

Starter Companies and Financial Constraints.

Evidence from the law change in Belgium

Leonid Guz

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Promoter: Prof. Dr. Francesca Melillo
Assistant: Steven Vanhaverbeke

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Abstract This research study investigates the Belgian start-up firms, between 2010 and 2012. One and half percent of these firms were Starter Private Limited Liability Companies (S-PLLC) with less than EUR 18,550 initial capital. Prior study by the Neutral Syndicate for Self-employment (*Neutraal Syndicaat voor Zelfstandigen* (NSZ)) has focused upon factors such as the loan policy and the profit margins. This work continues the preliminary study but elaborates it by examining the external control variables as industry branches, years-of-experience and macroeconomic environment. As result Starter-Private Limited Liability Companies are being financially constrained and suffer from the informal connotation of being a Starter. The results suggest to adjust the loan policy towards the starter entrepreneurs and induce more governmental capital subsidies.

Keywords Bank loan – Firm Growth – Subsidies – Starter-Private Limited Liability Company

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1 General Introduction

In the past ten years a lot of studies, devoted to the obstacles for the entrepreneurship in Belgium, have made clear that setting up an entrepreneurial activity is one of the most important limitations. In 2007 the first measure was taken allowing the self-employed person to retain his primary residence, when his company goes bankrupt. The debt holders are not allowed to confiscate the residence after it is declared at the notary. The next step was to reduce the initial set-up capital to facilitate entrepreneurs to establish their own firm. This is how the Private Limited Liability Company (PLLC) was shaped. The main purposes of the PLLC is to stimulate the entrepreneurial activity in Belgium, to ease the access to the advantages of the limited liability companies, which the Belgian legal system provided, and to protect the personal patrimonies for the credit holders in case of solvability complications.

During the financial crisis, which started in 2008, banks have been reluctant to lend money. The entrepreneurial activity in Belgium decreased and induced the government to create a new crisis alternative legal form. The adaptation of the English Limited Companies resulted in the Belgian Starter Private Limited Liability Company ¹ (S-PLLC). In June 2010 the Enterprise counter (*Ondernemingsloket*) recorded the first Starters.

The initial capital was reduced from the minimum EUR 18,550 to only EUR 1. The entrepreneur has kept the equivalent legal protection as in the PLLC. To avoid confusion the starters were obliged to mention their status “Starter-PLLC” on every official document. This statement has to be kept until the conversion to the standard PLLC.

Two years after the anti-crisis law modification, an internal study executed by the *Neutraal Syndicaat voor Zelfstandigen* (NSZ) and published in the economic newspaper “De Tijd”² showed the failure of the Starter firms. The main conclusions were the exclusion of the starters from the outside financial loans and the difference in profit margins compared to the standard limited liability companies (De Tijd, 2011). In addition the law reform has showed a limited increase of Starters compared to the standard PLL Companies for the corresponding period of time.

Large literature studies were devoted to the financial constraints of the set-up entrepreneurs in general. The second chapter enlightens the difficulties the entrepreneurs face in the initial phase of the activity. Theoretical frameworks and possible solutions are given in section 2.1.2. The different internal and external funds the entrepreneur can rely

¹ Sine Nomine, 28th January 2010, Voor 1 Euro in vennootschap, De Standaard.

² Dauwe, A., 1st September 2011, Een jaar starters BVBA is geen reden tot vieren, De Tijd

on at the set-up phase are found in paragraph 2.2. Section 2.3 describes the European company entities, adapted by the entrepreneurial policy with the objective increase the business activity. In the third chapter, the sample is analysed empirically for the Belgian firm dataset. The overall findings are summarized in the fourth chapter.

In this study the data, taken from the Belfirst database (Bureau Van Dijk), allows to elaborate the study more intensely than the study executed by the NSZ.

2 Literature review

2.1 Financial Constraints

2.1.1 Defining the financial constraints

Entrepreneurs have been considered as a driving force behind the economic growth, given their contribution to the employment. In particular, entrepreneurs with new ideas and technologies enter and displace the incumbents, leading to a continued increase in productivity and economic growth (Audretsch et al., 2006; Gries and Naudé, 2008). Moreover start-up entrepreneurs are important potential drivers of aggregate innovation and productivity (Aghion et al., 2009).

However, almost every start-up entrepreneur faces the struggle in overcoming financial constraint in the initial stage (Kaplan and Zingales, 1998), which results in a significant impact on the growth of the firm in the early years. A firm needs additional external capital during the set-up and has problems to acquire it. In general start-ups have no track record in the financial institutions, which leads to higher evaluation costs. A study of the World Bank explained that the availability of credit history information of the entrepreneur reduces processing time and costs by more than 25% (World Bank, 2006). In contrast, most recently founded start-ups are small firms, which do not require audited financial statements and do not have much publicly visible information for the external financial investors (Stucki, 2013). These costs contribute to increasing potential being financially constrained at the begin.

Financial constraints are not only a problem, which affects the success of start-ups in the first years, but also affects the profit negatively during the company's lifetime. The entrepreneur faces recurring liquidity constraints once being financially constrained in at the set up. (Stucki, 2013). Firms, which reported being financially constrained in their first year of operation, have a lower chance of survival during the following years of operating (Saridakis et al., 2007). As example of the liquidity constraints, the impact on the small firms in England is represented in Figure 1 where the survival rate express in function of the age of the firm.³

³ Saridakis, G., Mole, K., J. Storey, K., 2007, *New Small firm survival in England*, Empirica, p 36.

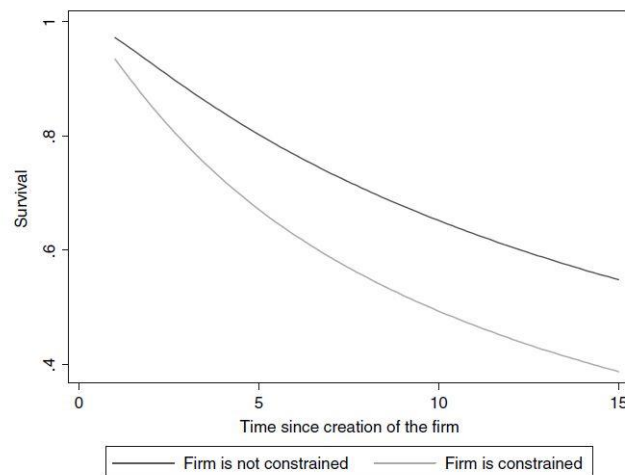


Figure 1: Survival rate of small firms.

Fortunately, the negative impact decreases with growing age of the firm. As result, the acquisition costs of external capital lower, and the loan sizes become less limited for the mature firms (Brito and Mello, 1995).

2.1.2 Theoretical framework and solution for start-up costs

Start-up and liquidity costs differ in value across the countries, but in general almost all set-up entrepreneurs are confronted with these financial barriers. Fonseca et al. (2007) described the one-on-one relation between the start-up cost and the liquidity constraints. High start-up costs are usually associated with high liquidity constraints, which results in fewer individuals becoming entrepreneurs and as consequence transforms into a vicious circle. The Chamber of Commerce argued that reducing start-up costs for new businesses are a potential treatment for recovering the European entrepreneurial labour market. Possible solutions in reducing the start-up costs are based on two proposals provided by Nicoletti et al. (1999).

The first proposal is creating a more administrative transparency in licenses and communication to the entrepreneur. Capital markets provide insufficient capital to entrepreneurs, because of moral hazard and adverse selection problem (LeRoy and Singell, 1987). The larger the exposure to the risk associated with the information asymmetries, the higher the return of capital demanded by financing organisation. This leads to smaller firms being lent less capital or offered capital at higher rates than the larger firms (Cassar, 2004). Start-ups need a professional supervisor, who can provide objective information to the outside institutions (e.g. a bookkeeper or external auditor). The second proposal is the simplification of the rules in administrative and bureaucratic obstacles, which increase the start-up costs for new firms. A simplified set-up process works stimulating and creates positive awareness for the would-be entrepreneurs.

An extra suggestion was added by Belke et al. (2002) on the availability of establishing new institutions for venture capital and public financial support (crowdfunding) to support new-firms growth and reducing initial set-up costs.

Lowering start-up costs, increases the production in the initial phase of the firm and, moreover, offers the incentives to invest in education of high-skilled workers (Pissarides, 2000; Fonseca et al., 2007). Finally Comin and Nanda (2009) illustrated that the difficulties faced by set-up entrepreneurs due to the large start-up capital might adversely impact the integration of new technologies. As consequence, a lack of innovation would impact negatively the firm growth and increase bankruptcy level.

