squared test (0.05 significance level) The Pearson chi-squared test can only be rigorously applied when all of the following conditions are verified: sample size greater than 20, all the cells have an expected frequency higher than 1, and when at least 80% of the cells have expected frequencies higher than or equal to 5 (Marôco, 2018; Pestana & Gageiro, 2014). However, when the application assumptions are not satisfied, we can resort to other chi-squared tests, specifically the Fisher exact test, as suggested by Hill and Hill (2002), Marôco (2018), and Pestana and Gageiro (2014), which is potent when the intention is to compare two small independent samples regarding a dichotomous nominal variable, grouped in 2 x 2 type contingency tables (Marôco, 2018).
Use of CRSC	Friedman test (0.01 significance level) This can be used when there are three or more pairing conditions, in which each variable is classified on at least an ordinal level scale (Pestana & Gageiro, 2014). The authors mention that, after applying the test, the highest classifications correspond to the least favored forms of financing.
Tax management – Study of perception	Mann-Whitney test This is a test that enables a comparison between two independent samples, of sizes n_1 and n_2, and it is an alternative to the *t* test for two independent samples. With that test, we compare the location center of two samples as a way of detecting differences between them (Regra, 2010).

CRSC = conventional remuneration of share capital.
Source: *Elaborated by the authors.*

5.2 Presentation and Analysis of the Results

This point aims to present and interpret the results obtained through our survey questionnaire.

5.2.1 Characterization of the sample and of the respondent

The sample of our investigation is formed of 324 Portuguese companies that mainly engage in for-profit activities. The respondent companies are mainly microenterprises (around 62% of the sample), with the total number of micro, small, and medium companies corresponding to 91%. The service sector is the most represented (50%) and the agriculture, forestry, and fishing sector is the least represented (4%).

The individuals from the companies that answered the survey were 52% female and 48% male. Around a fourth of the respondents perform the role of accounts technician and roughly a fifth carry out the function of certified accountant. Other roles are equally represented, such as those of administrator/manager, financial/administrative director, manager, as well as auditors. Of the respondents, 48% are graduates, with 41% having postgraduate degrees, masters, or PhDs.

5.2.2 Form of financing favored by the company

In the companies constituted up to 2013 (Figure 1), around 60% favored, up to that year, self-financing, with almost half of the companies using an increase in own capital as a last source of financing.

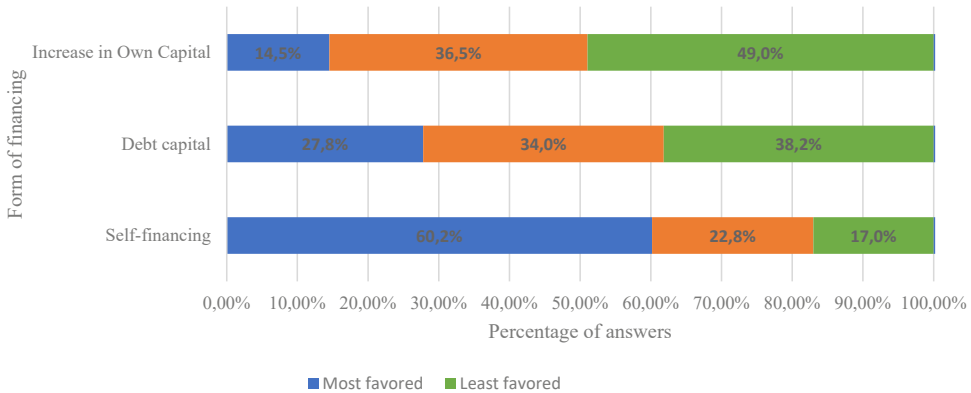

Figure 1 *Form of financing favored by the companies up to 2013 for those constituted up to that year*
Source: *Elaborated by the authors.*

Figure 2 presents the preference of these companies for the period from 2014 to 2020. Despite the legislative changes introduced in Portugal, we verified that in the period from 2014 to 2020, the form of financing favored by these companies remained unaltered.

