

Hirsch, Julia; Walz, Uwe

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## The financing dynamics of newly founded firms

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Julia Hirsch – Uwe Walz

# The Financing Dynamics of Newly Founded Firms

SAFE Working Paper No. 153

**SAFE | Sustainable Architecture for Finance in Europe**

A cooperation of the Center for Financial Studies and Goethe University Frankfurt

House of Finance | Goethe University  
Theodor-W.-Adorno-Platz 3 | 60323 Frankfurt am Main

Tel. +49 69 798 34006 | Fax +49 69 798 33910  
[info@safe-frankfurt.de](mailto:info@safe-frankfurt.de) | [www.safe-frankfurt.de](http://www.safe-frankfurt.de)

## Non-Technical Summary

Young businesses and newly founded firms contribute significantly to the dynamics of economic activity and economic growth. Studying these entrepreneurial firms can provide crucial insights into market and industry dynamics and perhaps even into the growth of the aggregate economy. However, significant heterogeneity exists among these entrepreneurial firms, particularly with respect to the dynamics of their decisions and evolution over time.

Hitherto existing literature claims that a shortage of adequate financial resources constrains the growth of entrepreneurial firms. Yet, common understanding of the financing structure of newly founded firms is still rather poor, which is largely due to the lack of adequate data. The focus of empirical analyses of financing structures and financing decisions mainly lies on listed, mature firms or more recently also on small and medium-sized enterprises. In contrast to this literature, we exclusively concentrate on newly born entrepreneurial firms, which face particularly severe informational asymmetries but still are very important for industry and economy-wide dynamics. We aim to investigate not only the initial financing conditions of newly founded entrepreneurial firms, but also its effect on their future financing decisions. By using the convergence concepts from the empirical literature on economic growth, we look into the entire set of financing sources as well as on the implications on the development path of the firms at a very detailed level.

We contrast two opposing views about the financing dynamics of firms. The first strand of literature builds on the idea that initial financing patterns are crucial in some industries because these conditions determine the future development path of the firm. As opposed to this, the second strand of literature perceives any development in a firm's financing conditions as an adjustment toward a unique long-run equilibrium. Whereas the first approach predicts non-convergence or even persistence, the second predicts that the convergence of financing structures prevails. We compare and empirically investigate these opposing views by addressing the following main research questions: Do initial financing patterns matter for the future financing structures of newly founded firms? To what extent do we observe convergence or persistence in the financing patterns over time? What are the implications of initial financing conditions for a firm's growth path?

We address our research questions by analyzing a very broad data set of newly founded firms from the French manufacturing sector that were founded in 2004, 2005, or 2006. These cohorts lead to a sample of 2,456 newly founded firms, for which annual financial reports are available from their founding up to 2013. Thereby, we are able to obtain a very broad and representative sample, which is very well suited to address our research questions.

Our main findings are the following: We find significant heterogeneity in initial financing structures in our sample. Moreover, we find a persistence-cum-convergence pattern. On the one hand, we find the so-called  $\beta$ -convergence: the initial level of the financing variable has a negative effect on the accumulation of this source of financing. For example, a firm that is

initially highly indebted accumulates less debt over time, whereas a firm, which is initially less leveraged accumulates debt with a higher rate of growth. On the other hand, we find that the dispersion of financing structures becomes greater over time (so-called  $\sigma$ -convergence). Hence, our data display patterns of hysteresis, for example, in the aftermath of firm-specific temporary shocks. Finally, we find that initial financing conditions matter for the growth path of the firm.

# The Financing Dynamics of Newly Founded Firms\*

Julia Hirsch<sup>†</sup>

Autonomous University of Queretaro, Mexico

Uwe Walz<sup>‡</sup>

Goethe University, Frankfurt, CFS, and SAFE

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## Abstract

Little evidence exists on the financing decisions of newly founded firms or on the financing dynamics of these firms over their life cycle. We aim to help filling this gap by investigating the financing dynamics of 2,456 French manufacturing firms founded between 2004 and 2006 through their legally required and reported financial statements. Because we observe significant heterogeneity in the financing decision in the firms' founding year, we focus on analyzing whether these differences widen, persist, or converge by using different convergence concepts. We identify a persistence-cum-convergence pattern. We find the existence of  $\beta$ -convergence (implying that e.g. firms with lower initial levels of debt accumulate more debt over time) but not of  $\sigma$ -convergence (i.e. we observe an increase in the cross-sectional dispersion of the financing structure). We also show that the dynamics of financing matter for the growth path of the firms.

*Keywords:* financing decisions, life-cycle, firm growth, newly founded firms

*JEL classification:* D92, G32

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<sup>†</sup>Julia Hirsch, Autonomous University of Queretaro, Mexico, Paseo de las Campanas s/n, Queretaro, Qro, Mexico, E-mail: julia.hirsch@uaq.mx

<sup>‡</sup>Uwe Walz, Dept. of Economics, Theodor-W-Adorno Platz 4, 60323 Frankfurt, Germany, E-mail: uwalz@econ.uni-frankfurt.de.

# 1 Introduction

Young businesses and newly founded firms contribute significantly to the dynamics of economic activity and economic growth (see, e.g., Haltiwanger *et al.* (2013)). Studying these entrepreneurial firms can thus provide crucial insights into market and industry dynamics and perhaps even into the growth of the aggregate economy. However, significant heterogeneity exists among these entrepreneurial firms, particularly with respect to the dynamics of their decisions and evolution over time. Hence, understanding the potential determinants of this heterogeneity is decisive for a better understanding of the role of entrepreneurial firms in the economy.

One of the key inputs in the production process of entrepreneurial firms are financial resources. This circumstance leads to the often claimed conjecture that a shortage of adequate financial resources constrains the growth of entrepreneurial firms (see, e.g., Carpenter and Petersen (2002)). Despite this often claimed bottleneck, our understanding of the financing structure of young firms is still rather poor, which is largely due to the lack of adequate data. The focus of empirical analyses of financing structures and financing decisions mainly lies on listed, mature firms (see, e.g., Frank and Goyal (2003)).

In contrast to this literature, we exclusively concentrate on newly founded firms, hence on firms which are different, not only with respect to their financing decisions in a context of very pronounced informational asymmetries but also with respect to their importance for industry and economy-wide dynamics. We thus contribute to the recent literature which analyzes the financing structure of newly born entrepreneurial firms (see e.g. Robb and Robinson (2012) , Kaplan *et al.* (2009) and Puri and Zarutskie (2012)). Therefore, we aim to investigate not only the initial financing conditions of newly founded entrepreneurial firms, but also the effect of the initial financing structures on their future financing decisions as well as on the overall development path of the firm. This approach aims to draw important policy conclusions, which

will also be crucial for the dynamics of the entire economy. Hanssens *et al.* (2016) also address the dynamics in the debt financing patterns of newly founded firms. In contrast to their analysis of Belgium data, we do not only focus on debt financing but look into the entire set of financing sources as well as on the implications on the development path of the firms. Most importantly, our analysis is different, because we investigate the dynamics of financing patterns at a very detailed level by using the convergence concepts from the empirical literature on economic growth.

We contrast two opposing views about the financing dynamics of firms. The first strand of literature builds on the idea that initial financing patterns are crucial in some industries because these conditions determine the future development path of the firm (see, e.g., Inderst and Mueller (2009) and Hirsch and Walz (2011)). The underlying concept is that firms which initially have a different financing structure are able to invest differently (e.g. in more risky projects calling for more equity in the future) implying persistence in the financing structures.