2.1.3 Role of the government

The government obtains the title role in the financial system. Given the economic importance of start-ups and the intense interest, policy makers should encourage the entrepreneurial activity (La Porta et al., 1998). Although, the direct role of the government is relatively unimportant. It can offer governmental subsidies to reduce the financial barrier faced by the start-ups. Subsidies are mostly given in the form of a lowering of the interest rate on bank loan, but not all start-ups are able to receive bank loans. Following Reynolds et al. (2005) experienced entrepreneurial investors are more crucial for start-up entrepreneurs. Therefore, the indirect role of the government in Belgium is more important in the perspective that it funds large venture capital companies (cf. *Belgian Participatiefonds*), which in their turn fund the start-ups. It takes averagely two years between the approval and the moment the resources are available for the start-up, because an extensive administrative process is required (Manigart and Struyf, 1996).

Furthermore, there are three main complications with governmental subsidies (Manigart and Struyf, 1996). First, the different governmental subsidy programs are not well-known by the set-up entrepreneurs, although there are legislative agencies to inform them. Second, the process of receiving a subsidy is too bureaucratic and third, the process is too long.

Two-model proposition developed by Acs et al. (1989) describes the tax regulations the government can offer, as part of grant. Reducing tax rate for star-ups contributes to the survival during the initial years of entrepreneurial existence. As example, the Belgian policy decreased corporate tax rate from average 33.99% to 24.98% for the start-ups⁴. The second suggestion is reorganizing the bankruptcy law and the creditor right.

As illustration, in 2009 this resulted in the Law of continuity of companies (*Wet betreffende de continuïteit van de ondernemingen, W.C.O.*) in Belgium. The law implies

⁴ The taxation rate of 24.98% can only be used if the dividend pay-out ratio is maximal 13% of the incorporation capital.

to restructure the debts when the company is challenged by liquidity complications for a certain period of time. An agreement is set up between the debt holders and the company.

2.2 Financing the start-up

Financial constraint is an important reason for the failure of new firms during their initial years of life. Firms are really paying off, when internal financial flows increases, while dependency on external capital decreases (Brito and Mello, 1995). Recently established firms generate only limited cash flows, and as a result many start-ups have to rely on the infusion of capital from external sources, such as venture capital and bank financing. Nevertheless outside capital is often too limiting for these firms (Stucki, 2013). The next subsections elaborate the varying financing methods.

2.2.1 Personal savings

The first-aid financing method the start-up exploit, is the personal fund. Would-be entrepreneurs with more personal assets are more likely to become self-employed and set up their business (Evans and Jovanovic, 1989). However, nonbank financial inflows have become increasingly important providers of additional credit to new businesses (Black and Strahan, 2002). These include the personal savings of the entrepreneurs in the first place, supplemented with capital or loans from the family and friends. Bootstrapping, to start a business without external expertise or external financial capital, is another most likely option used by the set-up entrepreneurs (Bhide, 1992). Bootstrap starters fund their business development through internal cash flow as long as possible and are more careful with the expenses (Hall, 2010).

2.2.2 Bank financing

Bootstrapping is not always an optimal solution for the start-ups. Nearly 90% of the smallest U.S companies use banking services (Black and Strahan, 2002). Entrepreneurs can borrow capital from the banks to set up their business. Especially start-ups, with the intension to grow, are more likely to use external bank financing. In Belgium, bank financing is limited to loans, but is perceived to be more essential than in the U.S (Manigart and Struyf, 1996). However, because of limited credibility, banks are reluctant to grant credit to set-up entrepreneurs with low levels of wealth input used as collateral (Luo, 2008). The main concern for these difficulties is the asymmetric information between the entrepreneurs and external finance source (Stiglitz and Weiss, 1981; Binks and Ennew, 1996). Many start-ups are likely to have fewer tangible assets with verifiable

valuations, which are used to evaluate the creditworthiness of the entrepreneurial activity by traditional financial institutions (Nanda and Kerr, 2009). Banks prefer to offer resources to safe and risk free businesses. This is a contradiction for the average start-ups, whose business is not obvious to organise and inherits a lot of risk. Thus, the entrepreneur has to rely on other external funds.

2.2.3 Venture capital and Business angels

Venture capital (VC) plays a distinctive role primarily in the early growth phase rather than in the development phase (Bruno and Tyebjee, 1985). The primary objective of the venture capitalists is to increase the return on investments. Venture capitalists provides non-financial resources as well, such as customer and supplier relations, technical expertise and employee recruitment, which may improve survival success of the start-up (Nanda and Kerr, 2009). Venture capitalists prefer to fund set-up entrepreneurs located within a short geographic distance to be able control the investment (Sorenson and Stuart, 2003). Nonetheless, in Europe the availability of venture capital is strongly limited, because the financial institutional environment is more bank oriented compared to the U.S.'s market orientation (OECD, 2008). As consequence, the VC community in Europe is less developed. In additional, countries, where the dismissal of the workers is tougher, are associated with weaker VC markets (Bozkaya and Kerr, 2007).

Business angels are related to venture capitalists. The main difference between the two consist of the quantity of the investment and the hands-on approach by the venture capitalists at the capital seed stage. Private business angels are widespread in Belgium as outside financing opportunity, but problematic to find (Manigart and Struyf, 1996).

2.2.4 Social network

As a start-up, it is strongly advised to build up a broad social network, which could help financially establish the business. Paulson and Townsend (2004) provided evidence that entrepreneurial talent and social network are compliments with the outside investments. Would-be entrepreneurs, who have been in contact with successful entrepreneurs, will have more confidence in launching their business and minimize overhead initial costs (Bandura, 1978). Therefore, established start-up firms have to create the reliability and the accountability with the external fundraisers (e.g. finding a new business angel) (Hannan and Freeman, 1984).

Despite the broad scope of the internal and external sources, not every single would-be entrepreneur is able to launch a company. The financial crisis started at the end of last decade caused a lot of financial complications for the lending institutions. Governmental intervention was needed to bring the entrepreneurial activity back on track. The next

section treats how European entrepreneurial policies have come up with a solution against the crisis and the entrepreneurial activity decrease.

2.3 Entrepreneurial activity in Europe

The consequences of the financial crisis, started in 2008, have had an effect on the entire entrepreneurial activity in Europe. Unemployment has risen across Europe and youth has faced even tougher conditions in entering the labour market. As crisis alternatives measures European countries decided to induce the entrepreneurial activity, which is disproportional to the unemployment rate. Table 1 represents the entrepreneurial activity across European countries with slightly increases during the crisis years partly due to the measures taken by the policy makers.

Country	Average	2012	2011	2010	2009	2008
Belgium	4,8%	5,0%	5,7%	3,7%	3,5%	2,9%
France	4,9%	5,0%	5,7%	5,8%	4,3%	5,6%
Germany	4,9%	5,0%	5,6%	4,2%	4,1%	3,8%
United Kingdom	6,4%	9,0%	7,3%	6,4%	5,7%	5,9%

Table 1: Total entrepreneurial activity across European countries. ⁵

European governments have set up a substantial number of programmes in place to help the would-be entrepreneurs start their businesses including entrepreneurship education and training, financial support and law reformation to stimulate entrepreneurial activity. Policy makers principally have targeted set-up entrepreneurs, provided them sufficient support to allow start businesses, reduced the entry barrier, which is the initial start capital. In the next section, four examples of European countries are given, which have undertaken the increasing unemployment, and how the local government reformed the entrepreneurial legal system in order to appeal more would-be entrepreneurs.

2.3.1 United Kingdom

The UK had introduced the limited liability company (LLC) form, which was used as the inspiration for at least two other European countries later. As published on the UK's government website page, the function of a limited liability company is provide the protection for the personal assets of an entrepreneur from the business activities. The liability for debts in a limited company is usually limited to input of the shareholders (the initial incorporation capital). The main advantageous features of the LLC are separate

⁵ International Entrepreneurship, (2015), Total European entrepreneurial activity, consulted February 2015.

legal entity, limited liability and flexible tax treatment⁶. These entities are characterized by simplicity in terms of documentation and operation. LLCs are obligated to appoint at least one director, who can also be a shareholder in the company, although the companies do not require an annual shareholders' meeting. The initial minimum capital of LLC is not defined.

2.3.2 France

A SAS (*Société par Actions Simplifiée*) is a simplified form of SA (*Société Anonyme*) with at least two shareholders. The form of the corporation is much more flexible compared to a SARL (*Société à Responsabilité Limitée*). A SASU (*Société par Actions Simplifiées Unipersonnelle*) is a type of SAS but formed under a single ownership.

The difference with a SA is a more flexible transfer of the management functions and company shares, as it has no restrictions organised by the statutes. A SAS is not allowed to trade shares publicly. At least one “president” (Managing Director) must be assigned, who may be an individual or a legal entity. The “president” represents the company and is liable for all of the acts of the company. Obviously, the “president” is referred to the founder of the SASU.

The minimum capital of SASU is set at EUR 37,000 but since 2009, the minimum capital threshold is vanished and the entrepreneurial activity can be set up with EUR 1, divided into shares.