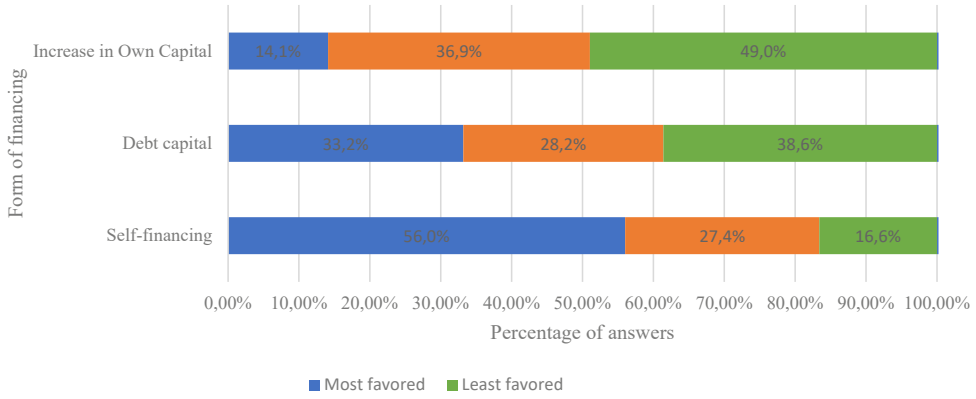

Figure 2 *Form of financing favored by the companies between 2014 and 2020 for companies constituted up to 2014*
Source: *Elaborated by the authors.*

Most of the companies constituted in 2014 or after favor self-financing. Figure 3 shows that, unlike the oldest companies, more than half use debt capital as a last source of financing.

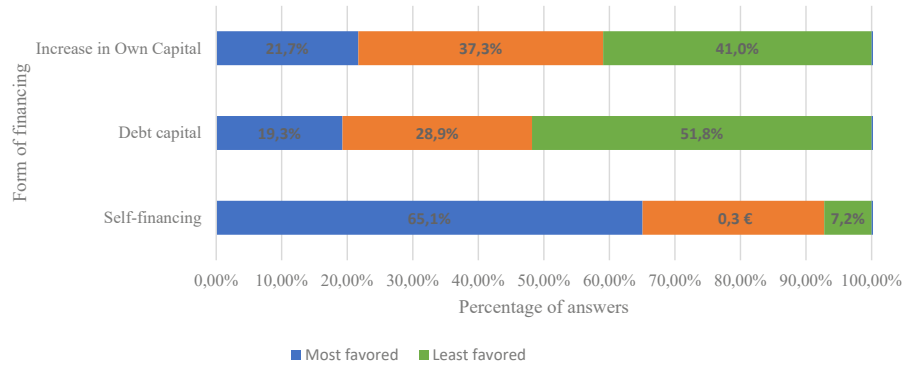

Figure 3 *Form of financing favored by the companies constituted in 2014 or after and up to 2020*
Source: *Elaborated by the authors.*

In a global analysis of the companies in the sample, these prefer to use their own funds, that is, this means that the net income for the period (NIP) not distributed as profit and not convertible into liquidity is used as a main source. In the case of this not being sufficient, most primarily resort to the alternative of debt capital, with the hypothesis of increasing capital being the last solution (Figure 4).

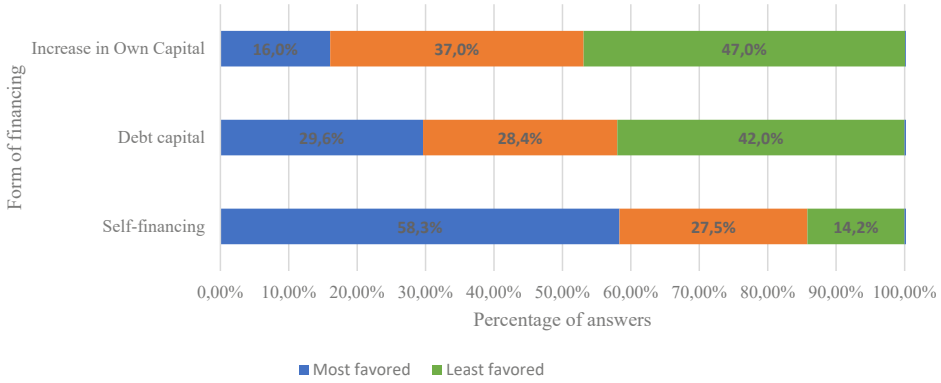

Figure 4 *Global form of financing of the companies*
Source: *Elaborated by the authors.*

To analyze the preference of the companies in our sample, we resorted to the Friedman test. For that, we formulated the following hypotheses:

H_0: there is no difference in the companies' preferred form of financing up to 2013.