In contrast, the second strand of the literature perceives any development in a firm's financing conditions as an adjustment toward a unique long-run equilibrium (see, e.g., Mauer and Triantis (1994) and Frank and Goyal (2003)). In this case, the initial financing decisions do not have any effect on the long-run equilibrium: the long-run equilibrium should be similar among similar firms independently from their initial financing decisions.

Whereas the first approach predicts non-convergence or even persistence, the second predicts that the convergence of financing structures prevails. We aim to contrast and empirically investigate these opposing views by addressing the following main research questions: Do initial financing patterns matter for the future financing structures of newly founded firms? To what extent do we observe convergence or persistence in the financing patterns over time? What are the implications of initial financing conditions for a firm's growth path?

We address our research questions by analyzing a very broad data set of newly

founded firms from the French manufacturing sector. We choose firms from three different cohorts: those firms that were founded in 2004, 2005, or 2006. These cohorts lead to a sample of 2,456 newly founded firms. Further, because these years have similar macroeconomic environments, the firms in the sample should be very much alike. We make use of the fact that French firms have to annually report their financial structure.<sup>1</sup> From the reports, we observe the financing structures from their founding up to 2013. Thus, this very broad and representative sample is very well suited to address our research questions.

Our main findings are the following: We find significant heterogeneity in initial financing structures in our sample. Moreover, we find a persistence-cum-convergence pattern. On the one hand, we find the so-called  $\beta$ -convergence: the initial level of the financing variable has a negative effect on the accumulation of this source of financing. For example, a firm that is initially highly indebted accumulates less debt over time, whereas a firm, which is initially less leveraged accumulates debt with a higher rate of growth. On the other hand, we find that the dispersion of financing structures becomes greater over time (so-called  $\sigma$ -convergence). Hence, our data display patterns of hysteresis, for example, in the aftermath of firm-specific temporary shocks. Finally, we find that initial financing conditions matter for the growth path of the firm.

The paper is organized as follows. In the next section we derive our two main hypotheses based on a discussion of the existing literature. In section three, we outline our data set, the institutional set-up as well as some first descriptive statistics on the firms' financing structures. In section 4, we analyze our main hypotheses by using different convergence concepts borrowed from the empirical literature on economic growth. Section 5 concentrates on the relation between initial financing structures and the firms' growth paths. Section 6 concludes.

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<sup>1</sup>Only small single-person firms are excluded from this reporting duty.



## 2 Theoretical framework: persistence versus convergence

In this section, we aim to derive our two main hypotheses, which form the basis for our empirical analysis.

The first hypothesis relates to the huge body of literature on the optimal capital structure of firms, which is one of the main topics in modern corporate finance. The major part of this literature is of a static nature that contrasts two main theories: the (static) trade-off theory and the pecking-order theory (see, e.g., Shyam-Sunder and Myers (1999)). There is mixed evidence for both theories that supports the view that they have predictive power under different circumstances. However, both theories display important shortcomings in explaining key stylized facts (cf. Frank and Goyal (2003)).

These theories and their empirical tests have focused primarily on large corporations in the past. However, the literature has expanded to include the capital structures of small and medium-sized firms. Given the size and associated opaqueness of these firms, asymmetric information issues should make the pecking-order theory (cf. Myers and Majluf (1984)) more relevant. But, the empirical evidence for these types of firms is also mixed. Cole (2013), for example, finds support for the pecking-order theory when analyzing the capital structures of privately held firms in the United States. Cosh and Hughes (1994) support this view with a sample of small and medium-sized UK firms for which they investigate the determinants of external funding for investments. Although the pecking-order theory states that firms should give clear priority to internal funding, Robb and Robinson (2012) show that young firms at their early stage rely more on external funds, especially debt financing. These approaches share the underlying idea that there is - given firm characteristics as well as market and legal circumstances - an optimal debt-equity ratio, which that is independent of previous financing decisions of the firm.

The so-called dynamic trade-off theory supports this idea (see, e.g., Mauer and Triantis (1994)). The main underlying concept of this theory is the recognition of the role of time in the decisions on the optimal capital structure. The construction of multi-period models allows the incorporation of expectations and adjustment costs. By investigating intertemporal shifts in funds, this theory claims that if firms reach their optimal target capital structure immediately, this situation is not necessarily optimal and feasible. Firms might face an adjustment process toward their optimal long-run capital structure. This target debt-equity ratio is typically considered to be fixed and to not hinge on previous financing decisions. Because of the gradual adjustment, firms can remove deviations from the target capital structure over time (cf. Frank and Goyal (2003) for an overview). This view is confirmed by Hanssens *et al.* (2016) who analyze the debt policies of newly founded Belgium firms. Their finding shows that the debt policy in the initial year is a negative, statistically significant determinant of future debt policies.

Based on these considerations, we can derive our first hypothesis, the convergence hypothesis:

**Hypothesis 1 Convergence of financing structures:** *There is a long-run optimal financing structure for a firm. Any short-term deviations from this long-run equilibrium will gradually disappear. Hence, we should observe convergence towards the (unique) long-run optimal financing structure of the firm. The financing structures of firms should become more homogenous over time.*

The other strand of the literature, which that forms the basis for our second hypothesis underlines the importance of initial financing conditions for the long-term development of the firm and its long-term financing structure. Inderst and Mueller (2009) stress the particular conditions in network industries, that is, the network effects and the importance of building up an installed base. They show that initial investment and initial financing structures do matter and do potentially lead to different development paths for young firms. They point to the differences in the financing of US and European VC-backed firms and their different development paths (see Hege

*et al.* (2009) to support their theory). Titman and Tsyplakov (2007) use a dynamic trade-off approach with agency costs, which allows for the dynamic interaction of financing and investment decisions. Firms undertake these decisions under the expectation of a long-run debt-equity target ratio. Initial financing decisions not only have an effect on the investment level dynamics but also on the financing choices along the adjustment process. In that sense, there is also persistence in the financing condition in the dynamic setting. In a similar manner, Sarkar (2011) develops a continuous real option approach in which the pre-expansion capital structure affects investment strategies and hence, the financing conditions toward the expansion financing stage. However, the financing structure of the final expansion stage is determined by factors other than the initial capital structure. Hennessy and Whited (2005) in their dynamic trade-off approach predict hysteresis in debt structures: temporary shocks can lead to divergence of financing structures along the time path.

Furthermore, another strand of the literature – starting with Berger and Udell (1998) – has emphasized the importance of controlling for a firm’s life cycle when investigating its capital structure. Besides the above mentioned papers, which investigate dynamic trade-off approaches with endogenous investments, this is true for a few empirical studies (see, e.g., Cole (2013) and Bulan and Yan (2009)). Furthermore, there is a small number of theoretical papers, which explicitly address the interaction of capital structures over time. These papers show that the expansion-stage capital structure as well as investment decisions and strategies depend on initial ratios of debt-equity financing (see, e.g., Inderst and Mueller (2009)). These papers are closest in spirit to the approaches that model the path-dependence of financing choices over time. The main idea is that in a multi-period set-up initial financing choices affect the strategy and investment path chosen and hence affect the long-run capital structure. Most notably, Hirsch and Walz (2011) lay out a theoretical framework, which explicitly depicts this path-dependence in financing choices. In their paper, the initial financing decision has an effect not only on the adjustment process as in the dynamic trade-off

papers but also on the long-run debt-equity targets. Hence, the decisions on the initial capital structure lead to lasting effects on the long-run capital structure, which are not blurred out by an adjustment process.