2.3.3 Germany

Since 1 November 2008, due to a law reform, setting an entrepreneurship in Germany has become less complex and expensive. A mini-GmbH (*Unternehmergesellschaft, UG*) can be established with capital of one euro or any other sum up to EUR 25,000 which is required for a regular corporation GmbH (*Gesellschaft mit beschränkter Haftung*). The mini-GmbH has a management board and is subjected to corporate taxes. International investors have found the low investment a strategic advantage to develop business in Germany, as the economical centre of Europe.

A disadvantage of the mini-GmbH may be the requirement to contribute 25% of the profit margin to the capital reserve. The reserve is not available to shareholders, which consist of maximum three natural entities, and is used as saving account to convert the UG (mini-GmbH) to a standard GmbH as soon as possible. When the amount of EUR 25,000 is reached, the legal form can be converted into a regular German GmbH although it is under no obligation. The starter name status must contain either the

⁶ The company's director is allowed to claim Marginal Relief to reduce corporation tax if the annual profits vary between £300,000 and £1.5 million.

word *Unternehmergeellschaft* or the abbreviation *UG*, until the company becomes a regular *GmbH*. The second disadvantage is lacking trust in establishing track a record due the *UG* suffix. The suppliers are less likely to extend a credit line. Thus, working with external experts and professional accountant is recommended to communicate more objective financial information.

The founding of the mini-*GmbH* involves less administration and is less expensive. The law provides a standard procedure rather than a complex protocol drawn up by a notary for a regular *GmbH*. The procedure requires trivial information for instance the purpose of the company, the names of the management board members and a list of the shareholders. Founding costs for a mini-*GmbH* are depressed to a total of EUR 300. However, no difference is assigned in tax rates between an *UG* and a *GmbH*. Both legal types are obliged to register at the local tax office.

2.3.4 Belgium

Following FPS Economy Belgium, the most common forms of companies in Belgium are Private Limited Liability Companies, Limited Liability Companies, Cooperative Companies, General Partnerships, Limited Partnerships, Partnerships limited by Shares. The most advised legal form of company for a set-up entrepreneur is Private Limited Liability Company (PLLC). At least two founders are required to set it up. There are exceptions in the particular case of one-person Private Limited Liability Company which may be created by a single ownership.

The advantage of a PLLC is making a complete distinction between the company and the personal assets of the founders. Therefore, the responsibility is limited in case of bankruptcy, although there are exceptions to this rule.

The Private Limited Liability Company requires an initial set-up capital of at least EUR 18,550 at the time of the creation. The notary confirms once the payment is executed. The struggle for most set-up entrepreneurs is the threshold of initial capital to start the business. Following Hamilton's finding (2000), the opportunity cost is considered too high for taking the risk of becoming an entrepreneur. As results, would-be entrepreneurs have been reluctant to establish own entrepreneurial activity. The opportunity cost has only risen during the financially crisis.

Macroeconomic complications hit the Belgian would-be entrepreneurs as well. During the financial crisis, the Belgian legislator recognised the need by young entrepreneurs. In attempt to stimulate entrepreneurial activity in Belgium, the Belgian policy makers introduced a simplified set-up entrepreneurial legal form for firms as adaptation of the English Limited Companies and the German mini-*GmbH* (SME Plan 2009 approved 10 October 2008). The purpose of S-PLLC was to offer an entrepreneurial activity that is more available for starting entrepreneurs. It no longer involves relatively large initial

capital. Therefore, the minimum required capital for the S-PLLC has been set at symbolic one euro and a theoretical maximum of EUR 18,549. Within these limits the starting entrepreneur determines the amount of the subscribed incorporation capital.

Following Leenknecht and François only natural persons, attained the age of majority, can incorporate a S-PLLC. A few restrictions were needed in order to secure the position of creditors. The founders of a S-PLLC have to draw up a financial plan in which they justify the sum of the capital of the S-PLLC. This financial plan is retained by the notary. Additional restriction requires the founders to obtain the assistance of a recognised bookkeeper.

The S-PLLC is intended as a stepping-stone to regular PLLC. Accordingly, the status is only granted for a limited period of time. The shareholders are encouraged to increase the capital to the usual minimum set-up capital for a PLLC (EUR 18,550), or as the company is employing more than equivalent of five full-time employees. As soon as the S-PLLC has been in existence for five years⁷, the shareholders are liable towards the debtholders for the discrepancy between EUR 18,550 and the amount of the subscribed capital at that moment. Thereby the company loses its "Starter" status. Obviously, a capital increase can also be implemented earlier.

If the S-PLLC goes bankrupt within three years after the incorporation, the founders can be held responsible for the unpaid debts. This occurs if the equity at incorporation is noticeably insufficient for the standard execution of the daily activities over a period of two years.

Even after the law amendment, 60% of the would-be entrepreneurs in Belgium are unenthusiastic to set-up an entrepreneurial business because of the initial financial investment and potential liquidity constraints⁸. To confront to this matter, the Belgian government elaborated and implemented entrepreneurial subsidy programs. The implemented novel forms of subsidies, aimed to help start-ups to fund their set-up company during the initial years of existence, are discussed in the next section.

⁷ This rule is not binding since 13th February 2014 (Belgian Official Journal 4th Feb 2014). The law loosening was set up by the ex-Minister Sabine Laruelle, because of a small increase in Starter companies and the later conversion to standard PLLCs.

⁸ Evelien Verschroeven, Subsidies startende zelfstandige, Xerius.

2.4 Subsidies

The Belgian government has established *Participatiefonds*, a credit institution focusing among others on providing subsidies for the starter companies. The main important subsidies for the start-ups are explained below.

2.4.1 Initio

The state-of-the-art program, called Initio is a subordinated loan, which ranks after the outstanding debts the entrepreneur is obligated to reimburse if the firm is placed into liquidation or bankruptcy. The entrepreneur receives this loan partly from the *Participatiefonds*. The loan interest rate is fixed at 4.0% during three, five or seven years depending on the agreement. The maximal sum the entrepreneur might rely on is fixed at EUR 100,000 and limited to a maximum of five times the personal input of the entrepreneur. The request for the loan is done via the bookkeeper certified at the BIBF or an external auditor.

The advantage of Initio is the generated confidence for the financial institutions. The external fundraiser, mostly the commercial banks, would acknowledge the loan more rapidly to a starter after being guaranteed that the starter is partly secured for 50% by the subordinated loan. Finally the *Participatiefonds* does not request any collateral for 50% of the loan.

2.4.2 Starteo

Another financial start-up program is Starteo. The financial program is focused on entrepreneurs, who set-up the entrepreneurial activity maximal four years before. Starteo strengthens company's equity and simplifies the acquisition of the bank loans (maximum EUR 250,000) from the Belgian banks, which collaborate with the *Participatiefonds*. Optimeo is a variant of the Starteo program with the equivalent determination and procedure, except it used for companies established longer than four years and with maximum lending capacity of EUR 300,000.

2.4.3 Business Angels

BA+ is a Belgian business angels project for the Belgian innovative entrepreneurs, who are in the seed phase and are financially constrained. BA+ provide external financing for the entrepreneurs, who are not able to receive sufficient bank loans but are in need for external finance. Each entrepreneurial project is proposed to the business angels' network and financed with a maximal of EUR 125,000 after selection by an angel group.

2.4.4 Casheo

Casheo's purpose is to mobilize the debts from the governmental organisations such as the Federal Government, the Districts, the regional and the local government. The debts are reimbursed or deducted from the debts the entrepreneur owes to these organisations. Belgian companies, whose shares are mainly owned by the government are treated equally by the program.

The next chapter introduces the empirical study of the financial constraint framework treated in this chapter, which the Belgium start-up entrepreneur could confront during the company's life cycle.

3 Empirical methods and Data

3.1 Expectations

In this chapter the main analyses are made about the loan policy, the company growth rate and the governmental aid subsidies for the start-up firms in Belgium.

3.1.1 External financing

The Starter sets up a firm starting with only one euro and receive similar legal protection as the at Private Limited Liability Companies. By the legislation and the declaration executed by the notary, the personal assets of the entrepreneur are protected from the banks. However, the starter is liable for a capital of EUR 18,550 during the company's liquidation, even if the initial capital is lower. The debtholders are allowed to confiscate personal assets of the entrepreneur if the S-PLLC goes bankrupt within the first three years after establishment. However this procedure has to pass through juridical trial, which is time consuming and preferably be avoided by the banks and the short term debt holders.

Each financial institution rations the loan risk to receive the maximum return from the debtors. Due to the small set-up capital, the banks are not eager to lend capitals to the starters, because of low collateral and unavailability of the track record. Figure 2 represents the implication the bank faces when lending resources to the debtholders.