H_a: there is a difference in the companies' preferred form of financing up to 2013.

Table 5
Friedman test for the financing preferences up to 2013 of the companies created up to that year

Test statistics*	
n	241
Chi-squared	76.296
df	2
Sig.	0.000

df = degrees of freedom.
** = Friedman test.*
Source: *Elaborated by the authors.*

The Friedman test presents a p-value of 0.000, so we reject the null hypothesis (Table 5) and conclude that there is statistically significant evidence to state that the companies constituted up to 2013 have differences in preference between forms of financing.

Table 6 shows that the form of financing most favored by these companies is self-financing and the least favored is an increase in own capital.

Table 6
Ranking of the financing preferences up to 2013 of the companies constituted up to that year

Rank	**Mean rank**
Self-financing	1.58
Debt capital	2.09
Increase in own capital	2.33

Source: *Elaborated by the authors.*

We equally applied the Friedman test for the contexts analyzed in the rest of the previous figures. Thus, we tested the following hypotheses:

H_0: there is no difference in preference in the form of financing, for the period from 2014 to 2020, for the companies consisted up to 2013.

H_a: there is a difference in preference in the form of financing, for the period from 2014 to 2020, for the companies consisted up to 2013.

Table 7
Friedman test for the financing preferences for the period from 2014 to 2020 of the companies constituted up to 2013

Test statistics*	
n	241
Chi-squared	69.253
df	2
Sig.	0.000

df = degrees of freedom.
** = Friedman test.*
Source: *Elaborated by the authors.*

The Friedman test presents a p-value of 0.000, so we reject the null hypothesis (Table 7). Therefore, there is statistically significant evidence that the companies constituted up to 2013 have – and continued to have – differences in preference between different forms of financing, in the period from 2014 to 2020.

From Table 8 we conclude that, for that time period, these companies prefer to resort to self-financing, with an increase in own capital being the least used source. Comparing the two periods for these companies (tables 6 and 8), we verify that the respective orders of preference did not change after the introduction of CRSC in the SFB (Autoridade Tributária e Aduaneira, 2021b).

Table 8
Ranking of the financing preferences in the period from 2014 to 2020 of the companies created up to 2013

Rank	**Mean rank**
Self-financing	1.62
Debt capital	2.04
Increase in own capital	2.34

Source: *Elaborated by the authors.*

The Friedman test was equally conducted to study if there is significance in the difference in the form of financing, for the period from 2014 to 2020, for the companies consisted in 2014 or after. Therefore, we formulated the following hypotheses:

H_0: there is no difference in preference in the form of financing, for the period from 2014 to 2020, for the companies consisted in 2014 or after.

H_a: there is a difference in preference in the form of financing, for the period from 2014 to 2020, for the companies consisted in 2014 or after.

Table 9
Friedman test for the financing preferences for the period from 2014 to 2020 of the companies constituted in 2014 or after

Test statistics*	
n	83
Chi-squared	40.725
df	2
Sig.	0.000

df = degrees of freedom.
** = Friedman test.*
Source: *Elaborated by the authors.*

According to the results presented in Table 9, the Friedman test presents a p-value of 0.000, so we reject the null hypothesis. Consequently, we can conclude that the companies constituted in 2014 or after have differences in preference between different forms of financing. The order presented in Table 10 indicates that the most favored, for that subsample, is self-financing, with debt capital being the least favored.

