The flip side of the coin: how entrepreneurship-oriented insolvency laws can complicate finding debt financing for (high) growth entrepreneurs

Abstract

In this study, we examined the impact of the change towards a more debtor-friendly insolvency law on the financial policy of Belgian growth firms. Using the recent change in Belgian insolvency law as an exogenous policy shock, we investigated the changes in access to debt for growth firms, taking into account the heterogeneity of debt. Overall, our findings indicated that growth firms experience more difficulties in obtaining credit from financial institutions, after the change towards a more debtor-friendly insolvency law.

1. Introduction

Entrepreneurial activity is generally assumed to be a crucial mechanism for economic development (Van Stel, Carree, & Thurik, 2005). At the macro level, entrepreneurship is seen as a driver of structural change, job creation and overall economic growth. At the micro level, it drives the creation and subsequent growth of new firms (Stam, Suddle, Hessels, & Van Stel, 2009). For this reason, policymakers seek to craft legislation that encourages entrepreneurship. Research has also shown that individuals' propensity to start new ventures is affected by such legislation or economic policy in general (Armour & Cumming, 2008). While there already exists a large empirical literature on the effect of taxes and interest rates on entrepreneurship, the impact of insolvency laws on entrepreneurship is rarely examined. Nevertheless, the few empirical findings in the literature support the existence of a link between an insolvency law and entrepreneurship (Armour & Cumming, 2008; Braunerhjelm & Eklund, 2014). A number of cross-country studies have found a positive association between a more debtor-friendly insolvency legislation and entrepreneurship, by studying the change in self-employment or

firm-formation rates (Armour & Cumming, 2008; Fan & White, 2003; Lee, Lee, Yamakawa, & Yamakawa, 2012; Lee, Yamakawa, Peng, & Barney, 2011). In addition, some single-country studies have shown that specific changes in bankruptcy laws may impact an individual's decision to start or restart (e.g. after a bankruptcy) a business or not (Dewaelheyns & Hulle, 2008).

Nevertheless, entrepreneurship is not only about the entrepreneur him/herself, but it is also about other stakeholders in the entrepreneurial eco-system. More specifically, in insolvency proceedings, the interests of the debtor on the one hand and the rights of the creditor on the other must be balanced (Estrin, Mickiewicz, & Rebmann, 2017). When we fail to take this balance into account, the overall success of the change in law is ambiguous, since the change towards a more debtor-friendly insolvency law generally means that the law is 'less friendly' towards creditors, making the issuance of debt towards entrepreneurs less likely or contracted under stricter terms. Therefore, a debtor-friendly insolvency law that takes (too) little account of creditors may lead to insufficient financial resources in the market. We argue that the foregoing could lead to a situation in which the insolvency law is an obstructing factor in the granting of credit by creditors. As a result, entrepreneurs may not always be able to obtain (sufficient) funding. In this study, we will therefore look at how the possibility to attract debt financing is affected by legislative initiatives that promote entrepreneurship.

In assessing the recent change in Belgian insolvency law, which became more debtor-friendly, this study thus focuses primarily on the effect that this change has had on the access to credit for Belgian companies. Especially (high) growth firms have a greater need for financial capital. This is therefore the first reason why we will look at growth companies in this study. Becchetti and Trovato (2002) namely show that finance shortage is an important restraint on growth of

firms. Therefore, in order to achieve their targeted growth rate, growth entrepreneurs are often reliant on additional financial resources (Manigart & Struyf, 1997). On the other hand, it is argued that, in order to promote economic growth, policy makers should focus on growth companies, instead of new firms in general (Shane, 2009). This is empirically confirmed by several studies that find a positive relationship between entrepreneurship and economic growth only for a subset of firms, i.e. those that are innovative and growth oriented (Henrekson & Sanandaji, 2014; Stam et al., 2009; Wong, Ho, & Autio, 2005). It is thus important to note that the term 'entrepreneurship' encompasses more than just the creation of new businesses. A key goal of entrepreneurship is the growth of existing businesses. Therefore, identifying and supporting growth firms are key priorities.