Building on this rather small – theoretical as well as empirical – literature that explores the potential path-dependencies in the capital structure over time, we state our second hypothesis, the persistence hypothesis:

**Hypothesis 2 Persistence in financing structures:** *Initial financing conditions matter for the long-term financing structures of the firm as well as for its overall development path. Due to persistence patterns, we should observe little if any convergence. Temporary shocks or initial conditions can prohibit the convergence of financing structures.*

We approach our two hypotheses by employing two concepts from the empirical literature on economic growth:  $\beta$ – and  $\sigma$ –convergence (see, e.g., Young *et al.* (2008)). The  $\beta$ –convergence is most widely used in cross-regional studies (see, e.g., Barro and Sala-i Martin (1992)) and asks whether regions with a lower initial GDP level tend to grow significantly faster than regions with higher initial GDP levels. In our context, this convergence means that firms with lower initial leverage ratios accumulate debt faster than firms with higher initial leverage. We interpret this convergence as a reversion to the mean. The  $\sigma$ –convergence measures the evolution of dispersion over time. In the context of economic growth, it asks whether the dispersion in GDP levels across countries or regions decreases over time or not. In our context,  $\sigma$ –convergence would prevail if the dispersion of the leverage ratios decreases over time. We interpret this convergence as the stronger dispersion measure not in the least due to the fact that  $\beta$ –convergence is a necessary but not sufficient condition for  $\sigma$ –convergence to prevail (see Lichtenberg (1994)).

### 3 The data set

In this section, we describe our data set in detail. Since our data set consists of newly founded firms in France, we also include a thorough discussion on French reporting standards as well as the associated institutional framework.

#### 3.1 Altares data set

Our data is based on the requirement of French legislation that firms must publish their financial statements. This requirement is part of the French commercial code (code de commerce) and applies to all firms, which are a legal entity with limited liability as well as all partnerships (cf. SPAF (2015)). With the exception of individual entrepreneurs (mainly self-employed people in trading and in commerce), this basically covers all French firms. Since we focus our analysis on the manufacturing sector in which individual entrepreneurs are rather rare, we conjecture that this legal requirement covers the full sample of all French firms with the exception of those firms, which intentionally do not report their financial statements in exchange for a fine to be paid to the French authorities.

The financial information reported by the firms is accessible via the Altares database (a subsidiary of Dun & Bradstreet) which is part of the IODS (Insead OEE data services) data platform. The database contains 2,500,000 firms in France and its overseas territories. Given this amount as well as the number of newly founded firms on the platform, we consider it a fairly complete representation of all French firms. The information provided by Altares supports this conjecture (see Altares (2015)).

The Altares database provides the financial statement information in machine-readable format that can be downloaded to a spreadsheet. Besides the information of the financial reports, the Altares database provides further information on the firm such as location, its legal status, the industry to which it belongs, the founding year, the management team as well as the main owners. Furthermore, for some firms the

names of the main lending institutions are provided. The database also contains firms, which reported under the French commercial code but were then liquidated. Finally, the database also states the reasons for liquidation.

### **3.2 French reporting standards**

In France, all firms are required to use the same chart of general ledger accounts; to follow the same accounting rules; and to use standardized formats for the balance sheet, profit and loss statement, and the notes to the financial statements. The requirements are laid down in the General Accounting Plan, which was rewritten in the Comité de la Réglementation Comptable; régulation 99-03 (KPMG (2003)).

In the late 1990s and at the beginning of the 2000s, the French GAAP moved strongly in the direction of the IFRS under pressure from the European Union's seventh directive on the harmonization of national accounting principles with international rules. This change meant that the going concern principle was used as the basis for the French accounting standards at the beginning of the 2000s (see Delvaille (2011)). While this implied change means some important differences with respect to the valuation and reporting of intangible assets and the consolidation of group reports (see Delvaille *et al.* (2005)), it mainly affected larger firms which had been involved in frequent merger activities and not the type of firms in our data set. However, for our purposes, it is important to note that French financial statements are also used for tax purposes implying that one of the underlying principles is to reveal the profitability of the firms to fairly tax them. Therefore, there seems to be some understatement of asset values compared to international standards in some specific cases (see Delvaille *et al.* (2005)). However, these cases do not play an important role in our data sample (see, e.g., Kvaal and Nobes (2012)) and neither any important changes in the accounting rules nor any other changes, which affect the firms in our data set unevenly, take place during our observation period. Hence, we conjecture that there are no distortions in either the cross section of our analysis or the time series.

### 3.3 Our sample

Our data sample covers all firms in the Altares database, which were founded in either 2004, 2005, or 2006 and that had a balance sheet available in the year of the founding or the subsequent year. Thereby, we focus on the manufacturing sector in which firms have French activities classification codes (NAF II) between 20 and 29. We download firm characteristics as well as all balance sheets from the founding year onward until 2013. We allow for at most one year in which there is no balance sheet information available for the particular firm. These conditions result in a sample of 2,607 firms. We also include those firms, which had been liquidated as of 2013. This procedure increases our sample to 2,620 firms. For missing balance sheet data in a given year, we use the average between the year before and the year after. We use this procedure for 683 firm-year observations. For the remaining observations, we rely on a 12-month reporting window.<sup>2</sup> In a further step, we calculate all of the financing decision ratios: share capital to total assets, total debt to total assets, long-term debt to total assets, loans from credit institutions to total assets, and trade credit to total assets. In order to avoid extreme outliers (which are mainly due to very pronounced negative earnings), we drop all firms for which one of these ratios exceeds at least once a level of two. Hence, our final sample comprises 2,456 firms.

For all these firms, we have detailed information on the balance sheets and the profit and loss statements for each respective year. Besides industry characteristics, we have information on the legal form of the firm as well as on the number of employees and its detailed location.

Table 1 describes the main variables we use in the analysis.

Insert table 1 about here

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<sup>2</sup>Only in a few cases do balance sheets deviate from the 12month reporting window and have a length of 3 to 21 months. In the year after the founding year we even have two (three) firms with balance sheet lengths of 1 and 24 months, respectively.

### 3.4 Descriptive statistics

Despite the fact that we consider only newly founded firms in one country, we observe heterogeneity in our sample (see table 2). Most of our firms are quite small in that the sales and total assets of the median firm one year after founding are 300,000 and 209,000 euros, respectively. However, some quite large firms create a discrepancy between the mean and the median firms in terms of total assets and sales. At the aggregate level, this pattern is persistent over the years: we observe the same pattern in year seven as well. Therefore, we investigate whether this persistence also prevails at the firm level and what it means for the financing structures of the firms. Despite the fact that we are using newly founded firms, they are present in the market - mostly right from the beginning. Only 40 of them do not have sales throughout the observation period.

Insert table 2 about here

With respect to the financing and profitability ratios, we observe much less skewness in our data set. Despite the heterogeneity between the firms with respect to the liquidity and fixed asset ratios as well as to the profitability ratios, the mean and median numbers are similar. This is not only true one year after founding but also seven years later. With respect to profitability, we observe a significant portion of firms with negative net income (479) or negative operative income (540 observations).