Table 10
Ranking of the financing options in the period from 2014 to 2020 for the companies created from 2014 onward

Rank	Mean rank
Self-financing	1.47
Increase in own capital	2.23
Debt capital	2.30

Source: *Elaborated by the authors.*

With the execution of these tests, it is possible to highlight that the capital structure of the Portuguese companies created more recently differs a little from the rest of the companies under analysis. Despite them favoring self-financing, for the newest ones, the second form is an increase in capital, while for the oldest ones is it debt capital.

In global terms of the sample, we executed the Friedman test, for the comparable period, with the following hypotheses:

H_0: there is no difference in the preferred form of financing, for the period from 2014 to 2020, for the companies in the sample.

H_a: there is a difference in the preferred form of financing, for the period from 2014 to 2020 for the companies consisted in 2014 or after.

Table 11
Friedman test for the financing preferences for the period from 2014 to 2020

Test statistics*	
n	324
Chi-squared	102.364
df	2
Sig.	0.000

df = degrees of freedom.
** = Friedman test.*
Source: *Elaborated by the authors.*

Based on the results shown in Table 11, with a p-value of 0.000, we reject the null hypothesis. Thus, there is statistically significant evidence to conclude that the companies in the sample, for the period from 2014 to 2020, have different preferences between different forms of financing.

According to the order presented in Table 12, the most favored form of financing is self-financing, with the least favored being an increase in own capital.

Table 12
Ranking of the financing preferences of the companies in the sample in the period from 2014 to 2020

Rank	Mean rank
Self-financing	1.58
Debt capital	2.11
Increase in own capital	2.31

Source: *Elaborated by the authors.*

5.2.3 Knowledge of CRSC

From the study conducted we concluded that most of the respondents have knowledge of the existence of the CRSC tax benefit, with 42% having obtained that knowledge through reading the legislation and 39% through their certified accountant.

To carry out the binomial test we formulated two hypotheses:

H_0: the proportion observed in the two answer groups is equal.

H_a: the proportion in the two groups is not equal.

Table 13
Binomial test relating to knowledge of the tax benefit of conventional remuneration of social capital (CRSC)

		Binomial test				
		Category	n	Observed proportion	Test proportion	Exact significance (bilateral)
Do you know of the existence of the CRSC tax benefit foreseen in the Statute of Fiscal Benefits?	Group 1	Yes	195	0.60	0.50	0.000
	Group 2	No	129	0.40		
	Total		324	1.00		

Source: *Elaborated by the authors.*

Based on Table 13, we reject the null hypothesis, so we conclude that there is a significant difference between the proportion of companies that know of the CRSC tax benefit and those that do not know of it. In light of the results, we can state that most of the companies know of the present tax benefit.

It is noted that, for the highest levels of academic training, most assume to have a reasonable level of knowledge, and there is no significant divergence between genders.

Based on this point, our sample under analysis is now composed of 195 companies whose respondents answered that they had knowledge of the CRSC tax benefit.

5.2.4 Use of CRSC

Of the 195 companies that continue under analysis, most have never used CRSC. Only 22% of those in which the respondents know of its existence have managed to take advantage of this incentive throughout their life.

For this item we conducted the binomial test, based on the following hypotheses:

H_0: the proportion observed in the two answer groups is equal.

H_a: the proportion in the two groups is not equal.

Table 14
Binomial test concerning the use of the tax benefit of conventional remuneration of share capital (CRSC)

		Binomial test				
		Category	n	Observed proportion	Test proportion	Exact significance (bilateral)
Has your company ever used the CRSC tax benefit?	Group 1	No	152	0.78	0.50	0.000
	Group 2	Yes	43	0.22		
	Total		195	1.00		

Source: *Elaborated by the authors.*

According to the results of Table 14, we reject the null hypothesis, so we conclude that most of the companies have not yet used CRSC, despite their knowledge of it.

We tried to understand whether its use may be related with the age of the companies. Thus, we conducted the chi-squared test for which we formulated the following hypotheses:

H_0: the use of the CRSC tax benefit is independent of the year of constitution of the company.

H_a: the use of the CRSC tax benefit is not independent of the year of constitution of the company.