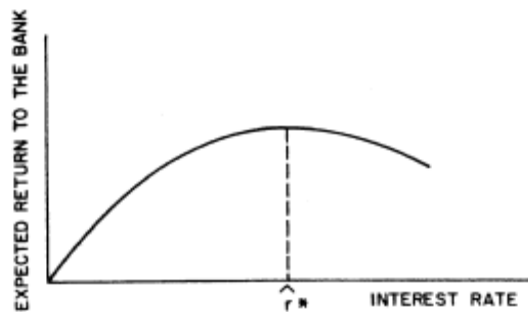


Figure 1: Expected interest return.⁹

⁹ Stiglitz, J. E., Weiss A., (1981). Credit rationing in markets with imperfect information, American Economic Review, p 854.

Starters would not be able to borrow more even if they indicate a positive willingness to pay in the future. This can increase the risk of the bank's loan portfolio and reduces the expected return (Stiglitz, 1981). This financial restriction is equally shifted to the short term lenders such as the suppliers and short term loans. The suppliers expect the starters to pay in advance. As a consequence, starters who require stocking the goods for sales are in need of additional capital to pay the debt holders. Such starters can be found in the construction industry branches and are examined in the multivariate analysis using the industry branches as control variable.

The three arguments result in expectation the S-PLLC has a reduced quantity of long term bank loans compared to the PLLC, due to their minimum initial capital of EUR 18,550 which the banks probably use as collateral to secure the loans. This expectation is confirmed in the study by the NSZ, elaborated in 2012. A similar effect is expected for borrowing on short term. In this way the starters of a S-PLLC would receive less short term credit than the regular PLLC's entrepreneurs from the equivalent activity sector.

Hypothesis 1: S-PLLC is negatively related to long-term bank financing and short-term credit loans.

3.1.2 Growth rate

Initially, the company size significantly matters for the growth rate. As assumed in Hypothesis 1, a S-PLLC is expected to have less bank loans, because of low collateral. In most cases, this results in a lower growth rate. The Starter firm lacks investing opportunities, due to the liability of smallness (Freeman, 1983).

It is believed entrepreneurs with large internal funds are estimated to establish a PLLC rather than a starter to avoid the negative connotation of a starter. Moreover, the sociological factor could contribute in the growth rate. Perceived job satisfaction and passion positively affects business outcomes for example the growth of the company (Judge et al., 2001). The passion is derived from the experience in undertaking something and transforms this experience into an entrepreneurial activity. High skilled and passionate would-be entrepreneurs would invest more financial resources in the activity (Paulson et al., 2004). This contributes to the assumption that the starters represent businesses, where the entrepreneurs could lack sufficient knowledge. As consequence, high skilled and passionate entrepreneurs would invest in a regular PLLC rather than in Starter company with assumption, the growth rate of a company is measured by the increase in turnover.

Alternative growth rate measure is using the profit margin. The law obliges S-PLLC to have 25% of the profit margin as revenue reserve, compared to the 5% for a PLLC. This restriction could obstruct investing in growth. The capital reserve will be exploited

ultimately after five years, when the entrepreneur converts the S-PLLC to the regular PLLC and recapitalize the initial capital the legal minimum of EUR 18,550.

The study examined by NSZ compared 1279 starters established since 2010, regardless the industry branch they operate in. Neglecting this fact, it is impossible to make a distinction in growth rate between starters, or the shrinking industry sector the entrepreneur operates in. Thus, NACE-BEL (2008) codes are applied in the multivariate analysis to examine the difference in the growth rate across the multiple Starter-present industry branches.

Hypothesis 2: S-PLLC growth rate is significantly lower compared to the PLLC.

3.1.3 Subsidies

Governmental policies have enough power to influence the entrepreneurial activity in a society. Many attempts have been made by the governmental policies for the entrepreneurs to enhance the entrepreneurial activity (Harrison et al., 2004; Minniti, 2008). The evidence from the recent entrepreneurial policy confirms that the government would invest over EUR 30 million in the start-up plans to enforce the entrepreneurial activity. Part of the investments would be allocated as supplementary subsidy opportunity to Starter PLLCs to increase their activities. This evidence was published in the Belgian economic newspaper “De Tijd”.¹⁰

Yet, the external stakeholders are often at an information disadvantage about young firms because of a lack of formal records (Shane and Stuart, 2002). To support the entrepreneurial activity, the government needs to form financial instruments to reduce the financial constraints faced by the starters. The main instruments consist of the mutual credit and micro finance schemes. Mutual credit, which implies reducing the information asymmetries between the borrower and the financial institution. The financial plan has become compulsory for all starters. Most set-up entrepreneurs overestimated their future income at the initial stage. To compensate the overestimation the policy makers advised a set-up entrepreneur to be assisted by a professional bookkeeper, who shares financial expertise for establishing a well-structured and objective financial plan. The financial plan mirrors the objective financial statement when the company considers applying for a loan. The microfinance schemes, which reduce the financial risk by selecting collateral, based on the nonmonetary accountability (Khoja and Lutafali, 2008; Minniti, 2008). Social capital can be used as an alternative tool to financial intermediation, to increase the collateral for the starters during the initial phase. The Belgian policy promoted the entire Starter activity by implementing subsidy programs tailored for the Starters. Using the legal entity as

¹⁰ Sine nomine, March 30th 2015 , Begroting voorziet fiscal stimulans voor start-ups, De Tijd.

promotion program, the government has had the intention to stimulate the entrepreneurial employment rate. As consequence, the Starters have created a positive awareness to be financially supported by the Belgian entrepreneurial policy.

Hypothesis 3: S-PLLC is more supported by the capital and interest subsidies.

3.2 Method

3.2.1 Sample

The initial data sample in this study is obtained from the Belfirst database developed by the Bureau van Dijk. The data of the Private Limited Liability Companies and Starter-Private Limited Liability Companies in Belgium, used in the paper dates from 2010 to 2012¹¹. 2010 is used as a milestone when the S-PLLC were introduced and entrepreneurs were able to establish a starter entrepreneurial activity beginning of June 2010.

To improve the quality of the results, a few corrections are made to create the balanced sample. In the first place, the very large PLL Companies with set-up capital over EUR 50,000 are dropped. This limit is used as maximum initial capital for the S-PLLC in the dataset. Secondly, the minimum incorporation capital is set up at EUR 1 and EUR 18.550 respectively for S-PLLC and regular PLLC. The final adjustment concerns the size of the firms. In the sample the size is measured by the full time equivalents workers. However, by the legal form, the work force of S-PLLC is limited to five full time employees (FTE). To encounter this limit PLLCs, which exceed five FTEs, are excluded from the data sample.

3.2.2 Dependent variables

The data provides 52,394 Private Limited Liability Companies and 1,207 Starters Private Limited Liability Companies active in Belgium, each with the industry branch code, NACE-BEL. After the reshape and previously discussed adjustments, the sample contains 52,686 firm-year observations including 827 starters. The starters represent 1.5% of the total sample.

3.2.3 Test variables

The test variables in the regression are the dummy variables created by the PLLC or S-PLLC with less or equal to five full time equivalents and initial capital less than EUR

¹¹ 2012 is the last possible date in the database Belfirst, consulted March 2015.

50,000. The two variables in this research paper are matched with the variables used in the study by the *Neutraal Syndicaat voor Zelfstandigen* (NSZ). This allows to compare both studies and even elaborate the study of the NSZ more thoroughly by adding control variables.

3.2.4 Control variables

3.2.4.1 The age

The age of an entrepreneurial activity plays a key role in the survival barrier. Many entrepreneurial start-ups fail within a relatively short period of time (Lorrain and Dussault, 1988). In the regression outcomes age is used as control variable to examine the effect on loan policy and the growth rate of the set-up firm. Therefore, the variable is used as comparison between the two legal forms and expresses the potential liability of newness of a company. New established firms are more likely to leave, because of external (the financial) and internal (the experience) obstacles. Empirical studies in the past confirmed the age variable was negatively related to the mortality rate of the firm (Caroll and Delacroix, 1982).

The limitation in this study is that the company can only age maximally three years, which is too short to draw strong conclusions based on the liability of newness. The first five years after setting up a company are the most challenging years when the firm is most financially constrained. During this survival period the entrepreneurial activity is prone to the high bankruptcy level, which it is on its peak. 30% of the Belgian limited companies do not survive the first five years. Many established start-up companies have short performance histories and are highly risky, operating for a couple of years before becoming profitable.

3.2.4.2 Size

One of the most striking facts regarding the dynamics of industries that has emerged from empirical studies is that the survival rates of businesses are positively related both to establishment size and age (Lawrance, 2008). Full time equivalents are added over the period 2010-2012 to measure the size of the entrepreneurial firm. Small entrepreneurial firms face difficulties regardless the firm's age. Moreover, the early discussed liability of newness can be interdependent with the liability of smallness (Freeman, 1983).