Most of our firms have few employees, even seven years after the founding: a substantial fraction represents the typical owner-manager firm. Most of our firms are in the NAF II 24 and 25 segments that represent the metal-processing and machine-tool industries. However, while there are fewer numbers of firms in the chemical and pharmaceutical industries (codes 20 and 21) and the electronics and electrical industries (codes 26 and 27), we have a significant number of firms in the rubber and plastic industries (codes 22 and 23) as well as in the equipment and automobile industries



(codes 28 and 29). More than half of our sample consists of limited-liability firms, while 538 are share firms which allows for more diverse and flexible ownership.

The firms' founding years are rather evenly distributed over the 2004 to 2006 period. Thus, firms are spread across the whole country. Overall, we can summarize our statistics by stating that our sample comprises mostly small firms dispersed over a variety of manufacturing industries across France. The firms tend to grow without necessarily improving their profitability. We find that firms which grow fast end up with more employees. Though, many firms have - even after seven years - only a few if any employees.

Insert table 3 about here

Table 3 indicates that the main correlation structure exists between the lagged variables (e.g., sales-to-total assets). Furthermore, we observe significant correlation coefficients (e.g., between the three founding years). Beyond these high correlations, we observe very rarely large correlation coefficients.

## 4 Empirical results

Our analysis comprises three different steps. In the first step, we investigate the initial financing decisions of the firms right after their founding. By differentiating along various dimensions, we aim to identify the main underlying patterns by comparing the means of the financing variables for different groups of firms.

Then, we analyze the evolution of the financing decisions across our observation period. We distinguish between the two concepts of convergence:  $\beta$ - and  $\sigma$ -convergence. In the second step, we analyze the weaker concept:  $\beta$ -convergence (see Lichtenberg (1994)). By regressing the respective growth rates on their initial levels, we test for the occurrence of  $\beta$ -convergence. We undertake these tests in a multivariate setting

including control variables. Furthermore, we investigate the  $\beta$ -convergence hypothesis further by undertaking a dynamic panel analysis.

The third step consists of our analysis of  $\sigma$ -convergence. In this step, we investigate the development of the coefficient of variation over time for the respective financial sources. In order to take the changes in the mean into account, we use the coefficient of variation rather than the plain variance measure. Then, we compare the coefficient of variation over time to see if there are significant changes. In case we find a significant drop, we interpret it as an indication of  $\sigma$ -convergence.

## 4.1 Initial financing decisions

In our first step, we analyze the cross-sectional variation in the financing decisions of our newly founded firms the year after their founding. In Panel A of Table 4, we report the overall financing structure of the newly founded firms. The main findings are twofold. First, the main financing source is debt. Almost three quarters of the entire balance sheet is financed with debt (total debt to total assets: mean = 73 percent, median = 75 percent). Only about 15 percent of the firms' total assets in the first period are financed by equity. Second, the role of bank lending in total debt financing is rather small: only 25 (15) percent of the total debt financing of the mean (median) firm stems from credit institutions. The main source of debt financing stems from trade credit from other firms, which amounts to 34(28) percent of the total.

Insert table 4 about here

Panel B of Table 4 contains a comparison across industries that shows that industry 1 (chemical and pharmaceutical industries) relies more on equity financing and less on bank lending. The opposite is true in industries 2 (rubber and plastic industry) and 3 (metal-processing and machine-tool industry). This is an indication that there are industry effects, which matter for the financing and capital structure decisions of

the newly founded firms. Trade credit seems to play a rather homogenous role in all industries. However, with some variation, retained profits play a rather minor role in the financing of the young firms. It should be noted that the retained earnings always stem from one year later, that is, in Table 4 from the year after the founding.

As the penultimate step, we divide the firms according to their initial size (Panel C of Table 4). The table shows that the smallest firms rely the most heavily on equity while the larger firms rely more heavily on debt. Despite this relative difference, it is important to underline that even the smallest firms in our sample rely on debt instruments for the financing of two thirds of their assets and rely on bank loans for only 16 percent.

In addition to these tabulated findings, we examine the effects of location, legal form as well as the founding year. With respect to location, the only significant pattern is that firms in the French capital of Paris are significantly better endowed with equity compared to firms in the rest of the country. With respect to founding years, we do not detect any differences in the financing structures across the founding years. With respect to legal forms it turns out that share firms and simplified joint-stock firms are significantly more equity financed. This observation is reasonable since by construction share firms and simplified joint-stock firms have better access to outside equity. We take all these effects in our subsequent analysis into account by including these variables as controls in our regressions.

## **4.2 The evolution of financing**

In this step, we analyze the evolution of the financing patterns of our firms across time. Our main question is whether initial differences persist or whether financing patterns converge over time.

To answer this question, we subdivide the firms into four groups according to their initial financing decisions. Using the first-year decision as the basis, we then rank their

growth by which percentile they fall into: 25, 50, or 75 for a given ratio. Due to our chosen procedure, firms may end up in different groups for each financing instrument. For example, a firm which has initially very little share capital on its balance sheet is in the first group in Panel A of Table 5, but since it has a pronounced level of debt it might be (and is most likely to be) placed in group 4 in Panel B. However, over time, the groups' composition does not change.

Insert table 5 about here

The clearest picture emerges from a comparison of groups 1 and 4 in the respective financing categories (see Panels A-F, table 5). In all panels, except Panel F, which delineates the evolution of retained earnings, we observe the same overall pattern. Whereas the differences in the importance of the respective financing between the mean firm in groups 1 and 4 diminishes over the seven year period, these differences are still statistically different from zero at the 1 percent significance level in all cases. Even if this pattern is less pronounced, it also prevails for the mean firm in groups 2 and 3. They start with the second and third lowest mean in year one and end up as such in year seven. However, the difference in the respective ratios becomes smaller despite being statistically different from zero even in year seven. This pattern can be best illustrated with Panel B that displays the level of total debt over total assets. In year one the means in the four groups are very distinct, ranging from 0.42 to 1. In year seven the order in the means of the four groups remains intact, and the means shrink. Whereas total debt becomes more important for firms in group 1, the total-debt-to-total-asset ratios diminish for the mean firms in groups 2, 3, and 4. Despite this evolution the differences between the mean firms of the four groups are still sizable and statistically different from zero. For instance, the difference between groups 1 and 4 remains at a rather high level of 0.27. Hence, we find strong support for the persistence-cum-convergence hypothesis.

Because we are considering ratios, there could be two drivers behind the changes. This is most visible in Panel A, since share capital is typically a rather slow moving

variable. Whereas in group 1, share capital grows faster than the total assets, this growth leads to a rise in the share-capital-to-total-assets ratio, the opposite is true in group 4: total assets grow whereas share capital remains unchanged.

With retained earnings the picture is slightly different compared to the persistence-cum-convergence pattern in Panels A-E. In this case, strong persistence prevails, we even observe divergence, that is, firms with initially higher retained earnings have absolutely as well as relatively more retained earnings afterwards.

In order to further back-up our first findings in the descriptive statistics, we investigate the impact of the initial financing patterns on subsequent financing decisions in the cross-section. Most importantly we aim to investigate the question of convergence and persistence in more detail. With respect to convergence we carefully distinguish between  $\beta$ - and  $\sigma$ -convergence. We start with the former.

### 4.3 $\beta$ -convergence

In Table 6, we regress the growth rates of the financing variables on the initial levels. Therefore, we test for the  $\beta$ -convergence. A negative coefficient would indicate  $\beta$ -convergence, whereas a positive coefficient would indicate a form of  $\beta$ -divergence. We use initial size, legal form, location, industry, and year of creation as a set of control variables. Furthermore, we control for the initial fixed-asset ratio as a potential driver of debt capacity.