Table 15
Chi-squared test regarding the correlation between using conventional remuneration of share capital (CRSC) and the year of constitution

	Chi-squared test				
	Value	df	Asymptotic significance (bilateral)	Exact significance (2 sides)	Exact significance (1 side)
Pearson chi-squared	0.015*	1	0.903		
Continuity correction**	0.000	1	1.000		
Valid cases (n)	195				

** = 0 cells (0.0%) expected a count lower than 5. The minimum expected count is 11.69.*
*** = solely computed for a 2x2 table.*
Source: *Elaborated by the authors.*

Considering the information in Table 15, we observe that the Pearson chi-squared has a p-value of 0.903, so we do not reject the null hypothesis. Therefore, there is statistically significant evidence to state that the use of the CRSC tax benefit is independent of the year of constitution of the company, that is, it is not possible to define a relationship between the use of that benefit and the company's age.

Through Figure 5, we can verify the situations that gave rise to the obtainment of the benefit. In 32% of the companies, a reduction in the tax base resulted solely from the raising of share capital relating to their constitution, and in 56% through the exclusive strength of increases in capital. We highlight that 12% used it at both points. The fact that there are companies in the sample that only used it at the time of increasing capital may have a number of explanations. This percentage includes 25 companies constituted after 2014, so this fact may have occurred in the period in which that incentive did not exist – before 1986 or in the period from 1988 to 2007. Another possible explanation is them having been constituted in 1986, 1987, or in the period from 2008 to 2013, in which case the lack of knowledge of its existence at that time would be a reason for such behavior. Also included in the 32% are five companies constituted in 2014 or after. In that case, we consider the lack of knowledge, at the date of constitution, to be the only possible explanation.

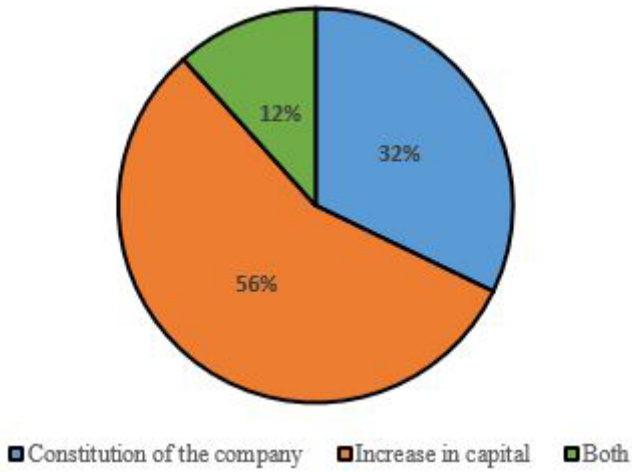

Figure 5 *Knowledge of the existence of the tax benefit of conventional remuneration of share capital foreseen in the Statute of Fiscal Benefits (Autoridade Tributária e Aduaneira, 2021b)*
Source: *Elaborated by the authors.*

From Figure 6 it can be verified that as the size of the company increases, the tendency is for greater use of the benefit.