3.2.4.3 Industry

Many of the primary studies did not specifically examine if the company survival varies across specific industries. Audretsch (1991) has found that survival rates do, in fact, differ considerably across industries, and that they are shaped by the conditions of technology and demand in underlying industry branch.

To adopt the previous finding, the control variable NACE-BEL (2008) code is added to the regression. The updated NACE-BEL code consists of five digits and represents an individual industry branch in Belgium. The control variable is split into 44 different industry branches based on the first two digits, which can on a large basis divide the industry sectors.

Only the industry branches, where the start-ups active in, are used in the multivariate analysis. The results match the Starters to the regular PLLC more precisely. In general the most Starter firm-year observations are found in the branches “Specialised construction firms” (NACE-BEL 43), “Retail” (NACE-BEL 47), “Catering industry” (NACE-BEL 56) and “Consultancy and advisory offices” (NACE-BEL 70). These findings are in agreement with the study published by the NSZ. The list of two digit NACE-BEL codes, where starters are active in, is broken down in the table 2.

The use of industry branches is an elaboration on the preliminary study published by the NSZ. The variance between the industry branches uniqueness is an enforcing argument in the loan policy complication.

3.2.4.4 Year

Finally, the new control variable year are added to control the macroeconomic stability during the years 2010-2012.

NACE-BEL 2	Freq.	Percent	Cum.	NACE-BEL 2	Freq.	Percent	Cum.
1	5	0,6	0,60	62	38	4,59	61,55
10	6	0,73	1,33	63	8	0,97	62,52
16	2	0,24	1,57	64	7	0,85	63,36
18	4	0,48	2,06	66	2	0,24	63,60
25	4	0,48	2,54	68	8	0,97	64,57
29	5	0,6	3,14	69	16	1,93	66,51
33	3	0,36	3,51	70	101	12,21	78,72
39	2	0,24	3,75	71	27	3,26	81,98
41	43	5,2	8,95	73	12	1,45	83,43
42	2	0,24	9,19	74	11	1,33	84,76
43	176	21,28	30,47	78	4	0,48	85,25
45	11	1,33	31,80	79	1	0,12	85,37
46	36	4,35	36,15	80	2	0,24	85,61
47	62	7,5	43,65	81	42	5,08	90,69
49	21	2,54	46,19	82	22	2,66	93,35
52	3	0,36	46,55	85	16	1,93	95,28
53	8	0,97	47,52	86	4	0,48	95,77
55	1	0,12	47,64	90	12	1,45	97,22
56	65	7,86	55,50	92	2	0,24	97,46
58	1	0,12	55,62	93	5	0,6	98,07
59	8	0,97	56,59	95	6	0,73	98,79
61	3	0,36	56,95	96	10	1,21	100
Total				827 100			

Table 2: Two-digit industry code with active S-PLLCs.

3.2.5 Independent variables

3.2.5.1 Loans

External funds are extremely important during the initial set-up phase for every starter who is financially constrained (Manigart and Struyf, 1996; Black and Strahan, 2002). The long term loans are mainly characterised by the bank loans, venture capitals, governmental subsidy loan programs and even business angels while for the short term all kind of sources were used from (un)related individuals, businesses and suppliers.

3.2.5.2 Mortgages

The financial mortgages are the collaterals the companies offer to the financial institutions in place for securing the debts.

3.2.5.3 Initial capital

The variable initial capital measures the collateral of the set-up company at the incorporation phase when the external financing is needed. As mentioned before, Starter firms do not need to document their initial capital since the law modification allows them to set up a company with one euro. As result, this could have an impact on the dataset.

3.2.5.4 Subsidies

La Porta et al. (1998) and GEM¹² proposed to enable more intervention from the government to provide the set-up entrepreneurs with more financial subsidies and increase the entrepreneurial spirit in the first years of the firm existence. Capital and interest subsidies, published in the financial account are used to research the difference between the subsidy policy for the Starters and standard Private Limited Liability Companies. These subsidies are emitted as financial assistance for the set-up companies and facilitate would-be entrepreneurs to establish their own firms. The purpose of the Belgian government has led to incentives for entrepreneurs, who had been repulsed of the financial barriers of a PLLC, to launch a limited liability company. The capital and interest subsidies could assist more entrepreneurs take action to set up their entrepreneurial activity.

A lot of missing values for these variables are found in the sample which can bias the regression results. However, none of substitute database provide such qualitative information about the Belgian entrepreneurial subsidies.

3.2.5.5 Accountant

Variable the external accountant characterizes the availability of a bookkeeper, which is used to manage the financial forecast professionally. The bookkeeper plays a key role for the request of the subsidies by the start-up.

¹² Global Entrepreneurship Monitor

3.3 Results

3.3.1 Descriptive statistics

The summary statistics of the test and independent variables are provided in the Table 3. The table represents the means, minima and maxima of the S-PLLC followed by the regular PLLC and finally the entire dataset. The missing values were dropped and this resulted in total of 52,686 firm-year observations including 827 starter observations.

First astonishing fact in these statistics is the initial capital put in by the starter entrepreneur. The minimum initial capital is prescribed by the law at EUR 1. The maximum initial capital in the sample is EUR 50,000. This allows the starter to set up standard PLLC without concerns. In summary, there are 29 Starter firms, which exceeded the minimum capital of the PLLC; although those founders have decided to establish a Starter company. Second, the long term and short term loans appear to constitute around 11.5 % of the total assets of starter firms. This means a start-up finance the total assets with 11.5% loans of average. In contrast, the loans fund the total assets for a quarter of the Private Limited Liability companies. This gives the first impression about difference in the loan policy between the company forms. Third, the turnover and profit differ undoubtedly between the entities and would have an impact on the firm growth. Last of all, the lack of interest subsidies data for the Starters in the sample.

Variable	S-PLLC				PLLC				Total			
	Obs	Mean	Min	Max	Obs	Mean	Min	Max	Obs	Mean	Min	Max
Total Mortgages	827	1038,498	0	117495	51859	18607,59	0	69600000	52686	18331,31	0	69600000
Long Term Loan	827	4749,631	0	218548	51859	51358,00	0	23700000	52686	50705,15	0	23700000
Short Term Loan	827	1725,852	0	67377	51859	8200,99	0	3050000	52686	8099,35	0	3050000
Total Assets	827	48836,870	2	1376635	51859	188122,40	6	133000000	52686	185936,00	2	133000000
Profit	827	8051,098	-181302	225252	51859	12074,52	-3076946	53200000	52686	12011,37	-3076946	53200000
					51859				52686			
Capital Subsidies	827	5,386	0	4387	51859	1045,31	0	16100000	52686	1028,99	0	16100000
Interest Subsidies	827	0,000	0	0	51859	0,30	0	5469	52686	0,29	0	5469
Turnover	827	13194,410	-180822	294424	51859	21078,08	-3064733	55500000	52686	20954,33	-3064733	55500000
Age	827	0,992	0	2	51859	1,06	0	2	52686	1,06	0	2
Size	827	0,179	0	5	51859	0,38	0	5	52686	0,38	0	5
					51859				52686			
Initial Capital	827	3192,218	1	50000	51859	19803,43	18550	50000,00	52686	19542,69	1	50000,00
Total loan on Total Assets	827	0,115	0	2,053	51859	0,24	0	338,69	52686	0,24	0	338,69
ST loan on Total Assets	827	0,033	0	0,722	51859	0,06	0	237,10	52686	0,05	0	237,10
LT loan on Total Assets	827	0,082	0	2,053	51859	0,19	0	159,50	52686	0,19	0	159,50
Tot. Mortgages on Tot. Assets	827	0,015	0	1,005	51859	0,04	0	16,65	52686	0,04	0	16,65
Growth (turnover)	272	2,146	-36,647	126,177	19105	0,23	-7387	9017	19377	0,26	-7387	9017
Growth (profit)	272	-0,680	-688,917	341,667	19105	-0,44	-4898	5472	19377	-0,44	-4897,50	5472

Table 3: Summary statistics

3.3.2 Correlation matrix

Table 4 provides the results of the correlation matrix between the independent and the dependent S-PLLC variables used in the multivariate analysis. The matrix represent the correlations in the interdependence of the data sample. First, the loan policy for the starters is merely disadvantageous at the first sight. The loans ($\rho = -0.0214$ for the long term and $\rho = -0.0179$ for the short term) correlate negatively with the S-PLLC. This can be caused by the lack of track record or the reliance from the financial institutions. In contrast, the negative mortgage correlation ($\rho = -0.0045$) disproves the finding. The multivariate analysis examines more in detail. Second, the turnover ($\rho = -0.0023$) and the profit margins ($\rho = -0.0014$) correlate equally slightly negative which could confirm the proposition by the lack of investing opportunities. Third, the subsidies are surprisingly slightly negative (capital subsidies $\rho = -0.0015$) which is in disagreement for the numerous governmental subsidy programs tailored for the start-ups.