Moreover, these growth firms are characterized by their higher risk profiles (Wilson, 2011). For this reason, we argue in this study that creditors will mainly become stricter with respect to growth companies after the change towards a more debtor-friendly insolvency law. More specifically, the aim of this study will be to investigate to what extent an insolvency legislation can disrupt the possibility to attract debt financing, especially for (high) growth companies, resulting in potential unexpected and undesired outcomes. Important to note here is that we will not only look at whether growth companies will have more or less access to debt in general, after the change in the insolvency law. We will also take into account the heterogeneity of debt when assessing the access to debt for growth companies after the change towards a more debtor-friendly insolvency law.

In order to answer our research question, we use a single-country analysis. As a result, we can observe behavioral changes resulting from a change in insolvency legislation, which is in contrast to a cross-country analysis, where only differences in behavior across countries can be

observed. However, such differences in (entrepreneurial) behavior across countries may be explained not only by differences in (insolvency) regulations, but also by cultural, political and economic differences and interactions between different relevant fields of law which may co-determine the legal structure of a firm and its legal relations with creditors. In this study, we will therefore examine the effect of the implementation of a more debtor-friendly insolvency law within the same context, namely Belgium. On May 1, 2018, the Belgian legislator implemented a thorough overhaul of the insolvency law: a Book XX was added to the Code of Economic Law, which contains a revised codification of both the Bankruptcy Act of August 8, 1997 and the Act on the Continuity of Enterprises of January 15, 2009. With this implementation, the legislator intended to further liberalise the system of debt remission, and to ensure that all new income, obtained after bankruptcy, goes directly to the bankrupt entrepreneur (Reynaert, 2020; Vandenbogaerde, 2020). The ultimate goal of this new law is to stimulate entrepreneurship in Belgium (Geens, 2017).

The paper starts with a discussion of the theoretical background and development of the hypotheses. Next, we discuss the data set, where we describe in detail how (high) growth is measured, how the dependent variables to determine the degree of debt financing are defined and how independent constructs are measured. Thereafter, we present our research findings, followed by conclusions and avenues for further research.

2. Theoretical background and development of hypotheses

2.1. Growth firms and debt financing

Financial capital is one of the key resources a business requires to support its growth. Of course, access to finance does not directly cause growth, but credit constraints may affect growth by suppressing it. In this regard, Becchetti and Trovato (2002) show that finance shortage is indeed an important restraint on growth of firms. Therefore, in order to achieve their targeted growth rate, high growth entrepreneurs are often reliant on additional financial resources (Manigart & Struyf, 1997).

Firms can choose from a diverse range of financing choices, covering internally generated funds, bank financing and new equity. Vanacker and Manigart (2010) explain the financing choices of growth companies, using the pecking order theory. The pecking order theory predicts the existence of a financing hierarchy, where business managers avoid the cost of external financing if possible. As a result, they will first prefer to use internal funds and only use debt if these internal funds prove insufficient (Myers & Majluf, 1984). However, internal resources are likely to be limited, especially in growth firms which consume large amounts of cash, and without additional funds, this limitation may constrain the growth of the firm (Beck & Demirguc-Kunt, 2006). Rahaman (2011) shows that as the amount of internal resources decrease, firms switch towards debt financing as a means to finance growth. Since the funds (high) growth firms generate internally will thus be insufficient to finance (high) growth, growth entrepreneurs are often reliant on debt. This brings us to our first hypothesis:

Hypothesis 1a (H1a): There is a positive association between being a (high) growth firm and the proportion of debt financing.

In addition, the fact that a company wants to grow will not only result in the need for debt financing, but will also have an impact on the type of debt the firm attracts. Of all external debt resources, banks are consistently identified as the primary provider of external funds for firms (Robb & Robinson, 2014; Rostamkalaei & Freel, 2016). Robb and Robinson (2014) give the availability of bank debt as a possible explanation for this. Moreover, it is assumed that bank debt is a suitable source of financing, especially for innovative entrepreneurial companies (Carpenter & Petersen, 2002). One possible reason for this is that bank debt is considered to be the cheapest source of outside financing, as they only require an interest on their loan and do not expect to share in the value creation, as equity investors do (Vanacker & Manigart, 2010). This logically puts bank financing at the forefront (Robb & Robinson, 2014; Vanacker & Manigart, 2010). We therefore expect that the financing of these (growth) investments subsequently results in an increase in the proportion of bank debt in the total financing picture (i.e. total liabilities).