Insert table 6 about here

In Table 6, we use the growth rates of the financing variables as endogenous variables. Because our financing processes do not – in contrast to the economic growth path of economic activity (say GDP) – follow a geometric growth path, we use the level of the initial financing variable rather than the log of the initial variable. We find evidence of  $\beta$ -convergence. All initial financing variables have a negative regression coefficient in the growth equations, and all are significant at least at the 5 percent level,

except for the retained earnings-variable, which lacks significance. This significance means that firms with lower initial levels in a financing variable experience a higher growth rate over the seven years than firms with higher initial financing levels. Thus, the regressions show – with the exception of retained earnings – a  $\beta$ –convergence in the financing decision variables over time. With respect to the control variables, we find no real structural patterns. Hence, overall our cross-sectional analysis confirms the existence of  $\beta$ –convergence and the fact that mean reversion in the financing patterns prevails.

In order to analyze this pattern in more detail, we use the full set of information and pursue a dynamic panel regression. This regression examines in more detail the mean ( $\beta$  convergence) relative to persistence. We use the Arellano Bond estimation technique (see Arellano and Bond (1991)). This Arellano-Bond regression allows us to use technique provides significantly more information on the time structure of the dynamics of the financing decisions of our newly founded firms.

Insert table 7 about here

This approach does not include time-invariant variables but takes the autoregressive structure of the panel data set into account. Thus, we are able to take the potential endogeneity of our independent variables into consideration (see for a discussion in the context of economic growth processes, Próchniak and Witkowski (2013)).

By construction, the unobserved panel-level effects are correlated with the lagged dependent variables, which make the standard estimators inconsistent. Arellano and Bond (1991) derive a consistent generalized method of moments (GMM) estimator for the parameters of this model. This estimator is, in particular, applicable to samples with many observational groups but only a few observation dates (small T, large N samples). The reasoning is that the independent variable might be explained by its own lagged variables as well as by other right-hand variables both of which are non-exogenous. To overcome this endogeneity problem, we instrument the independent

variables with their lagged variables as well. We employ our main time-variant variables as controls. In particular, we approximate size with sales, the firm's market insertion and strategy with sales to total assets, profitability with net income to total assets, and the degree of collateralization by fixed assets over total assets. Furthermore, we use various lag structures. We should note that due to the moving autoregressive structure of the Arellano-Bond estimator (i.e. the respective lags are employed each year), longer lags lead to a smaller sample, since more years of observation are dropped from the regression.

The main result from our estimations in Panels A-F is that there is slow convergence in the dynamics of the financing decisions of the firms. The estimated coefficients for the first lag of the dependent variable are smaller than one, which indicates that our results are in line with the concept of dynamic stability. By using the recursive structure of our dynamic panel estimation, we analyze the effect of the initial financing variable in year one on the level of the financing variable in year seven by taking the coefficient of the lagged variable to the power of six. For example, this estimation shows that the effect of the initial level of the total-debt-to-total-assets variable in year one on the total-debt-to-total-assets variable is  $0.83^6 = 0.32$  (see Table 7, Panel B, specification 1), which is a number that supports our previous findings (see Table 6, Panel A). The estimated coefficient in all of the specifications of Panels A-E is significantly different from zero but sometimes also much smaller than one (e.g. the corresponding number resulting from panel A is  $0.47^6 = 0.11$ ). Overall, we can interpret the fact that the coefficient for the first lag of the endogenous variable ( $\alpha$ ) is one, as an indication of complete persistence. On the other hand,  $(1 - \alpha)$  measures the speed of convergence: the higher the  $\alpha$ , the slower the convergence process is.

Further, the second and third lags of the dependent variable are either not statistically significant or have a positive coefficient, which indicates that the process of  $\beta$ -convergence is not reinforced by a higher order autoregressive process. In Panel F of Table 6 our findings are less robust. In addition, the coefficients are smaller. This is not

surprising and supports our previous findings. First, the retained earnings are more of a flow variable than the other financing variables. Second, only the retention part is an explicit choice variable. The gross earnings in contrast reflect the profitability of the firm, which is a quite noisy measure in the context of newly founded firms.

The control variables show the following results. First, our sales over total assets variable has a positive effect on the accumulation of share capital but a negative one on the accumulation of debt. This means that a higher market insertion leads to more accumulation of share capital but less debt. These coefficients are all significantly different from zero. Second, profitability reduces financing needs and hence has a consistently negative and statistically significant effect on the evolution of all financing variables. Third, fixed assets over total assets, which we use as a proxy for collateralization, has the expected positive effect on the accumulation of bank financing and long-term debt. It has a negative effect on the choice of trade credit as an alternative financing option to bank debt. Surprisingly, it leads to an accumulation of share capital. However, the second lag of the fixed asset ratio on share capital is negative but of a smaller magnitude. This magnitude shows that the effect of this variable is not linear.

#### 4.4 $\sigma$ -convergence

The  $\sigma$ -convergence prevails if the variance of a variable, in our case the financing variables, declines over time (see Quah (1993)). The  $\beta$ -convergence is a necessary but not sufficient condition for the  $\sigma$ -convergence to prevail (see Young *et al.* (2008)), that is, our findings of  $\beta$ -convergence in the dimensions of the financing patterns of our firms does not necessarily lead to  $\sigma$ -convergence.

There are various ways to measure  $\sigma$ -convergence (see Lichtenberg (1994)). Since we investigate economic processes, which do not follow a geometric growth path, we rule out the use of evolution in the variance of the natural log of the respective variable. In order to take changes in the level into account, we use the coefficient of variation



rather than the plain variance.

Table 8 displays our findings. We report the results of a linear regression of time on the coefficient of variation. A significantly positive coefficient means that there is  $\sigma$ -divergence, while a significantly negative coefficient means that the firms become more similar and  $\sigma$ -convergence exists. If we do not observe any significance, then this means that there are no changes across time with respect to the dispersion of the firms.

As mentioned in hypothesis 1, we conjecture that there is an optimal financing structure for a firm in the long run but that deviations from this optimal financing structure may exist in the short run. Therefore, we should observe  $\sigma$ -convergence over time. Nevertheless, the optimal financing structure might not be the same for all firms in our sample despite the fact that all firms are young and in the manufacturing sector. Therefore, we also group the firms with respect to different exogenous aspects, which might have an effect on their optimal long-run financing structure. We use our five industry categories, our four size categories as well as the location of the firm. With respect to the last variable and on the basis of the statistics, we only differentiate between the Paris region and the rest of France.

Table 8 shows that the coefficient for our time variable is positive and significant in virtually all cases with three important exceptions: i) the coefficient of the retained earnings variable is negative and significant in the majority of cases; ii) the trade-credit-to-total-assets variable has some positive and significant coefficients but the majority are not significant; and iii) in the Paris region we observe negative and significant coefficients for the loan-to-total-assets variable as well as the trade-credit-to-total assets variable. Yet, all other variables are not significant.<sup>3</sup> These findings show that  $\sigma$ -convergence does not exist with exception of the retained earnings variable. We even observe  $\sigma$ -divergence in many cases which shows that the variation of financing structures across firms increases over time. Rather than seeing a more common financing

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<sup>3</sup>If we only use the first six years after the founding in order to ensure that we have also data in the last year for the youngest firms, our results remain qualitatively unchanged but we lose a lot of significance due to the very small number of observations.

structure across the different firms, their financing structures diverge to some extent. Thus, we can reject hypothesis 1 about the existence of an optimal financing structure for a firm and the adjustment process to this financing structure over time.<sup>4</sup>

Insert table 8 about here

Together, our findings for  $\beta$ -convergence and  $\sigma$ -divergence show a convergence-cum-dispersion pattern in our data set. While there is reversion to the mean, we observe more dispersion in the financing structures in the end.