Finally, the correlation between the S-PLLC and the firm with a bookkeeper is as expectedly positive ($\rho = 0.0037$). With the law modification and the introduction of the new legal form, every starter was strongly advised to have a professional bookkeeper. The positive relationship suggest that Starters have adopted the advice. The independent variable initial capital has the strongest negative correlation ($\rho = -0.3655$). This due to the fact starters can establish private liability company from one euro with a theoretical maximum of EUR 18,549. As seen before, 29 Starters exceed the maximal initial capital with a maximum of EUR 50,000.

In the next chapter three main hypotheses are discussed concern the loan, the firm growth and the subsidy policies for the S-PLLC comparing the standard PLLC.

	S-PLLC	Total Mortgages	Long Term Loan	Short Term Loan	Total Assets	Profit	Capital Subs.	Interest Subs.	Turnover	Age	Size	Initial Capital	Tot. Loan on Tot. Assets	ST loan on Tot. Assets	LT loan on Tot. Assets	Tot. Mortgages on Tot. Assets	Growth (turnover)	Growth (profit)	Bookkeeper
S-PLLC	1,00																		
Total Mortgages	-0.0045	1,00																	
Long Term Loan	-0.0214	0.1712	1,00																
Short Term Loan	-0.0179	0.0763	0.2567	1,00															
Total Assets	-0.0132	0.7244	0.4462	0.1959	1,00														
Profit	-0.0014	0.0373	0.0052	0.0114	0.3356	1,00													
Capital Subs.	-0.0015	0.0030	0.0076	0.0011	0.0824	0.0003	1,00												
Interest Subs.	-0.0014	0.0092	0.0170	0.0062	0.0082	-0.0000	-0.0002	1,00											
Turnover	-0.0023	-0.0155	0.0109	0.0124	0.3015	0.9952	-0.0002	0.0002	1,00										
Age	-0.0067	-0.0022	0.0359	0.0220	-0.0023	-0.0103	0.0050	0.0085	-0.0092	1,00									
Size	-0.0264	-0.0029	0.0267	0.0686	0.0260	-0.0115	0.0009	0.0139	-0.0083	0.0091	1,00								
Initial Capital	-0.3655	0.0098	0.0570	0.0559	0.0277	-0.0023	-0.0001	0.0356	0.0002	0.0159	0.0897	1,00							
Tot. Loan on Tot. Assets	-0.0060	0.0035	0.0322	0.0217	0.0019	-0.0033	-0.0009	0.0004	-0.0030	0.0132	0.0031	0.0051	1,00						
ST loan on Tot. Assets	-0.0018	-0.0005	-0.0013	0.0123	-0.0022	-0.0012	-0.0004	-0.0001	-0.0015	0.0093	-0.0019	-0.0017	0.9779	1,00					
LT loan on Tot. Assets	-0.0154	0.0131	0.1117	0.0411	0.0119	-0.0078	-0.0020	0.0015	-0.0062	0.0203	0.0153	0.0216	0.8413	0.7095	1,00				
Tot. Mortgag. on Tot. Assets	-0.0157	0.1426	0.1763	0.0937	0.0571	-0.0028	-0.0010	0.0122	-0.0004	0.0363	0.0162	0.0441	0.0346	0.0044	0.1052	1,00			
Growth (turnover)	0.0017	-0.0004	-0.0015	0.0001	-0.0008	-0.0011	-0.0000	-0.0001	-0.0013	0.0192	0.0078	-0.0052	0.0004	-0.0001	0.0017	0.0037	1,00		
Growth (profit)	-0.0004	0.0005	0.0016	0.0010	0.0017	0.0018	0.0093	-0.0001	0.0022	0.0008	-0.0006	-0.0074	-0.0018	-0.0001	-0.0058	0.0018	0.1524	1,00	
Bookkeeper	0.0037	-0.0033	0.0171	-0.0015	0.0033	-0.0000	-0.0036	0.0071	0.0026	-0.0177	0.0187	0.0216	0.0133	0.0123	0.0129	-0.0028	-0.0013	0.0072	1,00

Table 4: Correlation Matrix

4 Multivariate analysis

In this section the hypotheses will be statistically tested on the significance level. Therefore linear regression was adopted to provide results between independent and dependent variables, and improved by the control variables age, size, year and the industry code. The control variables were consistently used in all the hypotheses to approach more precisely the representative statistical significance.

4.1 Hypothesis 1

Using the regression in Stata, the willingness to lend to the entrepreneur was analysed by loan policies at the financial institutions. To scale more carefully the long term and short term lending, the loans were divided by the total assets of the company. This fracture allows observe more carefully the difference between the S-PLLC and the standard set-up PLLC.

As seen in the regression output a S-PLLC receive definitely less long term loans comparing to the PLLC. This variable is strongly significant with 52,686 observations. On average a S-PLLC receive EUR 35,007 less long term loans in absolute terms¹³ and after rescaling, relatively, the total assets are financed with 9.40% less long term loans compared to a PLLC. The long term loan has a significant influence in absolute and relative terms upon the S-PLLC.

The short term lending and the supplier credit have a significant difference as well comparing the PLLC. On average a S-PLLC obtains EUR 5,132 less in short term loan¹⁴. After rescaling the regression variable, the starter finance his total assets with 1.75% less supplier credit and short term bank loans. The regression outputs for long term and short term loans are displayed respectively in table 5 and table 6. The impact is attenuated compared to the long term loans. The age of the entrepreneurial company has positively significantly effect for receiving short term loans. The suppliers and short term lenders want to be secured the starter would pay back the debt. Outside funders have more trust in companies existing for more than one year on the market and which are largely sized. After a few years-of-existing, the starter develops a credit line reputation and establish more confidence within the short term lenders. The size of the firm has significant outcome in the regression for absolute terms and after the rescaling as well.

¹³ See appendix 6.1.1

¹⁴ See appendix 6.1.2

The presence of a bookkeeper depresses the effect in the loan policy. Starters with the external bookkeeper have more potential receiving a long term loan to finance the total assets, although in general they still receive less¹⁵.

The last regression output represents the total loan, consisting as aggregate of the long term and short term loans, divided by the total assets. On average a Starter entrepreneurial firm have 11.15% loans less financing the total assets than a standard PLLC firm. The outputs is shown in table 7. These three loan regressions yields confirm the study made by the NSZ. In the study of NSZ, the comparison between the PLLC and S-PLLC and their collateral was only based on the loans without regard to the varying industry categories. In the currently available data the variable NACE-BEL codes are added as supplementary control variable. This control variable helps to identify which industries are facing problems due to the market regardless if they are S-PLLC of large and well-established PLLC.

The entrepreneurial activity with industry NACE-BEL code 70 which contributes as the one of the largest start-up activity segment. The branch represents "Consultancy and advisory offices" and is used as comparison dummy control variable. In absolute loan terms all but industry code 64 "Financial services" and 68 "Exploitation of real estate and sales" receive less short and long term loans. This could be possible due the collateral the companies in those branches can offer to the outside financier. The majority of the industries did not show statistical significance concerning the loan policies. Yet, the aggregate industry test had shown that industry branches have statistical impact concerning the loan policy.

The next comparison was made with the assumption to the companies, which are involved in loans regardless the period. How does the legal form affect the collateral. For this regression output firms without long or short term loans were excluded. This led to the 21,548 aggregate firm-year observations. The role of the independent variable here was to examine if the S-PLLCs have more secured loans than the regular PLLCs, since the correlation was negative. Unfortunately, the results were not statistically significant, which leads to the improbability and the regression do not reflect the representativeness¹⁶.

¹⁵ See appendix 6.1.3

¹⁶ See appendix 6.1.4

Table 5: Long term loan divided total assets regression output.

Linear Regression

Number of obs = 52686

F(48, 52771) = 28,48

Prob > F = 0

R-squared = 0,0033

Root MSE = 0,98411

LT Loan on Tot. Assets	Robust		t	P>t	[95% Conf.	Interval]
	Coef.	Std. Err.				
S-PLLC	-0,09404	0,008196	-11,47	0,00***	-0,1101	-0,077972
Size	0,01137	0,003373	3,37	0,001***	0,0047588	0,0179809
Age	0,0369	0,005709	6,46	0,00***	0,0257092	0,04809
Year 2010	0,029132	0,01227	2,37	0,018**	0,0050833	0,0531815
Year 2011	0,016861	0,009673	1,74	0,081*	-0,0020993	0,0358205
Industry						

17

* Significant at 0.1, ** Significant at 0.05, ***Significant at 0.01.

Table 6: Short term loan on total asset regression output.