In addition, funding from financial institutions may not be sufficient for growth companies to finance their investments Therefore, trade credit is also widely recognized to be an important source of funding for firms (Petersen & Rajan, 1997). In fact, the study of Robb and Robinson (2014) shows that the average firm relies heavily on trade credit. We expect that this will lead to an increase in the proportion of credit from suppliers to total liabilities, especially for growth firms, which brings us to the next hypotheses:

Hypothesis 1b (H1b): There is a positive association between being a (high) growth firm and the proportion of debt granted by financial institutions.

Hypothesis 1c (H1c): There is a positive association between being a (high) growth firm and the proportion of supplier credit.

2.2. Change towards a more debtor-friendly insolvency law

The change towards a more debtor-friendly insolvency law generally means that the law is 'less friendly' towards creditors, making the issuance of debt towards entrepreneurs less likely or contracted under stricter terms. Therefore, a debtor-friendly insolvency law that takes (too) little account of creditors can lead to insufficient financial resources in the market. This argumentation is supported by the results of Lee and Yamakawa (2012) and Fossen et al. (2014), which examined the impact of a 'fresh start' policy, on both debtors (by looking at the effect of wealth on entrepreneurial activity, after the reform) and creditors (by looking at the effect of the reform on interest rates). On the one hand, it was found that the law made entrepreneurship more attractive, as entrepreneurs do not risk losing as much wealth and future income in the case of bankruptcy. On the other hand, financial institutions were found to become more risk-averse towards entrepreneurs, since higher interest rates were charged. They do this because the entrepreneurial risk is shifted to the creditors, who, in the event of the debtor's bankruptcy, become less likely to collect their debt (Berkowitz & White, 2002; Fossen, 2014; Hirose, 2009; Lee et al., 2012).

This increased risk aversion by creditors due to a change in insolvency legislation might have a serious consequence for growth companies. Particularly growth firms need sufficient external debt financing in order to be able to grow. However, we argue that a change towards a more debtor-friendly insolvency law might make it much more difficult for these growth firms to obtain debt financing from creditors. This may be due to the fact that creditors generally perceive more risk, and therefore will be more cautious in granting debt to in particular entrepreneurs they label as 'riskier', and in other words have a higher risk of firm failure. Therefore, we argue that the change towards a more debtor-friendly insolvency law would lead creditors to become even more risk-averse towards growth firms, which will mean that after the change in the law, it will be more difficult for these firms to obtain debt financing. This brings us to the following hypothesis:

Hypothesis 2a (H2a): The change towards a more debtor-friendly insolvency law weakens the positive association between being a (high) growth firm and debt financing.

Furthermore, not every creditor is going to be equally inclined to grant funds to a (high) growth firm, especially not after the change towards a more debtor-friendly insolvency law. As already mentioned, the studies of Lee and Yamakawa (2012) and Fossen et al. (2014) showed that the implementation of a more forgiving personal bankruptcy law resulted in financial institutions charging higher interest rates when providing debt finance to entrepreneurs, in order to reduce adverse selection and moral hazard problems. Moreover, agency problems in the form of information asymmetry, moral hazard and adverse selection are likely to arise in contractual arrangements between growth firms and financial institutions (Frank & Goyal, 2003). In the particular case of growing businesses, there is the potential for information gathering and processing on the part of the financial institution to be more difficult, because of the pace of

change within the business (Binks & Ennew, 1996). In addition, information imperfections may also arise at the side of financial institutions as they are unable to assess the viability and growth potential of (new) firms and as a result, overestimate the risk of lending to entrepreneurs of (potential) (high) growth firms (Stam et al., 2009). As a consequence, financial institutions typically require collateral and may include restrictive debt covenants in the debt contract to reduce adverse selection and moral hazard problems. The adverse selection effect is, in the case of growth firms, analogous to that observed in insurance markets and arises because firms have different degrees of risk attached to their businesses. Lenders are not easily able to separate potentially successful businesses from less successful ones and therefore may provide less funding than the company needs and require for example a higher interest rate, more collateral or may include restrictive debt covenants in the debt contract to reduce adverse selection and moral hazard problems (Berger & Udell, 1998).

