

The Impact of Venture Capital on the Financial Structure of Belgian SMEs

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Received: April 10, 2015

Accepted: September 2, 2015

Online Published: September 17, 2015

doi:10.5430/bmr.v4n3p65

URL: <http://dx.doi.org/10.5430/bmr.v4n3p65>

Abstract

The objective of this research is to investigate the impact of the deduction for venture capital (deduction of the notional interests) on the structure of financing of Belgian SMEs. The tests of hypotheses conducted on a panel sample of 1,176 companies point out that firms rely more on self-financing since the introduction of the deduction for venture capital. Moreover the paper highlights that firms limit the use of long-term financial debts. Finally, the econometric model allows to clearly identify the negative impact of the deduction for venture capital on the global degree of debts.

Keywords: Venture capital, SME, Debt, Financing, Notional interests

1. Introduction

The law of June 22, 2005 created a tax deduction specifically related to equity financing in companies subject to corporate tax in Belgium. This law restores equity in tax treatment between the two main sources of funding that are equity financing and financing through third party funds. Debt is no longer the only way of funding that carries a tax benefit in Belgium. However, the first objective of the legislator wasn't really to fill the tax discrimination between these two sources of funding, but rather the need to replace the favorable tax treatment for coordination centers to maintain their activities in Belgium (Burggraeve, K., Jeanfils, Ph., Van Cauter, K. & Van Meensel, L., 2008). This tax system introduced, by the Royal Decree No. 187 of December 30, 1982, allowed among others things, a fixed determination of coordination centers' taxable profit, highly capitalized, or yet a total exemption of their property tax. In 2003, the European Commission described the coordination centers' Belgian tax system of "detrimental to competition" and imposed to Belgium the progressive term of it. The tax deduction for venture capital or deduction called "notional interests" is thus the parade of the Belgian government to not only maintain the activities of the coordination centers in Belgium but also to promote foreign investments.

Furthermore, since this deduction applies to all companies subject to corporate tax in Belgium, it could also have impacts on how they are funded. However, to our knowledge, no recent empirical studies have been conducted on Belgian SMEs to clearly identify if the notional interests' deduction had led, in their case, to a change in their funding behavior, and that, since their entry into effect.

Thus, the objective of this study is to identify the extent to which this deduction allowed a change in the funding structure of Belgian SMEs. To do so, we investigate the changes in their financial behavior following the introduction of this Allowance for Equity Capital (ACE) by comparing their funding and dividend policies. To our knowledge, very few studies have examined the channels through which the Belgian ACE system affects the debt level within Belgian SMEs. Moreover, these investigations are found to be relatively recent (Van Campenhout and Ven Caneghem, 2012; Kestens et al., 2012).

The rest of this paper is organized as followed: we first present the calculation of the amount of the deduction of notional interests and the literature review about the influence of ACE on firms financing choice (Section 2). The methodology used and the results are presented in the section 3. Finally, the last section identifies the main conclusions, limitations and future directions for research.

2. The Principle of Notional Interests Deduction and their Expected Effects on the Financing Structure of Belgian SMEs

The amount of the notional interests' deduction of a tax year is calculated based on the adjusted equity established at the end of the previous fiscal year. The article 205ter of the Taxes on income 92 allows the identification of these adjusted equity that are supposed to represent venture capital of the company. This one is determined by the equity of the company at the end of the previous tax period, established in accordance with the legislation on accounting and financial statements as reported in the balance sheet. However, the article 205ter also states that a certain number of corrections have to be brought to the definition of the basis for calculating the notional interests' deduction. Collon (2006) categorizes these corrections according to their distinct objective. The first objective is to avoid duplication of tax benefits while the second is to prevent artificial inflation of the base for calculating the notional interests' deduction. The following amounts are deducted from equity:

- net tax value of their stocks and own shares;
- net tax value of stocks and shares which have the nature of financial assets;
- net tax value of the shares of investment companies whose dividends are taken into account for the deduction of DTI (definitively taxed incomes);
- net assets of foreign institutions and/or properties situated abroad (only for institutions and buildings in a country with which Belgium has concluded a tax treaty);
- the net book value of tangible assets, in as much as that the related costs unreasonably exceed the professional's needs;
- the book value of assets held as an investment security and which don't produce regular income;
- the book value of buildings which directors or managers, their spouses or their children use;
- Gains from revaluation and capital subsidies.