Linear Regression

Number of obs = 52686

F(48, 52771) = 19,3

Prob > F = 0

R-squared = 0,0005

Root MSE = 1,3011

ST Loan on Tot. Asset	Robust		t	P>t	[95% Conf.	Interval]
	Coef.	Std. Err.				
S-PLLC	-0,01752	0,00408	-4,30	0,00***	-0,02552	-0,00953
Size	0,00078	0,00171	0,46	0,65	-0,00257	0,00414
Age	0,02872	0,01185	2,42	0,015**	0,00550	0,05194
Year 2010	0,01810	0,00760	2,38	0,017**	0,00321	0,03299
Year 2011	0,00107	0,00320	0,34	0,74	-0,00520	0,00735
Industry						

* Significant at 0.1, ** Significant at 0.05, *** Significant at 0.01.

Table 7: Aggregate loan on total asset regression output.

Linear Regression

Number of obs = 52686

F(48, 52771) = 26,06

Prob > F = 0

R-squared = 0,0016

Root MSE = 1,8949

Tot. Loan on Tot. Assets	Robust		t	P>t	[95% Conf.	Interval]
	Coef.	Std. Err.				
S-PLLC	-.1115572	.0104608	-10.66	0.000***	-.1320605	-.0910539
Size	.0121529	.0039075	3.11	0.002***	.0044942	.0198116
Age	.0656187	.0157993	4.15	0.000***	.0346519	.0965855
Year 2010	.0472354	.015549	3.04	0.002***	.0167593	.0777116
Year 2011	.0179334	.0104548	1.72	0.086*	-.0025581	.038425
Industry						

* Significant at 0.1, ** Significant at 0.05, *** Significant at 0.01.

¹⁷ The industry dummies are not broken down in the displayed regression outputs.

The three different methods described the loan policy for a start-up confirmed that in general a Starter Limited Liability Company receive less loans regardless the loan term. In relative terms, the starters finance total assets less with the outside finance. Age has significantly influence and reveal that years-of-experience influence the loan policy. For the industry control variable mixed results were found. Industry branches whose companies possess more collateral are perceived to finance more total assets with the bank loans. The firm size has a positive and significant effect on the long term loan policy supporting the previous finding on survival (cf. Evans, 1987). The use of bookkeeper decreases the discrepancy between the S-PLLC the standard limited liability company in the loan policy. Therefore the use of a bookkeeper is advised for the starters. The results of the first hypothesis are totally in line with the study set up by the NSZ.

4.2 Hypothesis 2

For the second hypothesis the variable “growth” was created which is composed as deduction of turnovers of two sequencing years, as the numerator and divided by the turnover of the latest year. The observations for the growth variable lowered due to the absence of additional year-firm data.

In general, a S-PLLC has statistically significant less EUR 7,156 of turnover than the standard PLLC, although it does not impact the firms growth¹⁸. Starter firms have not significant different firm growth rate as the PLLCs. As result, the growth cannot be statistically measured in the available sample. The turnover regression outcome is summarized in table 8.

¹⁸ See appendix 6.1.5

Table 8: Turnover regression output.

Linear Regression		Number of obs = 52686 F(48, 52771) = 58,29 Prob > F = 0 R-squared = 0,0036 Root MSE = 3.0e+05				
Turnover	Robust		t	P>t	[95% Conf.	Interval]
	Coef.	Std. Err.				
S-PLLC	-7156,01	1697,26	-4,22	0,00***	-10482,65	-3829,36
Size	1369,29	619,13	2,21	0,027**	155,79	2582,78
Age	-757,78	2128,88	-0,36	0,72	-4930,41	3414,84
Year 2010	-8608,01	4468,00	-1,93	0,054*	-17365,33	149,32
Year 2011	-1319,55	2743,55	-0,48	0,63	-6696,93	4057,84
Industry						

* Significant at 0.1, ** Significant at 0.05, *** Significant at 0.01.

The growth outcomes could positively impact the starters, although there is no statistical evidence. The growth rate can also be expressed by the profit margin growth the two sequencing years. However, as with the turnover firm growth ratio, the regression output was not binding in terms of statistical significance¹⁹. To conclude, Hypothesis 2 cannot be examined in the currently available sample.

A S-PLLCs have indeed less turnover and less profit (EUR 3,984 ceteris paribus with statistical significance) compared to the control group but the firm growth rate for both independent variables does not vary. As described above, the growth rate using the profit margin can be biased by the fact the starters have to invest 25% of the profit margin as reserve to increase the collateral capital.

4.3 Hypothesis 3

The effect from the introduction of the S-PLLC by the government is to stimulate the Belgian entrepreneurial activity and lower the entry barriers. This idea has been strengthened by the subsidy programs for the starters. The subsidies aim to help the starters being competitive and promote the entire legal form. The starter subsidy programs are described in section 2.4.

Surprisingly, the regression analysis has pointed out the controversy of the expectations and the output summary is displayed in table 9.

¹⁹ See appendix 6.1.6

Table 9: Capital subsidies regression output.

Linear Regression		Number of obs = 52686				
		F(48, 52771) = 1,55				
		Prob > F = 0,0085				
		R-squared = 0,0121				
		Root MSE = 89769				
Capital Subs.	Robust		t	P>t	[95% Conf.	Interval]
	Coef.	Std. Err.				
S-PLLC	-1501,767	772,362	-1.94	0.052*	-3015,602	12,069
Size	139,667	198,163	0.70	0.481	-248,735	528,069
Age	174,285	528,806	0.33	0.074*	-862,180	1210,750
Year 2010	-961,861	1095,382	-0.88	0.380	-3108,819	1185,098
Year 2011	-271,017	889,132	-0.30	0.761	-2013,723	1471,689
Industry						

*Significant at 0.1, ** Significant at 0.05, *** Significant at 0.01.

This regression is statistically significant. A S-PLLC receive on average EUR 1,501 less capital subsidies. In practice following Audretsch (2004), the entrepreneurial subsidy policy represents a significant challenge since its effectiveness depends appropriate trade-off between the market concentration and the company performance. This argument is strengthened by the Baumol's (1990) distinction between the effective, ineffective, and destructive entrepreneurial activities. The government is not willing to grant the subsidy easily to individual set-up entrepreneur. This is demonstrated in the regression output for the capital subsidies. Only three Starter companies receive capital subsidies. These findings result in two main syntheses. Either, the government use a pick-a-winner strategy to reward the entrepreneurs. Private Limited Liability Companies receive a subsidy after passed the barrier of the firm survival of three to five years²⁰. Either the database Belfirst, where the sample was taken from misses the capital subsidy data. Furthermore, interest subsidy variable is unfilled for the treated S-PLLC's dataset²¹. The absence of the interest subsidies could be affected by previously examined loan policies for the Starter companies.

²⁰ This assumption is strengthened by the control variable age. Age of a company correlates positively with the capital subsidy.

²¹ For the regression output a few changes have been made. The data sample contains missing values for the variable capital and interest subsidy. To have substantial observation output, missing values were replaced. Belfirst, where from the sample is used from, automatically transforms a unfilled values into a missing. This resulted in a small variation for the Starter-firm capital subsidies. The output of the interest subsidies for Starters has only missing values in the dataset. Either, none of the treated Starter entrepreneurs received an interest subsidy. Either, none of the them filled the annual accounts with respect to the interest subsidy section.

Finally, the role of the accountant does not affect the regression output in receiving more capital subsidies. However, this is contradictive in theory since the start-up requires a bookkeeper to put a request for a subsidy. However, the regression output with respect to the bookkeeper could be biased since there is a small variation in capital subsidies for Starter firms.

4.4 Limitations and future Research

In the sample it was found that 29 Starter firms initially invested in enough capital to establish a regular PLLC. Even then, these starters decided to set up a Starter PLLC. As prescribed by the law, all the firms have to declare their legal form on every official document. Conducted from the analyses, this can contribute to the disadvantage for receiving financial external loan from the banks. What drives those entrepreneurs to apply for this type of legal form? This needs to be researched, when the new data will be available from 2012 onwards.

The dataset elaborated for the starters was available for only three years. To be able elaborate the consequences of the law reform and draw conclusions from it, new data sample is strongly required for the Starter companies. This would allow to research the survival rate of the start-ups after five years of potential existence (starting from June 2010) and the conversion rate to the standard private limited liability companies of the existent Starter firms. The survival rate allows to compare the possible financial constraints between the two legal entities. Also, the report on the subsidies should be approached more precisely and the growth rate should be elaborated more, with the additional dataset.

Finally the alternative method to measure the effects can be done using the propensity score matching model. The model consist of treated and control group. The treated group are the Starter-PLLCs and the regular Private Limited Liability Companies. The control group would be applied to distinct the model outcomes. This in sum allows to compare the heterogeneous impact in loan policies, firm growth rate and subsidy policies between the two legal types more accurately. Again, an up-to-date dataset is needed to compose significant matching sample of the treated group.