However, as leverage increases, the probability of financial distress and moral hazard problems increase, and hence the marginal cost of debt financing may increase rapidly (Carpenter & Petersen, 2002). At a certain point, it even becomes impossible for a bank to hedge their risks by asking for a higher interest rate or more collateral, and/or the requirements to be met before debt financing is granted by a bank are so high, that it is no longer interesting for a growth firm to have recourse to debt financing (Manigart & Struyf, 1997). In addition, financial institutions only have a limited return on their investment (i.e., interest margin) and as a result are expected to focus primarily on low-risk projects in businesses with sufficient cash flow to fulfill the fixed debt related payments (Carey, Post, & Sharpe, 1998). Since growth-oriented firms are mainly characterized by their higher risk profiles, it is especially difficult for them to gain access to credit from financial institutions (Wilson, 2011). Other creditors like for example trade creditors

may have information (or may forge relationships through supply channels) that banks may not be able to obtain (Petersen & Rajan, 1997), which may eventually result in an imbalance between financial institutions and trade creditors in the provision of external financing.

In summary, financial institutions generally require more assurance regarding the repayability of their funds, have the power to be more selective and focus primarily on low-risk projects. Taking into account the new Belgian insolvency law, we expect financial institutions to be more reluctant in providing debt financing to growth firms, after the change towards a more debtor-friendly insolvency law, which brings us to the following hypothesis:

Hypothesis 2b (H2b): The change towards a more debtor-friendly insolvency law weakens the positive association between being a (high) growth firm and the proportion of debt granted by financial institutions.

Trade credit is widely recognized to be an important source of funding for informationally opaque firms (Petersen & Rajan, 1997). Uchida et al. (2013) suggest that trade creditors can enjoy a special advantage which is attributed to a strong transactional relationship between trade creditors and debtors. They argue that trade creditors acquire private information about their customers, which reduces inefficiency stemming from asymmetric information and enables the creditors to provide liquidity to firms. Since agency problems in the form of information asymmetry, moral hazard and adverse selection are likely to arise in contractual arrangements between growth firms and creditors (Frank & Goyal, 2003), we expect suppliers to be less strict in granting credit to growth companies, than for example, financial institutions after the change towards a more debtor-friendly insolvency law. In addition, suppliers may also be less able to

make a complete risk assessment of a company than, for example, a financial institution. This brings us to the final hypothesis:

Hypothesis 2c (H2c): The change towards a more debtor-friendly insolvency law strengthens the positive association between being a (high) growth firm and the proportion of supplier credit.

The overall framework of our arguments is summarized in Fig. 1.