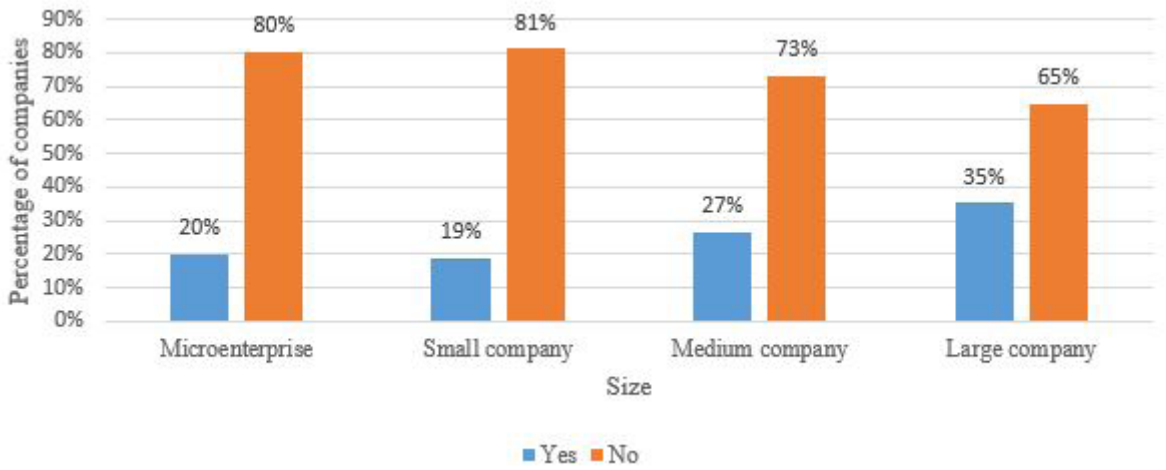

Figure 6 *Size of the companies that have used conventional remuneration of share capital*
Source: *Elaborated by the authors.*

Focusing on the situations of using the incentive through an increase in capital, we verify, through Figure 7, that this is greater for the older companies, as of 2010, with the biggest increase occurring in 2018 and 2019.

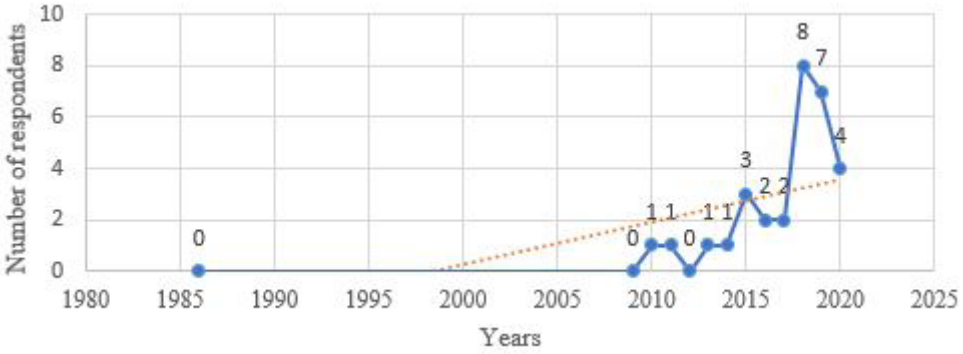

Figure 7 *Increase in capital in the companies constituted before 2014*
Source: *Elaborated by the authors.*

In turn, Figure 8 reflects the increases in capital in the companies constituted in 2014 or after. The respondents' answers suggest a slight rise as of 2018 (also applicable to the situation of the previous figure), which may be sustained, in our opinion, by the extension, as of that year, of the situations that confer the benefit.

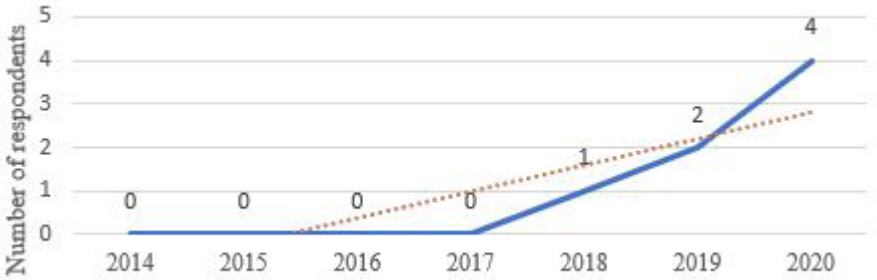

Figure 8 *Increase in capital in companies constituted in 2014 or after*
Source: *Elaborated by the authors.*

We conclude that, for our sample, the companies constituted up to 2013 resort in greater numbers to increases in capital than those constituted in 2014 or after. It is equally verified that the extension of the scope of the type of raising of capital eligible, whether through the conversion of liabilities or the incorporation of NIP, as of 2017 and 2018, respectively, had the result of increasing the number of companies that benefited from CRSC through an increase in capital, as can be seen in Figure 9. Approximately 40% of the companies studied made increases in capital solely through these latter paths mentioned. For that reason, we believe that, at least partially, this legal arrangement has contributed to a reduction in company indebtedness. The results obtained may equally indicate the enactment of tax planning. Therefore, the aim of providing new financial means for the company through the capital holders pathway instead of the injection of debt capital may not be being achieved. However, the tax benefits from reducing indebtedness and retaining capital to finance the company may be having an effect.