It is then applied to those corrected equities, a fictitious percentage calculated each fiscal year, based on the average interest rate of linear bonds issued by the Belgian State to 10 years, effective the year before. The average interest rate is uprated by 0.5% for small companies. Thus, are considered small companies, companies that satisfy the conditions of the article 15 of the Company Code, *i.e.* those that do not exceed more than one of the following criteria:

- number of employees, on annual average: 50;
- annual turnover of 7 300 000 euros;
- total balance sheet of 3 650 000 euros.

Other companies, *i.e.* those that exceed more than one of these criteria or that have a number of employees, on annual average, higher than 100 are automatically considered, in Belgium, as large companies.

The deduction rate for venture capital can't exceed 6.5% and can't vary more than 1% between two consecutive fiscal years. The consideration of this deduction for venture capital tends to call into question the conclusions of the theory of optimal balance in its first version (trade-off theory or TOT). This theory advocates the existence of a global degree of optimal debt from a compromise's optimization between the tax benefits related to the debt (tax deductibility of debts) and disadvantages related to the costs of financial distress that it generates (Stiglitz, 1969). Indeed, the financial theory is essentially based on the existence of historic tax discrimination between third party funds and equity of companies.

Many researchers investigate the influence of tax discrimination on the financing choices of companies. However, their results are mitigated (Bradley et al.1984, Long & Malitz, 1985, Titman & Wessels, 1988, MacKie-Mason, 1990, Graham, 2000, ...). Several studies have shown, however, that the tax advantage of debt favors the choice of debt within companies (MacKie-Mason, 1990, Graham, 2000, Gordon & Lee, 2001,...). But the tax advantage of debt is limited by the existence of non debt tax shields such as depreciation or reductions of value (De Angelo and Masulis, 1980). These other tax deductions are therefore reducing the attractiveness of the debt, and this, even in profitable companies. The deduction for venture capital can be seen as a source of tax deduction not related to the debt but that, in addition, is related to concurrent financing of the debt. The existence of this benefit reinforces thus the conclusions of De Angelo and Masulis (1980). Furthermore, the tax deduction related to venture capital reduces the cost of equity of the company and promotes its plans of investment by reducing, all things being equal, the weighted average cost of its capital (Colmant & Hübner 2005). Moreover, the reduction of the equity's cost will be even more important

that the company is strongly capitalized. Consequently, the deduction for venture capital should promote at least a greater retention of earnings in profitable companies. A study led by the Centre of knowledge of SMEs' financing in 2008 (2008 CeFIP b) with Belgian accountants and chartered accountants, highlighted the recommendations of the latter to their client companies. Eighty percent of chartered accountants interrogated recommended to their clients to increase the share of their equity on their balance sheets or by a greater profit booking or by capital inflow. We can note that the recommendation to book a greater share of profit represents the majority opinion of these experts.

In the theoretical literature, the influence of an equity tax shield on the corporate financing of companies has been widely explored. Boadway & Bruce (1984) explain the need to introduce an allowance for capital equity (ACE) in the tax systems. The report of the IFS Capital Taxes Group (1991) recommends also the creation of ACE to achieve tax neutrality between debt and equity. According to this report, the financing choice within companies couldn't depend on taxes. Devereux and Frieeman (1991) developed theoretical in details how should be integrated the ACE in the tax systems of countries. Currently, few countries have incorporated this tax incentive in their taxation system. These countries are Croatia in 1994, Brazil in 1996, Italy in 1997, Austria in 2000 and Belgium in 2006. But only Belgium and Croatia have "full" ACE as described in the literature (Klemm, 2007) whereas Brazil, Italy and Austria have "partial" ACE.