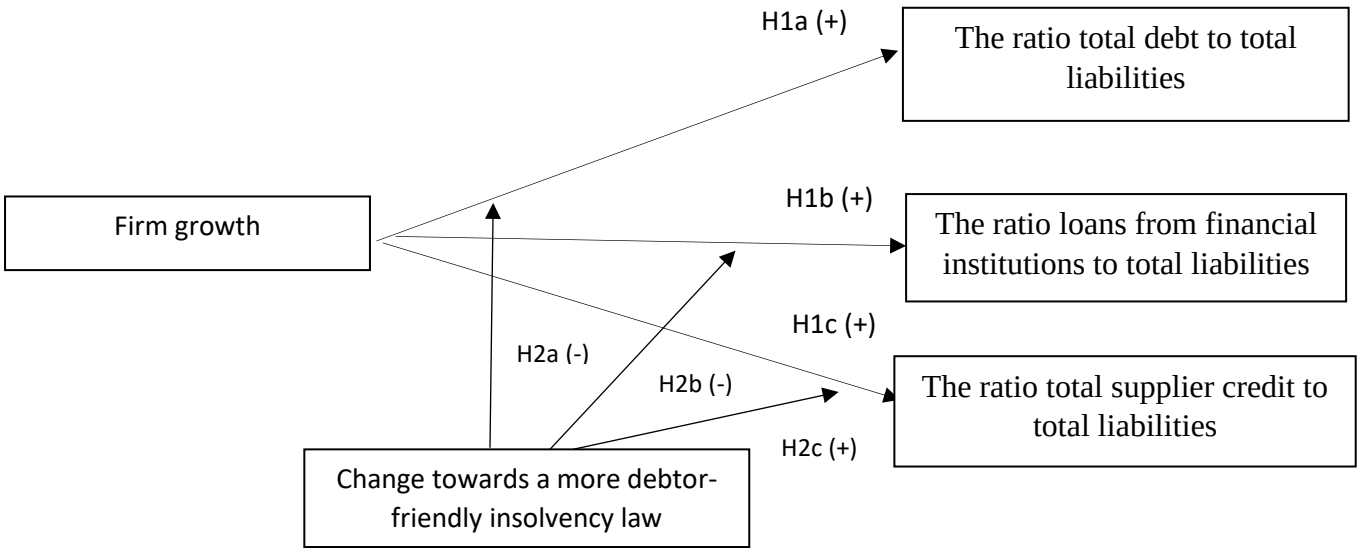

Fig. 1: Our conceptual framework: a moderation model

3. Data and methodology

3.1. Data

The empirical evidence of this paper is based on detailed yearly financial statement data of all Belgian companies, as provided in the Bel-first database (Bureau Van Dijk). All Belgian limited liability companies, irrespective of their size, have to file detailed financial statement information. We select, for the years 2017 and 2019, (1) all firms that are active private Belgian firms, (2) and that are not part of the financial services industry. As 2017 is the year before the implementation of the debtor-friendly insolvency law, and 2019 is the year after the implementation of the law, but before Covid-19, we only select the information of these years, in order to observe an actual change in (more risk-averse) behavior of creditors towards (growth) entrepreneurs due to the implementation of a more debtor-friendly insolvency law. This results in a dataset of 32 663 companies, active in both 2017 and 2019, which ultimately amounts to 65 326 cases.

3.2. Variables

Dependent variables: debt financing

The dependent variables representing the degree of debt financing are constructed following Hirose (2009). In order to test hypothesis 1a and 2a, we use the ratio total debt to total liabilities as a dependent variable (TDTL). In order to test hypothesis 1b and 2b, we use the ratio loans from financial institutions to total liabilities (FITL). Finally, to test hypothesis 1c and 2c, we use the ratio supplier credit to total liabilities as a dependent variable (SUP_CREDIT).

Independent variable: growth

The variable 'Firm growth' of a company in this study is a continuous variable calculated from the growth in the average number of employees over a three-year period. We focus on the employment growth, as this has also been used in previous studies as a measure to identify a (high) growth company (Bjuggren, Daunfeldt, & Johansson, 2013; OECD, 2010).

More specifically, to calculate the growth of a firm in 2019, we calculated the change in the average number of employees for that company over the period from 2016 to 2019. The growth of firms in 2017 was calculated over the period 2014-2017.

Moderating variable: legislation change

In order to test the moderating effect in hypotheses 2a and 2b, the change towards a more debtor-friendly insolvency law is a binary variable, which equals 0 when the data relates to 2017 (before the change towards a more debtor-friendly insolvency law) and equals 1 when the data relates to 2019 (after the change towards a more debtor-friendly insolvency law, before Covid-19).

Control variables

Industry

The study of Rajan and Zingales (1998) establishes that there are certain industries that have a greater need for external debt financing. This in turn has an influence on the need and demand for bank credit. We account for industry effects by adding dummy variables in our regression analysis. We included a total of 10 industries in our data set.

Age

Furthermore, we also include the age of each firm in our dataset. Younger firms automatically have fewer internal resources, so we can expect younger companies to have a higher need for external debt financing (Audretsch & Dohse, 2007; Chittenden, Hall, & Hutchinson, 1996).

Firm size

We also control for the size of the company. According to Audretsch and Dohse (2007) and Alipour et al. (2015) a firm's size has a positive impact on the level of debt. Large companies have generally more internal resources available, so they may be less likely to need to rely on external debt financing. The study of Almus (2000) further complements this by stating that smaller firms have limited access to internal resources, so again we expect these firms to have a higher need for external debt financing. To account for a skewed distribution, we used the natural logarithm of the variable 'Firm size'.

Liquidity

According to the *trade-off theory*, firms should ensure sufficient liquidity through receiving debt in order to meet their commitments. Furthermore, considering this theory, liquidity is important to obtain debt financing (Alipour, Mohammadi, & Derakhshan, 2015).

Profitability

In addition, we also control for profitability, because firms with greater profitability should have more leverage and debt ratios, since firms that have great profitability have less bankruptcy risk, and creditors have much tendency for funding these firms (Alipour et al., 2015; Chittenden et al., 1996).

Asset structure

Based on the study of Alipour et al. (2015) and Chittenden et al. (1996), a firm's tangibility has a predicted positive impact on the level of debt. A company with more tangible assets would need to have more collateral assets to service debt in the event of bankruptcy and, therefore, would have a greater ability to attract more debt.

In summary, Table 1 presents the definitions of the variables used.

Table 1.
Definition of the variables used.