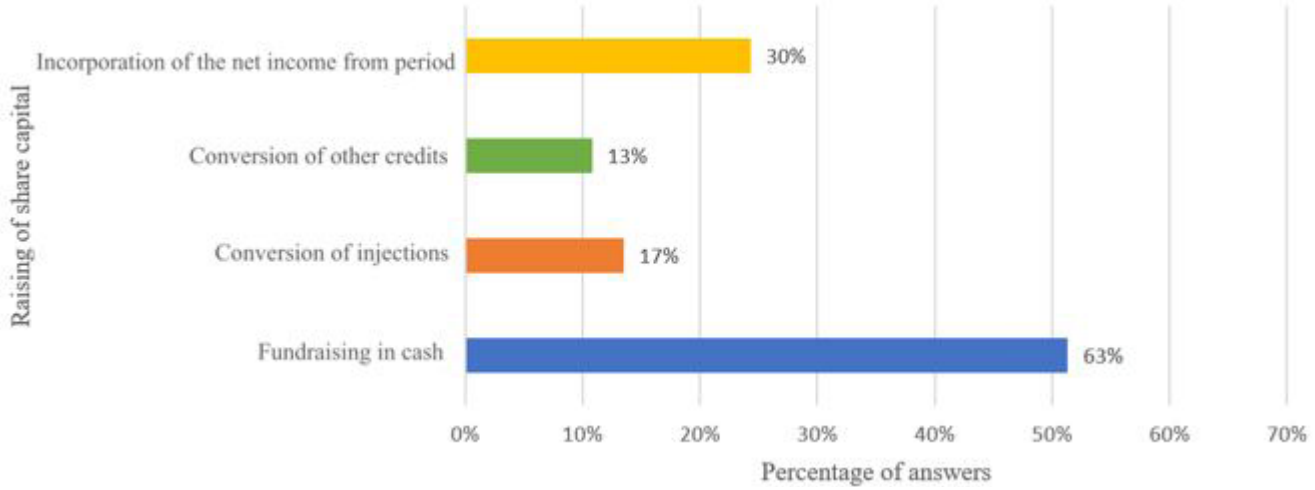

Figure 9 *Forms of raising share capital*
Source: *Elaborated by the authors.*

Therefore, it is possible to state that the tax benefit provided by CRSC has not been enough for companies, at least those in this sample, to change their financing policy when they have to choose between resorting to debt capital and fundraising through capital holders. However, we believe that it has led to a reduction in debt capital, through its conversion into capital, and the obtainment of a tax benefit through self-financing (use of NIP for increases in capital).

5.2.5 Tax management – study of perception

With the aim of obtaining the perception regarding the relationship between the company financing strategy and the tax rules, we applied the Likert scales to a set of questions. The results are shown in Table 16.

Table 16
Likert scale regarding tax management – Study of perception

Statement	Likert scale (%)				
	I totally agree	I agree	I neither agree nor disagree	I disagree	I totally disagree
The deductibility limit on net financing expenses influences your company's type of financing.	8	**36**	**33**	14	9
The deductibility limit on net financing expenses influences the value of your company's financing through debt capital.	8	**34**	**36**	14	8
The acceptance of interest as a tax expenses favors company financing through debt capital.	13	**56**	20	9	2
The deductibility limit on net financing expenses favors a reduction in company financing through debt capital.	4	**42**	**36**	14	4
The CRSC tax benefit influences your company's type of financing.	10	**36**	**34**	17	3
The CRSC tax benefit influences the value of your company's financing through own capital.	8	**38**	**38**	12	4
The CRSC tax benefit is a factor that favors company financing through own capital.	13	**51**	26	8	2
Financing decisions in your company are influenced by the tax aspects in the investors' sphere.	14	**51**	21	10	4

CRSC = conventional remuneration of share capital.
The values in bold indicate the scales with higher absolute values.
Source: *Elaborated by the authors.*

It is not possible to establish a trend between the financing policies of the companies in the sample and the tax law. However, most recognize, on one hand, that the acceptance of interest as a tax expenses favors financing through debt capital, but, on the other hand, that the CRSC tax benefit incentivizes the capitalization of companies and their financing through own capital, as an alternative to debt capital.