However, Croatia, Italy and Austria abandoned the ACE respectively in 2000, 2003 and 2004. Since 2011, Italy has incorporated a full ACE in its taxation system. A few theoretical researches analyse the influence of « full » ACE on the corporate financing decision. All these researches conclude that the introduction of full ACE in the taxation system decreases the leverage of firms (Manfred and Wiswesser, 1998) for Croatia, Gérard (2006a & 2006b) for Belgium.

Very few empirical studies related to the ACE and its influence on financing choices for Belgian firms have been conducted to identify how the ACE has modified the financing behavior of these companies. The results obtained by Van Vampenhaout and Van Caneghem (2013) show an absence of influence of notional interest on the financing choice of 614 Belgian SMEs. To our knowledge, this paper is the only one that obtain this kind of results. The other researches conclude that the introduction of the Belgian ACE in 2006 decreases the debt equity ratio within Belgian firms (Kestens et al., 2012; Princen, 2012; Panier et al., 2012).

But none of these studies investigate the channels through which the debt equity ratio is modified within Belgian firms and especially Belgian SMEs. Croquet (2008) explores the channels through with the Belgian ACE system affects the debt level within large Belgian unlisted firms.

Hypothesis 1: Belgian SMEs have strengthened their equity following the introduction of the deduction for venture capital.

3. Methodology and Results

3.1 Description of the sample

This study is intended to unlisted Belgian SMEs (representing the majority of Belgian SMEs) that established their accounts in full format (Note 1) and that presents an average size of their employees that is between 50 and 100 workers. Thus, we restricted the European definition of the average company in order to be able to respect the article 15 of the Belgian Company Code. Furthermore, to integrate the sample, these companies must have a 10 years' history of accounts from 2002 to 2011 (2011 is the last year of the availability of accounts used in the database, *i.e.* the Belfirst 2012's version, edited annually by the Bureau Van Dijk in partnership with the National Bank of Belgium). Our final sample contains 1,176 medium-sized companies.

3.2 The Econometric Specification

The methodology used in this research includes two additional steps in the approach. First, any changes in the way the Belgian SMEs are financing themselves are examined in an exploratory manner over a period of ten years from 2002 to 2011, that's three years before the measure of the notional and six years later. The second stage of the research's approach is to confirm the impact of the notional interests' deduction on the structure's funding of Belgian SMEs, using an econometric study based on panel data conducted between 2006 and 2011. More precisely, we estimate the following equation:

$$ODL_{j,t} = \beta_0 + \beta_1 Tang_{j,t} + \beta_2 ROA_{j,t} + \beta_3 GrowOp_{j,t} + \beta_4 Size_{j,t} + \beta_5 NotInt_{j,t} + \gamma_t + \mathcal{E}_{j,t} \quad (1)$$

Where:

$ODL_{j,t}$ represents the overall debt level of the firm j at year t ;

$Tang_{j,t}$ represents the tangibility of the firm j at year t ;

$ROA_{i,j}$ represents the economic profitability of the firm j at year t ;

$GrowOp_{i,j}$ represents the growth opportunities of the firm j at year t ;

$Size_{j,t}$ represents the size of the firm j at year t ;

$NotInt_{i,j}$ represents the amount of deduction of venture capital of the firm j at year t ;

γ_t is a set of five year dummies ;

$\vartheta_{j,t}$ represents the error term.

3.2.1 Results

The test used to notice these potential changes in the funding's structure of Belgian SMEs, is the t-test which allows the comparison of means between paired samples. Indeed, only one sample is studied systematically in two distinct periods:

- before the introduction of notional interests, *i.e.* from 2002 to 2004 (period 1) and
- after their introduction, *i.e.* from 2006 to 2008 (period 2) and 2009-2011 (period 3). These two periods are considered here in order to test the immediate impact of the deduction for venture capital and the postponed impact of this measure.