Variables	Definition
Dependent variables	
TDTL	The ratio total debt to total liabilities
FITL	The ratio loans from financial institutions to total liabilities
SUP_CREDIT	The ratio credit from suppliers to total liabilities
Independent variables	
Firm growth	The growth in the average number of employees over a three-year period
Year	Moderating variable, which equals 0 when the data relates to 2017 and equals 1 when the data relates to 2019
Control variables	
Industry	The industry in which the firm operates (10 industries were included)
Age	2017 or 2019 minus year of establishment

Firm Size	SIZE: Natural logarithm of total assets
Liquidity	CR: Current assets divided by current debt
Profitability	ROA: EBIT divided by total assets
Asset Structure	ASST: Fixed assets divided by total assets
RD_Ratio	Research and development expenses divided by total assets
Depreciation_Ratio	Depreciation divided by total assets

3.3 Model specification

To test hypotheses 1a, 1b and 1c, we employed an OLS regression analysis, without a moderating variable. Afterwards, to test hypotheses 2a, 2b and 2c, we employed an OLS regression analysis, adding the moderating variable:

$$Y_{it} = \beta 0 + \beta 1\text{YEARi} + \beta 2\text{GROWTHi} + \beta 3\text{YEAR} * \text{GROWTHi} + \beta 4\text{AGEi} + \beta 5\text{LN(SIZE)i} + \beta 6\text{LIQUIDITYi} + \beta 7\text{PROFITABILITY} + \beta 8\text{ASSTi} + \beta 9\text{RD\_RATIOi} + \beta 10\text{DEPRECIATION\_RATIOi} + \varepsilon i$$

Since our main objective is to examine whether the borrowing behaviour of growth companies was affected by the change in the insolvency law, we perform a moderation analysis with 'YEAR * GROWTH' as a moderating variable in the regression model. Furthermore, in our model Y_{it} represents the ratio total debt to total assets, the ratio loans from financial institutions to total debt, the ratio loans from financial institutions to total assets and the ratio supplier credit to total debt.

4. Empirical results

Descriptive statistics

The descriptive statistics of our sample can be found in Table 2. An average company in our dataset in 2017 is 23,67 years old and has a size of 4380,65 in terms of total assets. Further, on average, liquidity and profitability are 526,68 and 0,0681 respectively. In 2019, an average company in our dataset is 22,32 years old, and has a size of 4223,73 in terms of total assets. Further, on average, liquidity and profitability are 390,94 and 0,0765 respectively.

Furthermore, the average ratio total debt to total liabilities is both in 2017 and 2019 0,61. The average ratio loans from financial institutions is 0,15 in 2017 and 0,14 in 2019. Finally, the average firm has a firm growth of 0,1612 in 2017 and 0,13 in 2019.

Table 2.
Descriptive statistics of the variables.

Variable		N	Mean	Std. Deviation	Minimum	Maximum
TDTL	2017	7 896	0,61	0,26	0,13	,99
	2019	8 179	0,61	0,26	0,13	,99
FITL	2017	7 896	0,15	0,19	0,00	,60
	2019	8 179	0,14	0,18	0,00	,60
SUP_CREDIT	2017	7 896	0,003	0,018	0,00	,10
	2019	8 179	0,021	0,076	0,00	,41
Firm growth	2017	7 896	0,1612	0,30668	-,36	1,00
	2019	8 179	0,13	0,39060	-,36	1,00
AGE	2017	7 896	23,67	11,946	7,00	117,00
	2019	8 179	22,32	12,123	5,00	117,00
SIZE[a]	2017	7 896	4380,65	50870,730	3,00	3 075 879
	2019	8 179	4223,73	41118,049	2,00	2 755 607
Liquidity	2017	7 896	526,68	1662,30	,33	7091
	2019	8 179	390,94	1614,87	,33	7091

Profitability	2017	7 896	,0681	,1837	-,69	,74
	2019	8 179	,0765	,1787	-,69	,74
ASST	2017	7 896	,4061	,3144	,0011	,99
	2019	8 179	,3888	,3151	0,0011	,99
RD_Ratio	2017	7 896	,0000	,0087	0,00	1,18
	2019	8 179	,0001	,00669	0,00	,91
Depreciation_Ratio	2017	7 896	,206	,6911	0,00	5,48
	2019	8 179	,1981	,6697	0	5,48

a. Natural logarithm used in regression model.