5 General Conclusion

A lot of research was devoted to the limitations faced by the entrepreneurs, especially the financial constraints. The policy makers have enabled to put the theoretical frameworks, provided by the researchers, into practice due to the decreasing entrepreneurial conjecture. The recent economic financial crisis has caused a new wave of unemployment and challenges for the would-be entrepreneurs. European governmental policies have searched for new crisis alternatives to promote the entrepreneurial activity as long the crisis played the dominant role in the economy. The main law modifications in European countries have led in establishing new legal forms to set up a company. Four examples of these countries were discussed in the research paper. In Belgium, inspired and adapted from the English Limited Companies and the German *Unternehmergesellschaft* (mini-GmbH), the new legal form of a company was created, the Starter-Private Limited Liability Company. The main difference between the start-up preferred standard Private Limited Liability Company and the new legal entity is the financial threshold, which has been lowered significantly and opened access for more starters. However, the S-PLLC has equally its drawbacks, including an informal connotation of being a “Starter”, which is mostly associated with insolvency.

In this research the effects of the loan policy towards the Start-up entrepreneurs were examined. The obstacles the S-PLLCs face with, have been investigated and can be broadly divided into three main categories. First, the outside financial funders have been slightly reluctant to lend capitals to the start-ups, regardless the period. This mainly due to the fact the firms have pledged less collateral (on average EUR 16,317 with statistical significance) than the standard private limited company. The age-of-experience is a preferable key control variable in the loan policy. Banks rely more on the companies, which exist for more than one year and are still active after the surviving barrier of three to five years. Using a bookkeeper seems to diminish the differences of the loan policy between a starter and regular limited liability company.

Second, as a result from the turnover regression, a Starter firm has less turnover on average than a PLLC. This assumption has led to the fact that starters' companies grow slower. However, the growth rate cannot be measured in the study, because the regression outcome is not significant. The growth rate measured by the profit rate has resulted in non-statistical significance as well. The outcome could be biased by the fact that the starter is obligated to put 25% of the profit as reserve to strengthen the collateral capital.

Third, the subsidy policy regression outcome is contradictive to the previously made assumption. Despite the governmental financial aid programs developed by the *Participatiefonds* for set-up companies, the S-PLL companies receive less capital

subsidies. The pick-a-winner strategy the government is using, works contra productive for the encouraging of would-be entrepreneurs, but supportive for those who have been operating for a few years. The interest subsidies were omitted for the starters, which has made not available to test them empirically.

Only one of the three hypotheses is analysed with statistical significance. The loan policy is still being a crucial point for the starters. On one hand the government wants to reduce the entry barrier and let the entrepreneur establish an own entrepreneurial activity with a small amount of resources. On the other hand, the consequence is that the banks are reluctant to trust those entrepreneurs by the lack of collateral. Companies in industry branches as “Financial services” and “Exploitation of real estate and sales” facilitate more trust and receive more loans to finance the total assets and invest in growth opportunities. Part of the recent established Starter companies have become inactive and already left the market. The other two hypotheses cannot be examined in the currently available data. Therefore a new dataset is compulsory over a period 2010-2015.

In general S-PLLC is an optimal solution for the entrepreneurs who want to set up a small sized, easy to access limited liability company without relying on additional external capital funds.

This research matches the study set up by the NSZ, which claims that the loans are the bottleneck for the starters. The major difference in the two studies is in fact that this study is amplified with the presences of the control industry branches variables and the macroeconomic background during the three examined years.

6 Appendices

6.1.1 Appendix 1: Regression output Long Term Loan

Linear Regression

Number of obs = 52686

F(48, 52771) = 37

Prob > F = 0

R-squared = 0,0227

Root MSE = 2,50E+05

Long Term Loan	Coef.	Robust Std.Err.	t	P>t	[95% Conf.	Interval]
S-PLLC	-35007,900	1595,883	-21,940	0,000***	-38135,850	-31879,960
Size	12590,310	1395,081	9,020	0,000***	9855944	15324,690
Age	14992,290	1881,112	7,970	0,000***	11305,300	18679,290
Year 2010	5651,329	3283,955	1,720	0,085*	-785,252	12087,910
Year 2011	4061,016	2439,246	1,660	0,096*	-719,928	8841,960

* Significant at 0.1, ** Significant at 0.05, *** Significant at 0.01.

6.1.2 Appendix 2: Regression output Short Term Loan

Linear Regression

Number of obs = 52686

F(48, 52771) = 32,04

Prob > F = 0

R-squared = 0,013

Root MSE = 4,29E+04

Short Term Loan	Coef.	Robust Std. Err.	t	P>t	[95% Conf.	Interval]
S-PLLC	-5.132.629	2.634.175	-19.48	0.000***	-5648.93	-4.616.328
Size	2.865.834	1.846.883	15.52	0.000***	2.503.843	3.227.824
Age	2.083.191	3.458.882	6.02	0.000***	1.405.247	2.761.135
Year 2010	-8.870.328	5.839.934	-0.15	0.879	-1.233.336	1.055.929
Year 2011	3.047.938	4.099.883	0.74	0.457	-4.987.869	1.108.375
Industry						

* Significant at 0.1, ** Significant at 0.05, *** Significant at 0.01.

6.1.3 Appendix 3: Long term loans with bookkeeper

Linear Regression				Number of obs = 8201		
				F(48, 52771) = 16,56		
				Prob > F = 0,000		
				R-squared = 0,003		
				Root MSE = 1,1726		
Loan w.bookkeeper	Robust		t	P>t	[95% Conf.	Interval]
	Coef.	Std. Err.				
S-PLLC	-.0463556	.0288242	-1.61	0.108	-.1028584	.0101471
Size	.0148926	.0043243	3.44	0.001***	.0064159	.0233694
Age	.0477655	.026443	1.81	0.071*	-.0040695	.0996005
Year 2010	.0261164	.0191327	1.37	0.172	-.0113886	.0636213
Year 2011	.0068978	.0098906	0.70	0.486	-.0124903	.026286
Industry						

* Significant at 0.1, ** Significant at 0.05, *** Significant at 0.01.

6.1.4 Appendix 4: Regression output Mortgages

Linear Regression				Number of obs = 21548		
				F(48, 52771) = 41,96		
				Prob > F = 0		
				R-squared = 0,054		
				Root MSE = 2,11E-01		
Mortgages	Robust		t	P>t	[95% Conf.	Interval]
	Coef.	Std. Err.				
S-PLLC	-0,01170	0,01	-0,99	0,321	-0,03	0,01
Size	0,00000	0,00	-2,52	0,012**	0,00	0,00
Age	0,00202	0,00	0,77	0,440	0,00	0,01
LT loan	0,00000	0,00	8,90	0,000***	0,00	0,00
ST Loan	0,00000	0,00	-0,69	0,490	0,00	0,00
Year 2010	-0,00421	0,01	-0,61	0,540	-0,02	0,01
Year 2011	0,00196	0,00	0,58	0,560	0,00	0,01
Industry						

* Significant at 0.1, ** Significant at 0.05, *** Significant at 0.01.

6.1.5 Appendix 5: Regression firm growth rate using turnover

Linear Regression

Number of obs = 19377

F(48, 52771) = 1,07

Prob > F = 0,3473

R-squared = 0,0034

Root MSE = 1,33E+02

Growth (t)	Coef.	Robust Std. Err.	t	P>t	[95% Conf.	Interval]
S-PLLC	2,040	2,142	0,950	0,341	-2,157	6,238
Size	1,123	0,886	1,270	0,205	-0,613	2,859
Age	7,838	3,319	2,360	0,018**	1,332	14,343
Year 2010	0,000	(omitted)				
Year 2011	5,143	3,303	1,560	0,120	-1,332	11,618
Industry						

* Significant at 0.1, ** Significant at 0.05, *** Significant at 0.01.

6.1.6 Appendix 6: Regression firm growth rate using profit margin

Linear Regression

Number of obs = 19377

F(48, 52771) = 0,85

Prob > F = 0,7602

R-squared = 0,0017

Root MSE = 7,48E+01

Growth (p)	Coef.	Robust Std. Err.	t	P>t	[95% Conf.	Interval]
S-PLLC	0,659	3,073	0,21	0,830	-5,364	6,682
Size	0,159	0,430	0,37	0,712	-0,685	1,002
Age	2,933	1,894	1,55	0,122	-0,780	6,646
Year 2010	0,000	(omitted)				
Year 2011	5,944	2,711	2,19	0,028**	0,631	11,258
Industry						

* Significant at 0.1, ** Significant at 0.05, *** Significant at 0.01.

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FACULTY OF BUSINESS AND ECONOMICS

Naamsetraat 69 bus 3500

3000 LEUVEN, België

tel. + 32 16 32 66 12

fax + 32 16 32 67 91

info@econ.kuleuven.be

www.econ.kuleuven.be