The test was, at first, conducted on variables relating to how companies are financed for the entire sample. In order to do this, the variables related to the funding structure of companies and how these companies affect their results have been identified. Then, means were calculated based on the three considered periods. The variables concerning the tests of hypotheses are presented in table 1a and 1b.

Table 1a. Presentation of variables

Variables related to the financial structure	
Capital	Subscribed capital / Total liabilities
Available reserves	Available reserves / Total liabilities
Retained earnings	Retained earnings / Total liabilities
LT debts	LT debts / Total liabilities
ST debts	ST debts / Total liabilities
ODL	Overall debt level

Table 1b. Presentation of variables

Variables related to profit and its allocation	
Tax rate	Effective tax rate= (Tax / Profit before tax)
Dividend	Return on capital / Profit after tax
Distributable profit	Distributable profit / Profit after tax
Allocation to equity	Profit to allocate to equity / Profit after tax

Two hypotheses tests are systematically considered for each variable used. We therefore test, by using the Stata software, whether the average difference between the variable calculated in period 1 and this same variable calculated in period 2 or 3 is null.

The table 2 presents the most statistically significant results at the maximum threshold of 10% of those hypotheses.

Table 2. Results of the tests hypotheses

Tests on complete sample	Variables	Mean (standard deviation)	T-test (P(T > t))
Capital (1)	Capital (1)	0.1674119 (0.3367199)	t = 4.8415 (0.0000)
–	Capital (2)	0.1382874 (0.2296632)	
Capital (2)	Capital (1)	0.1674119 (0.3367199)	t = 2.4534 (0.0071)
–	Capital (3)	0.1428305 (0.2429188)	
Capital (3)	Capital (1)	0.1674119 (0.3367199)	t = 4.0489 (0.0000)
–	Capital (2)	0.1018979 (0.1538868)	
LT debts (1)	LT debts (1)	0.1197547 (0.1955693)	t = 3.8621 (0.0001)
–	LT debts (2)	0.0982465 (0.1537077)	
LT debts (2)	LT debts (1)	0.1197547 (0.1955693)	t = 3.1788 (0.0008)
–	LT debts (3)	0.0982465 (0.1537077)	
LT debts (3)	LT debts (1)	0.1197547 (0.1955693)	t = 4.67360 (0.0000)
–	LT debts (3)	0.0982465 (0.1537077)	
Tax rate (1)	Tax rate (1)	0.2560133 (0.9360725)	t = -3.4254 (0.0003)
–	Tax rate (3)	0.1316586 (1.21526)	
Tax rate (3)	Tax rate (1)	0.2560133 (0.9360725)	t = 3.1788 (0.0008)
–	Tax rate (3)	0.1316586 (1.21526)	
ODL (1)	ODL (1)	4.015175 (5.97933)	t = 4.67360 (0.0000)
–	ODL (2)	3.519828 (5.417577)	
ODL (2)	ODL (1)	4.112176 (6.337975)	t = -3.4254 (0.0003)
–	ODL (3)	3.182726 (5.074321)	
ODL (3)	ODL (1)	4.112176 (6.337975)	t = -3.4254 (0.0003)
–	ODL (3)	3.182726 (5.074321)	
Available reserves (1)	Available reserves (1)	0.1044737 (0.1650678)	t = -3.4254 (0.0003)
–	Available reserves (2)	0.113143 (0.1761122)	
Available reserves (2)	Available reserves (1)	0.1044737 (0.1650678)	t = -3.4254 (0.0003)
–	Available reserves (2)	0.113143 (0.1761122)	

		0.1044737	
Available reserves (1)	Available reserves (1)	(0.1650678)	t = -4.9495
–		0.122272	(0.0000)
Available reserves (3)	Available reserves (3)	(0.1887272)	
		0.2437495	
Allocation to equity (1)	Allocation to equity (1)	(0.8280176)	t = -1.5765
–		0.3970115	(0.0576)
Allocation to equity (2)	Allocation to equity (2)	(3.228612)	
		0.2437495	
Allocation to equity (1)	Allocation to equity (1)	(0.8280176)	t = -1.2548
–		0.8209578	(0.1049)
Allocation to equity (3)	Allocation to equity (3)	(15.6684)	