The correlation matrix, which is presented in Table 3, shows a strong significant positive correlation between GROWTH and the dependent variables TDTL, FITL and SUP_CREDIT, which is in line with hypothesis 1a and 1b. We also check for the presence of multicollinearity. The correlation matrix does not show significant correlations higher than 0.8, which indicates the absence of multicollinearity. Additionally, each variable's variance inflation factor (VIF) is lower than the recommended threshold of 10 (the highest VIF being 1.150) (Alin, 2010). Therefore, we can conclude that multicollinearity is not present in our study.

Table 3.
Pairwise correlations.

	1	2	3	4	5	6	7	8	9	10	11	12
TDTL	1	,416***	,088***	,006	,106***	-,212***	-,009	-,749***	,034***	-,019**	-,009	-,031***
FITL		1	,002	-,011	,074***	-,048***	,028***	-,280***	,007	,008	-,006	-,008
Sup_credit			1	,163***	,010	,047***	,059***	-,069***	-,012	-,085***	,028***	-,030***
Year				1	,011	-,056***	-,002	-,009	,023***	-,027***	-,005	-,006
Growth					1	-,169***	-,007	-,095***	,020**	,000	,019**	-,021***
Age						1	,055***	,157***	-,109***	-,018**	,017**	,081***
Size[a]							1	,006	-,004	-,009	,005	-,013
Liquidity								1	-,018***	,004	,013	,020**
Profitability									1	-,181***	-,004	-,014*
ASST										1	-,014*	-,005
RD_Ratio											1	,005
Dep_Ratio												1

*, **, *** correlation significant at the 0.1 level, 0.05 level, 0.01 level (2-tailed).
a. Natural logarithm used in regression model.

Regression results

Our regression results can be found in Table 4. Column 1 shows that there is a significant positive relationship between being a growth firm and debt financing (H1a). As expected, growth firms thus rely heavily on debt financing to achieve their growth.

Subsequently, we notice in column 2 that, as expected, growing companies have a higher reliance on external funding from financial institutions (H1b). We note that there is a significant positive relationship between a growth firm and the ratio loans from financial institutions to liabilities. Furthermore, we notice the same with supplier credit (H1c). As expected, growth companies thus have a higher reliance on credit from suppliers.

Hypothesis 2a examines if the change towards a more debtor-friendly insolvency law weakens the positive effect of a growth firm on total debt financing. Since the interaction term in this regression analysis is not significant, we cannot confirm this hypothesis.

With the fourth hypothesis, we want to examine whether the change towards a more debtor-friendly insolvency law weakens the positive effect of being a growth firm on the proportion of debt granted by financial institutions (H2b). We notice a negative significant effect of the interaction term on the ratio loans from financial institutions to total liabilities. This result gives an indication that growth firms experience more difficulties in obtaining credit from financial institutions, after the change towards a more debtor-friendly insolvency law.

Finally, with our last hypothesis, we want to examine whether the change towards a more debtor-friendly insolvency law strengthens the positive association between being a growth firm and the proportion of supplier credit (H2c). Since the interaction term in this regression analysis is not significant, we cannot confirm this hypothesis.

Table 4.
Regression results.

Dependent variable	TDTL	FITL	SUP_CREDIT
Intercept	,962***	,249***	,006***
	(,050)	(,061)	(,001)
YEAR	-,004	-,005	-,000005
	(,003)	(,003)	(,000)
GROWTH	,014***	,023***	,000*
	(,004)	(,005)	(,000)
YEAR*GROWTH	,002	-,005**	,000026
	(,002)	(,002)	(,000)
AGE	-,002***	-,002***	,000012***
	(,000)	(,000)	(,000)
SIZE[a]	-,005***	,002*	-,001***
	(,001)	(,001)	(,000)
Liquidity	-,109***	-,038***	-,000062***
	(,001)	(,001)	(,000)
Profitability	-,005***	-,004**	-,000002
	(,002)	(,002)	(,000)
ASST	-,016***	,009*	,000*
	(,004)	(,005)	(,000)
RD_Ratio	,034	-,116	,002
	(,086)	(,091)	(,001)
Depreciation_Ratio	-,000002	-,000002	,000
	(,000)	(,000)	(,000)
Industry dummies	Yes	Yes	Yes
R-squared	,574	,139	,148
F-statistic	1083,731***	93,790***	138,394***
N	16 075	11 667	16 004

Where * indicates significant at 0.1, ** significant at 0.05 and *** significant at 0.01.
a. Natural logarithm.