## 5 Initial financing decisions and firm growth

Our previous analysis shows that initial financing structures have an effect on the dynamics of the financing decisions while the dispersion of financing structures across the firms increases. The obvious question resulting from these findings is: Do the dynamics of the financing structures spill over to the development path of the firms per se? Does the initial financing condition matter for the development of the firm, most notably for its growth path?

Given the fact that profitability measures are quite noisy for young firms because they rely heavily on investment decisions, which might reduce short-term profitability at the expense of long-term profits, we rely mainly on sales and asset growth.

Insert table 9 about here

In order to get a first impression on the effect of initial financing conditions on the firms' growth path, we divide the firms into four groups according to the respective initial levels of the financing variables. Table 9 indicates that at least for the growth

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<sup>4</sup>We should note that the usage of the variance measure (based on the levels of the respective variables) depicts a slightly different picture: we observe more  $\sigma$ -convergence. We interpret these findings such that while the overall variation has diminished the dispersion relative to the mean has increased. Since we consider the latter to be the economically more relevant one, we focus our arguments and interpretation on the results of the coefficient of variation.

of total assets, a pattern exists that shows the relationship between initial financing decisions and asset growth. Once again, groups 1 and 4 indicate that firms with low initial levels of share capital grow significantly slower than the mean firm in the group with high initial share capital. The reverse is true with respect to the total-debt-to-total-asset variable and the bank-loan variable. Firms with low levels of total debt financing to total assets and a low bank-loan proportion have a significantly higher growth rate than firms in the group with the highest level of total debt and bank debt. The effects are not only statistically significant but also economically meaningful. With respect to sales growth, the patterns are less straightforward. While we observe the same pattern with respect to share capital, with total debt and bank-loan financing we find a non-monotonic u-shaped relationship between initial financing levels and sales growth. Very low levels of debt lead to high growth, medium levels to lower growth, and very high levels again to a relatively higher growth rate.

Insert table 10 about here

In the cross-sectional regressions we find very much the same pattern. The initial share capital has a positive and significant (statistically and economically) effect on the growth of total assets as well as on the growth of sales. The reverse is true with respect to the initial levels of the total debt ratio and the bank debt ratio.

## 6 Conclusion

This paper focuses on the financing dynamics of newly founded firms. Using data from French manufacturing firms founded between 2004 and 2006, we are able to investigate a completely new aspect of the financing structures of entrepreneurial firms: the initial financing decisions and their effect on future financing decisions.

First, we find a clear-cut picture of the initial financing structure of very young firms in which they rely to an astonishing extent on external financing sources that

include both trade as well as bank credit. The importance of bank credit is especially surprising and speaks against the often claimed difficulty of young entrepreneurial firms to access formal bank loans due to information asymmetries. This result also has immediate policy implications: bank credit and hence, formal debt channels play an important role in the financing of investments in this particularly important segment of the corporate universe.

Second, by investigating the financing dynamics of these very young firms, we are able to identify a persistence-cum-convergence pattern, which shows that there are clear patterns of persistence in the initial financing conditions but also a slow degree of convergence among the firms with respect to their financing structures.

Further, we show that firms, which initially finance with equity tend to grow significantly faster than their debt-financed counterparts. Thus, we are able to draw a comprehensive picture of the dynamics of these newly founded firms, which we consider to be an important insight in the life cycle of a decisive part of corporate France.

Based on our analysis a number of open research questions remain. First and foremost, are there any financial constraints which play an important role in these young firms? And second, do financial crises have an effect on the financing conditions of these firms by imposing potentially even further financial restrictions? What role do these further restrictions potentially have on the financing dynamics? We leave these questions open for future research.

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Table 1: Variable description

This table provides an overview of the main variables used in the paper

| Variable                       | Variable description  |
|--------------------------------|---|
| <i>General characteristics</i> |   |
| Sales                          | Gross sales minus discounts and allowances                              |
| Total assets                   | Total size of the balance sheet   |
| Fixed assets                   | sum of tangible and intangible fixed assets                             |
| Cash                           | cash and other liquid assets  |
| Operative income               | net income ex financial income  |
| Net income                     | net profits after taxes   |
| Industry dummies               | Industries based on the French activities classification codes (NAF II) |
| Regional dummies               | Regional divisions based on the postal code of the firm headquarter     |
| Year of creation               | Year in which the company was registered                                |
| Single-member company          | single shareholder limited company                                      |
| Limited-liability company      | private limited company   |
| Share company                  | unlisted public company   |
| <i>Financial variables</i>     |   |
| Share capital                  | paid-in capital plus legal reserves                                     |
| Total debt                     | total sum of liabilities  |
| Long-term debt                 | Obligations + long-term credit  |
| Loans from credit institutions | Loans from banks  |
| Trade credit                   | accounts payable and short-term debt by other companies                 |
| Retained earnings              | accumulated retained earnings and specific statutory reserves           |

Table 2: Summary statistics

This table presents the summary statistics for all firms of our sample and the most important control variables in year 1 and in year 7 after the foundation of the company.

| Variables                  | Year 1 after foundation |      |        |         |       |         | Year 7 after foundation |       |        |         |       |         |
|----------------------------|-------------------------|------|--------|---------|-------|---------|-------------------------|-------|--------|---------|-------|---------|
|                            | # obs.                  | Mean | Median | St.dev. | Min   | Max     | # obs.                  | Mean  | Median | St.dev. | Min   | Max     |
| Total assets               | 2456                    | 2616 | 209    | 34357   | 0     | 1486467 | 2431                    | 5162  | 363    | 89954   | 3     | 3962514 |
| Sales                      | 2456                    | 3095 | 300    | 31014   | 0     | 1133969 | 2431                    | 5799  | 554    | 95353   | 0     | 4393193 |
| Cash to total assets       | 2455                    | 0.16 | 0.11   | 0.17    | 0     | 1       | 2431                    | 0.16  | 0.10   | 0.18    | 0     | 0.98    |
| Sales to total assets      | 2455                    | 1.72 | 1.61   | 1.04    | 0     | 12.96   | 2431                    | 1.76  | 1.67   | 0.90    | 0     | 9       |
| Fixed assets to TA         | 2455                    | 0.26 | 0.21   | 0.22    | 0     | 1.00    | 2431                    | 0.23  | 0.18   | 0.20    | 0     | 1.00    |
| Op. income to TA           | 2455                    | 0.12 | 0.11   | 0.25    | -3.17 | 0.98    | 2431                    | 0.06  | 0.06   | 0.19    | -2.33 | 2.52    |
| Net income to TA           | 2455                    | 0.10 | 0.09   | 0.21    | -1.42 | 0.81    | 2431                    | 0.05  | 0.06   | 0.16    | -2.35 | 0.88    |
| Actual number of employees |                         |      |        |         |       |         | 2456                    | 20.31 | 3      | 200.22  | 0     | 6646    |

|                           | Number of observation | Percentage |
|---------------------------|-----------------------|------------|
| Industry 1 NAF 20 +21     | 125                   | 5.09       |
| Industry 2 NAF 22 + 23    | 469                   | 19.10      |
| Industry 3 NAF 23+24      | 1,099                 | 44.77      |
| Industry 4 NAF 26+27      | 271                   | 11.04      |
| Industry 5 NAF 28+29      | 491                   | 20.00      |
| Single-member company     | 458                   | 18.65      |
| Limited-liability company | 1439                  | 58.59      |
| Share company             | 538                   | 21.91      |
| Other legal forms         | 21                    | 0.86       |
| North of France           | 373                   | 15.19      |
| South of France           | 520                   | 21.17      |
| West of France            | 376                   | 15.31      |
| East of France            | 634                   | 25.81      |
| Centre of France          | 305                   | 12.42      |
| Region of Paris           | 233                   | 9.49       |
| Other Regions             | 15                    | 0.61       |
| Year of creation 2004     | 752                   | 30.62      |
| Year of creation 2005     | 817                   | 33.27      |
| Year of creation 2006     | 887                   | 36.12      |