According to all these results, we note that the solvency of medium-sized companies of the sample has improved after the effective introduction of the deduction for venture capital. Indeed, we notice that the average overall level of debt is less important for the periods 2 and 3, and this, in comparison with period 1. The improvement of these companies' solvency can be explained by a relative decrease of the long-term financing but also by a relative increase in equity funding. The average share of long-term debts has actually decreased between periods 1 and 2 or 3, which tends to show that medium-sized companies have had less resort to such financing after the effective implementation of the deduction for venture capital.

Furthermore, the relative decrease in the share of subscribed capital in total liabilities without the absolute level of this subscribed capital, has been modified (Note 2), coupled with a relative increase in available reserves tends to show that these companies have privileged more self-financing. This statement is reinforced by the fact that medium-sized companies have affected a larger share of their profit to equity after the introduction of the law of June 22, 2005 establishing the tax deduction for venture capital.

This deduction, specific to the Belgian tax's system, has allowed many medium-sized companies to evolve their funding structure towards a stronger equity's structure. Moreover, when the effective tax rate is analyzed, it's clear that it has significantly decreased between period 1 and period 3. However, the results of the test performed on the effective tax rate between the period 1 and 2 is found to be statistically non-significant at 10%. The purely fiscal effect of the measure called "notional interests" has, thus, been delayed in time. The main reason for this time delay between the tax measure and its impact on the effective tax rate of medium-sized companies is the need for them to achieve positive results. Companies in loss obviously can't affect profits for their equity. Furthermore, the importance of the tax effect of the measure increases as the calculation basis on which this measure focuses also increases. So, it seems logical, even for a profitable company, to see the tax effect more and more important as we move away from the date of the entry into force of the deduction for venture capital.

We have subsequently performed the same tests on a restrained sample of 446 companies. These companies have the particularity of being in profit throughout the whole investigated period. The results discussed above follow the same path.

3.2.2 Study on panel data and results

The study of the impact of the deduction for venture capital on the funding structure of Belgian medium-sized companies based on panel data requires consideration of the "classic" control variables and a proxy for the amount of the deduction for venture capital. "Classical control" variables from Rajan and Zingales (1995) are those retained by the literature as the main determinants of the structure of corporate funding structure, namely size, tangibility of assets, profitability and growth opportunities (Shuetrim G., Lowe P. & Morling S., 1993; Biais B., Hillion P. & Malecot J.F., 1995; De Jong & Van Dijk, 1998; Suret & Carpentier, 1999; Stöss & Kremp, 2001; Gaud & Jani, 2002; Adedeji, 2002; Drobetz & Fix, 2003; Chen, 2004; Colot, Bughin, Croquet & Pozniak, 2010). Table 3 summarizes the main definitions of the variables used in the empirical literature.

Table 3. Definition of control variables retained in the literature

Determinants	Definitions	Former studies
	Total assets	Dubois (1985)
	Logarithm of sales	Rajan & Zingales (1995); De Jong & Van Dijk (1998); Baker & Wurgler (2002); Alti (2005);
Size	Average workforce	Paranque & Cieply (1997); B édu é(1997) ; Ziane (2004)
	Turnover	Kremp & Stöss (1999) ; Achy & Rigar (2005) ;
	Total sales	Adedeji (2002)
	ROA (EBITDA/Total assets)	Rajan & Zingales (1995) ; Carpentier & Suret (1999) ; Booth et al. (2001) ; Gaud & Jani (2002); Colot et al ; (2010).
Profitability	ROE	B édu é(1997)
	Net profit/ total assets	B édu é & L évy (1997) ; Kremp & Stöss (1999)
	EBIT/ total of fixed assets	Bourdieu & S édillot (1993)
Growth opportunities	Market-to-book ratio	Rajan & Zingales, 1995 ; Wiwattanakantang, 1999 ; Bevan & Danbolt, 2002 ; Gaud & Jani, 2002
	Relative variation in turnovers between two successive periods	Kremp et al. (1999) ; Colot et al. (2010)
Tangibility of assets	Tangible assets/total assets	Bourdieu & S édillot (1993) ; Shuetrim et al ; (1993) ; Rajan & Zingales (1995) ; Bevan & Danbolt (2002) ; Achy & Rigar (2005) ; Huang & Song (2006) ; Zou & Xiao (2006) ; Colot et al. (2010).