4.1 Additional analysis

Based on the above analyses, we can indicate that financial institutions have become stricter towards growth companies when granting credit, after the change towards a more debtor-friendly insolvency law. In addition, we also note that the interaction term 'YEAR*GROWTH' is not significant in the regression analysis with the dependent variable 'Sup_Credit'. In other words, we cannot state that suppliers have become less strict with respect towards growth companies after the change in the insolvency law.

An important question to ask next, however, is which creditor has become more lenient towards growth companies in granting credit, after the change in the law. The regression analysis, presented in Table 5, with as dependent variable ‘Governance credit’ (calculated as the ratio governance credit to total debt), shows that the government grants more credit to growth companies after the change towards a more debtor-friendly insolvency law. We see this because the interaction term ‘YEAR * GROWTH’ is positive. In other words, we can state that the financing mix for growth companies has changed after the change in the Belgian insolvency law: they are now less likely to receive financing from financial institutions, but they do receive financing from the government.

Table 5.
Regression results: additional analysis.

Dependent variable	GOV_CREDIT
Intercept	,327*** (,032)
YEAR	-,003* (,002)
GROWTH	,014*** (,002)
YEAR*GROWTH	,004*** (,001)
AGE	,000*** (,000)
SIZE[a]	-,026*** (,001)
Liquidity	,028*** (,001)
Profitability	,001 (,001)
ASST	-,007*** (,003)
RD_Ratio	,138** (,054)
Depreciation_Ratio	-,000001 (,000)
Industry dummies	Yes
R-squared	,264
F-statistic	286,747***
N	16 012

Where * indicates significant at 0.1, ** significant at 0.05 and *** significant at 0.01.
a. Natural logarithm.

5. Conclusion

In this study, we examined the impact of the change towards a more debtor-friendly insolvency law on the financial policy of Belgian growth firms. Using the recent change in Belgian insolvency law as an exogenous policy shock, we investigated the changes in access to debt for growth firms, taking into account the heterogeneity of debt.

Our first empirical results show a significant positive relationship between being a growth firm and debt financing. Furthermore, we also find a positive relationship between being a growth firm and the proportion of loans from financial institutions and credit from suppliers to total liabilities. These results indicate that especially growing companies need sufficient and, above all, different sources of financing.

However, when examining the moderating effect of the change towards a more debtor-friendly insolvency law, we notice a negative significant effect of the interaction term on the ratio loans from financial institutions to total liabilities. This result gives an indication that growth firms experience more difficulties in obtaining credit from financial institutions, after the change towards a more debtor-friendly insolvency law. We do not find a significant effect of the interaction term on the ratio loans from credit from suppliers, so we cannot state that suppliers have become less strict with respect towards growth companies after the change in the insolvency law.

However, in our additional analysis we find an indication that the government grants more credit to growth companies after the change towards a more debtor-friendly insolvency law. In other words, we can state that the financing mix for growth companies has changed after the change in the Belgian insolvency law: they are now less likely to receive financing from

financial institutions, but they do receive financing from the government. This in turn may mean that the government bears a large part of the cost of the extra risk for the creditors, after the change towards a more debtor-friendly insolvency law.

This study contributes to the literature in several ways. First, it demonstrates that insolvency legislation does not only affect the entrepreneur but also affects different aspects of the financial policy of a firm. Furthermore, prior studies have examined the effectiveness of an insolvency law either in a cross-country set up or looked exclusively at what effect the change in the law had on interest rates. Moreover, these studies rarely consider the fact that the law can also have an impact on the relationship between the firm and their different key stakeholders. In this article, however, we took the heterogeneity of debt into account, when assessing the access to debt for growth companies, after the change towards a more debtor-friendly insolvency law. Furthermore, we used a single-country analysis. As a result, we can observe behavioral changes resulting from a change in insolvency legislation. Finally, our findings provide guidance to policymakers as to what are the possible expected and unexpected consequences, of such changes in law, in advance.

This study also contains some limitations. While using a single-country analysis has several advantages, validating these results in other institutional contexts will be a highly valuable path for future research. Moreover, in this study we examined the data over a rather limited time span of two years (2017 to 2019). We were forced to do this, as otherwise we would include the effect of COVID-19 in our analyses. For future research, this research question would be better explored over a longer time period.

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