Table 3: Pairwise correlation coefficients between main variables

This table presents the pairwise correlation coefficients for our independent variables. The abbreviations are the following: SC = share capital, TA = total assets, OI= operating income, NI = net income, SMC = single member company, LLC = limited liability company, SC = share company. The 10% significance level is indicated by \*.

|                 | (1)    | (2)    | (3)    | (4)    | (5)    | (6)    | (7)    | (8)    | (9)    | (10)   | (11)   | (12)   | (13)   | (14)   | (15)   | (16)   | (17)   |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| SC-TA 1 (1)     | 1.00   |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| TD-TA 1 (2)     | -0.46* | 1.00   |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Loan-TA 1 (3)   | -0.17* | 0.40*  | 1.00   |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Cash-TA 1 (4)   | 0.10*  | -0.35* | -0.22* | 1.00   |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Cash-TA 6 (5)   | -0.01  | -0.22* | -0.14* | 0.39*  | 1.00   |        |        |        |        |        |        |        |        |        |        |        |        |
| Sales-TA 1 (6)  | -0.21* | 0.06*  | -0.26* | 0.02   | 0.06*  | 1.00   |        |        |        |        |        |        |        |        |        |        |        |
| Sales-TA 6 (7)  | -0.18* | 0.17*  | -0.06* | -0.04* | -0.05* | 0.48*  | 1.00   |        |        |        |        |        |        |        |        |        |        |
| OI-TA 1 (8)     | -0.36* | -0.51* | -0.22* | 0.30*  | 0.22*  | 0.19*  | 0.03   | 1.00   |        |        |        |        |        |        |        |        |        |
| OI-TA 6 (9)     | -0.12* | -0.07* | 0.02   | 0.11*  | 0.27*  | 0.07*  | 0.05*  | 0.25*  | 1.00   |        |        |        |        |        |        |        |        |
| NI-TA 1 (10)    | -0.36* | -0.58* | -0.25* | 0.31*  | 0.25*  | 0.14*  | -0.00  | 0.91*  | 0.20*  | 1.00   |        |        |        |        |        |        |        |
| NI-TA 6 (11)    | -0.10* | -0.05* | 0.04*  | 0.09*  | 0.24*  | 0.35*  | -0.17* | 0.15*  | 0.81*  | 0.15*  | 1.00   |        |        |        |        |        |        |
| FA-TA 1 (12)    | 0.01   | 0.22*  | 0.61*  | -0.31* | -0.17* | -0.23* | 0.06*  | -0.03  | -0.01  | -0.05* | -0.01  | 1.00   |        |        |        |        |        |
| FA-TA 6 (13)    | 0.02   | 0.09*  | 0.33*  | -0.17* | -0.32* | -0.23* | -0.26* | -0.11* | -0.11* | -0.11* | 0.58*  | 0.05*  | 1.00   |        |        |        |        |
| TA 1 (14)       | 0.08*  | -0.05* | -0.04* | -0.05* | -0.05* | -0.04* | -0.04* | -0.04* | -0.02  | -0.04* | 0.02   | 0.04*  | 0.04*  | 1.00   |        |        |        |
| Sales 1 (15)    | 0.08*  | -0.06* | -0.06* | -0.07* | -0.06* | -0.01  | -0.03  | -0.03  | -0.01  | -0.04* | -0.01  | 0.00   | 0.04*  | 0.94*  | 1.00   |        |        |
| Employees (16)  | 0.12*  | -0.08* | -0.05* | -0.06* | -0.06* | -0.04* | -0.03  | -0.04* | -0.06* | -0.05* | -0.07* | -0.00  | 0.04*  | 0.72*  | 0.69*  | 1.00   |        |
| Industry 1 (17) | 0.15*  | -0.05* | -0.07* | -0.04* | -0.04* | -0.07* | -0.10* | -0.09* | -0.04* | -0.10* | -0.03  | 0.01   | 0.04*  | 0.07*  | 0.07*  | 0.04*  | 1.00   |
| Industry 2 (18) | -0.02  | 0.08*  | 0.05*  | -0.01  | -0.04* | 0.02   | 0.06*  | -0.03  | -0.01  | -0.05* | -0.02  | 0.09*  | 0.10*  | -0.02  | -0.02  | -0.01  | -0.11* |
| Industry 3 (19) | -0.13* | 0.04*  | 0.10*  | -0.02  | 0.04*  | 0.02   | 0.06*  | 0.09*  | 0.03*  | 0.07*  | 0.04*  | 0.07*  | 0.03   | -0.04* | -0.04* | -0.04* | -0.21* |
| Industry 4 (20) | 0.11*  | -0.08* | -0.08* | 0.02   | 0.01   | -0.06* | -0.05* | -0.07* | -0.07* | -0.00  | -0.05* | -0.06* | -0.06* | 0.04*  | 0.03   | 0.07*  | -0.08* |
| Industry 5 (21) | 0.02   | -0.03* | -0.07* | 0.04*  | -0.00  | 0.04*  | -0.02  | 0.02   | 0.02   | 0.02   | 0.02   | -0.13* | -0.11* | 0.00   | 0.01   | 0.01   | -0.12* |
| SMC (22)        | -0.06* | 0.00   | 0.08*  | 0.07*  | 0.07*  | 0.09*  | 0.08*  | 0.06*  | 0.01   | 0.06*  | 0.01   | 0.04*  | 0.01   | -0.03  | -0.04* | -0.04* | -0.04* |
| LLC (23)        | -0.18* | 0.09*  | 0.06*  | 0.08*  | 0.07*  | 0.09*  | 0.08*  | 0.09*  | 0.06*  | 0.08*  | 0.06*  | 0.03   | -0.05* | -0.08* | -0.10* | -0.09* | -0.10* |
| SC (24)         | 0.26*  | -0.10* | -0.10* | -0.15* | -0.13* | -0.12* | -0.12* | -0.16* | -0.07* | -0.15* | -0.08* | -0.01  | 0.04*  | 0.12*  | 0.14*  | 0.16*  | 0.16*  |
| Other (25)      | 0.02   | -0.01  | 0.02   | -0.04* | -0.02  | -0.04* | -0.07* | -0.01  | -0.03  | -0.00  | -0.04* | 0.01   | 0.04*  | 0.03   | 0.07*  | 0.02   | -0.00  |
| North (26)      | -0.02  | 0.02   | -0.13* | 0.00   | 0.02   | 0.01   | -0.05* | -0.04* | -0.02  | -0.03  | -0.01  | -0.05* | -0.02  | 0.10*  | 0.09*  | 0.11*  | 0.13*  |
| South (27)      | -0.00  | -0.07* | -0.07* | 0.08*  | 0.07*  | 0.06*  | 0.05*  | 0.06*  | 0.04*  | 0.06*  | 0.01   | 0.01   | -0.01  | -0.01  | -0.01  | -0.01  | 0.03   |
| West (28)       | -0.04  | 0.02   | 0.08*  | -0.02  | -0.02  | 0.02   | 0.01   | 0.04*  | 0.02   | 0.01   | -0.01  | -0.01  | -0.00  | -0.02  | -0.03  | -0.01  | -0.02  |
| East (29)       | -0.03  | 0.06*  | 0.03   | -0.03  | 0.01   | -0.00  | -0.01  | -0.01  | -0.01  | -0.02  | -0.01  | 0.01   | -0.00  | -0.02  | -0.00  | -0.02  | -0.05* |
| Centre (30)     | -0.02  | 0.02   | 0.09*  | -0.02  | -0.04* | -0.06* | -0.06* | -0.02  | -0.00  | -0.00  | -0.01  | 0.06*  | 0.06*  | -0.02  | -0.02  | -0.02  | -0.01  |
| Paris (31)      | 0.13*  | -0.07* | -0.13* | 0.00   | 0.02   | 0.01   | -0.05* | -0.04* | -0.02  | -0.03  | -0.01  | -0.05* | -0.02  | 0.10*  | 0.09*  | 0.11*  | 0.13*  |
| Other Reg. (32) | -0.01  | -0.02  | -0.01  | 0.01   | -0.01  | 0.01   | 0.01   | 0.01   | 0.01   | 0.01   | 0.01   | 0.00   | -0.01  | -0.01  | -0.01  | -0.01  | 0.03   |
| 2004 (33)       | 0.03   | 0.02   | -0.03  | -0.06* | -0.05* | 0.02   | -0.03  | -0.07* | -0.06* | -0.07* | -0.07* | 0.00   | -0.02  | 0.00   | 0.01   | -0.00  | 0.00   |
| 2005 (34)       | -0.03  | -0.01  | 0.02   | 0.04*  | 0.01   | -0.02  | -0.02  | 0.05*  | 0.04*  | 0.05*  | 0.06*  | 0.02   | 0.02   | 0.01   | 0.00   | -0.01  | 0.01   |
| 2006 (35)       | -0.00  | -0.02  | 0.01   | 0.02   | 0.03   | -0.00  | 0.04*  | 0.03   | 0.01   | 0.01   | 0.01   | -0.02  | 0.00   | -0.02  | -0.01  | 0.01   | -0.02  |