Considering size, we highlight that:

- For the statement "the deductibility limit on net financing expenses influences your company's type of financing," the median value is lower in large companies, suggesting that at that size this limit has an influence.
- For the statement "the deductibility limit on net financing expenses influences the value of your company's financing through debt capital," we verified that the median is lower for large and small companies. However, in large ones, the perception is concentrated between "I agree" and the neutral opinion, while in small ones the interquartile interval is greater and there is more disparity.
- Regarding whether "the CRSC tax benefit influences your company's type of financing," we found that the median value is lower in medium-sized companies, which suggests that at that size this limit has an influence.
- For the statement "the CRSC tax benefit influences the value of your company's financing through own capital," we found that the median value is lower in medium and small companies.

Thus, large companies are concerned about the limit of financing costs, while in medium ones CRSC may be relevant at the time of financing decision making. For microenterprises, in general, the tax aspects have no influence.

6. CONCLUSIONS

Our investigation aimed to analyze the use of the CRSC tax benefit by Portuguese companies and perceive the influence of tax policies on financing decisions. The study was developed with a sample of 324 companies, using a survey questionnaire for the data collection.

Most of the companies favor self-financing. Differences are only seen in the definition of the last source of financing: for the oldest ones, it is an increase in capital and for the most recent ones it is debt capital. Therefore, these companies have a preference for the use of their own funds, only resorting to the other forms when self-financing is insufficient. Thus, we conclude that the results we obtained are coherent with pecking order theory (Myers, 1984; Myers & Majluf, 1984).

This scenario may be explained, at least partially, by the lack of knowledge of the CRSC incentive, which in our sample translates to 40%. However, these results diverge from those obtained by Silva et al. (2019), given that most of the Brazilian companies in that study stated they did not know of the existence of the tax compliance bonus.

However, even in those that state they know about CRSC, only 22% have used that incentive. We highlight that almost a third of those companies have used it exclusively in raising capital in relation to company constitution, while 56% have reduced the tax base through increases in capital alone. It is noted that 12% of the companies have used it on both occasions. The reduced use relating to company constitution may potentially be explained by the fact that in the year the company was created the benefit was not contemplated or by the lack of knowledge of its existence.

The companies constituted up to 2013 resort in greater numbers to increases in capital than those created *a posteriori*, a result that corroborates Pfaffermayr et al. (2013).

On one hand, we believe that the benefit of CRSC has not been enough for companies to change their financing policy when they have to choose between resorting to debt capital and making new injections through capital holders. Our results are not consistent with those obtained by Overesch and Voeller (2011), but they corroborate the conclusions of Reinhard (2011). On the other hand, despite the objective of providing new financial resources for the company through capital holders instead of the injection of debt capital perhaps not being achieved, the tax benefits from reducing indebtedness and retained capital may be having an effect, especially through the opportunity for tax planning, as Hebous and Ruf (2017) suggest.

Through the perception study, it was not possible to establish a trend between the financing policies of the companies in the sample and the tax law. However, most recognize, on one hand, that the acceptance of interest as a tax expense favors company financing through debt capital, but, on the other hand, that CRSC incentivizes the capitalization of companies and their financing by own capital. We highlight that in the microenterprises the tax aspects do not have an influence, while in the medium-sized companies CRSC can stand out at the time of choosing financing. Therefore, the companies' position on their financing options may differ due to their size, as Jin (2021) highlights.

The sample not being representative of the population is the main limitation of the study, for which reason the results only respect the sample and cannot be extrapolated.

For future investigations, we suggest comparing the capital structure of companies with headquarters in

countries in which the dual benefit exists (acceptance of interest as an expense and the CRSC incentive), and focusing a study on CRSC to conclude whether its use is explained by the need for financing with a tax benefit or only to obtain a tax benefit.

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