Inspired by Colot et al. (2010)

Considering the framework of this research, we chose as dependent variable the overall level of debt. This measure, allowing to estimate the share that represents the borrowed funds in comparison with companies' equity, is particularly accurate when assessing the impact of the deduction for venture capital on funding's structure of companies on the sample.

The size of SMEs is approached by the average number of workers. Indeed, the proxy size is relatively stable regarding the sample's companies on the whole period, which isn't necessarily the case with criteria such as total sales or yet, the turnover that are much more subject to cyclical hazards that have marked out this period because it includes the years that saw the birth of the financial crisis of 2008 and the economic crisis that ensued.

Profitability is, as for it, approached on an economically plan thanks to the ROA measured by the ratio between the income of the year and total assets.

Since SMEs studied within the framework of this research are unlisted SMEs, it's very difficult to compute their market-to-book ratio. Consequently, the growth opportunities are measured by the relative variation of turnover between two consecutive periods.

Finally, following the example of the majority of studies reviewed, tangibility is measured by the ratio between tangible assets and total assets.

The variable which is used as a proxy for the amount of the tax deduction for venture capital is computed by applying the deduction rate for the results obtained between 2006 and 2011 (*i.e.*, for the tax years from 2007 to 2012) to the amount of corrected equity determined the previous year. However, it's impossible to identify the corrected equity as the law of June 22, 2005 has defined them without having the tax returns related to the tax years involved. Therefore, we approach the amount of corrected equity by a proxy based essentially on accounting data of SMEs, and that, following the example of Croquet (2008). These corrected equities but simplified, are computed as follow:

Corrected equity = Equity - gains from revaluation - capital subsidies - financial assets - treasury stocks

Table 4 appoints and defines variables that are included in the panel.

Table 4. Description of selected variables

Name of the variable	Name of the variable in the results (French)	Definition	
ODL	Dge	Overall debt level	Debts / equity
Notionalint	Intnotionnel	Amount of deduction of venture capital	Ln (deduction rate x corrected equity)
Roa	Roa	Economic profitability	Profit of the year / total assets
Size	Taille	Average staff	Ln average staff
Growth op.	Opcroissance	Growth opportunities	$(CA_t - CA_{(t-1)}) / CA_{(t-1)}$
Tangibility	Tangibilit é	Tangible assets/ Total assets	

The estimations on panel data are based on a balanced panel of 1,102 companies whose characteristics are analyzed on a period from 2006 to 2011, *i.e.*, the years for which the deduction for venture capital applies. Indeed, some data were missing for 74 companies in our initial sample (1176).

Initially, the LM test of Breusch-Pagan allows to reject the null hypotheses of the model's estimation by ordinary least squares (at a statistical significance threshold of 10%). The estimation is made on the basis of the generalized least squares. Moreover, the Hausman's test allow, at a significance threshold of 10%, to reject the null hypothesis

that the individual effects should be tested by using a random effects' model. Thus, this is a fixed effects' model, which is used in this study.

Table 5 shows the results of the estimation of the overall level of debt by using the generalized least squares.

The global pattern appears to be statistically significant at a 1% threshold. All the explanatory variables, except the tangibility of assets (as "tangibilité"), are also statistically significant at a 1% threshold. The result for the variable "notionalint" (notional interests as "intnotionnel") shows a negative influence on the overall debt level, which validates the research hypotheses. Thus, the greater the deduction for venture capital is, the greater its impact on the overall debt level will be. Moreover, it appears that the ROA negatively influences the overall debt level. Profitable companies seem to be financed more easily by equity since the introduction of the deduction for venture capital. We have previously shown that the increase in equity mainly came from the results generated by the company (cash flow – self-financing) and not by the issuance of additional equity, which also confirms the negative sign of the "growthop" variable (opportunities growth as "Opcroissance").

Table 5. Results of the estimation

Name of the variable	Coef.	Std. error
Tangibility	0.018	0.910
ROA	-0.112***	0.008
Growth op.	-0.223***	0.057
Size	2.006***	0.434
Notionalint	-1.755***	0.116
Cons	4.117**	1.799
	Within	0.0739
R-Sq	Between	0.1903
	Overall	0.1306
Sign. Model		0.000
Nb. Obs		5948
Nb. Groups		1102

(***, **, *): Significant at 1%, 5% and 10%, respectively.

The results seem to question the conclusions of the theory of optimal balance in its first version, suggesting that profitable companies have an interest in borrowing in order to fully enjoy the principle of the tax deductibility of the debt. Indeed, the Belgian companies have a tax incentive directly related to the source of financing concurrent with debt, namely equity funding.

4. Conclusion

This research focuses on the tax deduction for venture capital and their effect on the funding's structure of unlisted medium-sized Belgian companies. Since the law of June 22, 2005, companies subject to corporate tax in Belgium have the possibility to fiscally deduct a part of the cost of their equity. This law cancels from then on the historic tax discrimination that existed between equity funding and funding through third party funds. However, the existence of this tax discrimination was originally one of the foundations of the theory of optimal balance in its first version, namely that profitable companies had a vested interest in borrowing as much as possible in order to fully benefit from the principle of the tax deductibility of debts. Although the main objective of the legislator is to keep the activities of the coordination centers in Belgium, the deduction for venture capital has nevertheless as peripheral objective to improve the solvency of companies.

At the moment, there is to our knowledge no study that has actually investigated with sufficient temporal retrospect into the consequences of this tax deduction for venture capital on the funding structure of Belgian SMEs. The

originality of this paper thus lies in the fact that it analyses the evolution of the way Belgian medium-sized companies are financed following the introduction of this tax deduction, and this, based on a double methodological approach. The main results show an evolution in their funding structure. Indeed, companies are more funded with self-financing since the introduction of the deduction for venture capital and have limited their use of long-term borrowings. The two effects combined lead to a significant decrease in their overall level of debt. Moreover, econometrics based on panel data allowed to clearly identify the negative impact of the deduction for venture capital on the overall level of debt. Thus, this allows us to conclude on the efficiency of the measure called "notional interests" on the solvency of Belgian medium-sized companies. Furthermore, this research also shows the purely fiscal effect of this measure since the effective tax rate of these companies appears to have significantly decreased only three years after the introduction of the deduction.

This first study that is rather likely to be exploratory deserves to be extended and improved. For example, we could try, in a much deeper way, to integrate this innovative incentive Belgian tax in the theory of optimal balance in order to identify to what extent it modifies the determination of the optimal debt ratio prescribed in the first version of this theory. Moreover, a substantial improvement track can intervene in the calculation of the amount of the tax deduction of notional interests since it was calculated on a simplified basis only including accounting corrections. Consequently, the amount overstates somewhat the actual amount of the deduction.

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Notes

Note 1. Some SMES can publish their annual accounts using a summarized form. This scheme reduces quite considerably financial information of the annual accounts. Thus, in this scheme, companies are not required to include their turnover.

Note 2. A hypothesis test of mean comparison on paired sample was performed on the average of the subscribed capital of the period 1 in comparison with the average of the subscribed capital of the periods 2 and 3. Results are not statistically significant at 10% so, the null hypothesis can't be rejected.