  

|                 | (18)   | (19)   | (20)   | (21)  | (22)   | (23)   | (24)   | (25)   | (26)   | (27)   | (28)   | (29)   | (30)   | (31)   | (32)  | (33)   | (34)   |
|-----------------|--------|--------|--------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|--------|
| Industry 2 (18) | 1.00   |        |        |       |        |        |        |        |        |        |        |        |        |        |       |        |        |
| Industry 3 (19) | -0.44* | 1.00   |        |       |        |        |        |        |        |        |        |        |        |        |       |        |        |
| Industry 4 (20) | -0.17* | -0.32* | 1.00   |       |        |        |        |        |        |        |        |        |        |        |       |        |        |
| Industry 5 (21) | -0.24* | -0.45* | -0.18* | 1.00  |        |        |        |        |        |        |        |        |        |        |       |        |        |
| SMC (22)        | -0.01  | 0.02   | -0.01  | 0.01  | 1.00   |        |        |        |        |        |        |        |        |        |       |        |        |
| LLC (23)        | 0.02   | 0.07*  | -0.05* | -0.01 | 1.00   | 1.00   |        |        |        |        |        |        |        |        |       |        |        |
| SC (24)         | -0.03  | -0.09* | 0.07*  | 0.00  | -0.25* | -0.63* | 1.00   |        |        |        |        |        |        |        |       |        |        |
| Other (25)      | 0.06*  | -0.07* | 0.02   | 0.01  | -0.04* | -0.11* | -0.05* | 1.00   |        |        |        |        |        |        |       |        |        |
| North (26)      | -0.03  | 0.06*  | -0.06* | 0.01  | -0.02  | -0.01  | 0.03   | -0.00  | 1.00   |        |        |        |        |        |       |        |        |
| South (27)      | 0.05*  | -0.05* | 0.03*  | -0.02 | 0.05*  | 0.00   | -0.04* | -0.02  | -0.22* | 1.00   |        |        |        |        |       |        |        |
| West (28)       | 0.03   | -0.01  | -0.05* | 0.03* | 0.03   | 0.01   | -0.03  | -0.03  | -0.18* | -0.22* | 1.00   |        |        |        |       |        |        |
| East (29)       | -0.06* | 0.08*  | -0.01  | -0.00 | 0.02   | 0.00   | -0.02  | -0.00  | -0.25* | -0.31* | -0.25* | 1.00   |        |        |       |        |        |
| Centre (30)     | 0.06*  | -0.02  | -0.01  | -0.01 | -0.04* | 0.03   | -0.01  | 0.03   | -0.16* | -0.21* | -0.16* | -0.22* | 1.00   |        |       |        |        |
| Paris (31)      | -0.04* | -0.09* | 0.13*  | -0.02 | -0.07* | -0.04* | 0.11*  | 0.03   | -0.14* | -0.17* | -0.14* | -0.19* | -0.12* | 1.00   |       |        |        |
| Other Reg. (32) | -0.02  | 0.00   | -0.01  | 0.01  | 0.00   | 0.03*  | -0.04* | -0.01  | -0.03  | -0.04* | -0.03* | -0.05* | -0.03  | -0.03  | 1.00  |        |        |
| 2004 (33)       | 0.00   | 0.00   | 0.00   | -0.01 | -0.03  | 0.06*  | 0.06*  | 0.01   | 0.00   | -0.03  | -0.04* | 0.04*  | 0.01   | 0.01   | 0.00  | 1.00   |        |
| 2005 (34)       | -0.02  | 0.01   | -0.01  | 0.01  | -0.01  | 0.03   | -0.02  | -0.04* | -0.01  | 0.06*  | 0.02   | -0.05* | 0.00   | -0.04* | 0.01  | -0.47* | 1.00   |
| 2006 (35)       | 0.01   | -0.01  | 0.01   | -0.00 | 0.04*  | -0.01  | -0.03  | 0.03   | 0.00   | -0.03  | 0.02   | 0.00   | -0.01  | 0.03   | -0.02 | -0.50* | -0.53* |

Table 4: Initial Financing Decisions

This table presents the summary statistics for the initial financing decisions for all firms in the first year after foundation (only retained earnings are reported in the second year after foundation). The first line of each panel reports the mean, the second line the median and the last line the standard deviation. We report the summary statistics only for the following selected financing ratios: share capital to total assets, total debt to total assets, long-term debt to total assets, loans from credit institutions to total assets, trade credits to total assets as well as retained earnings to total assets. Panel A reports the statistics for all firms of the sample. Panel B reports the statistics grouping the firms with respect to their industry. Panel C reports the statistics grouping the firms with respect to their initial size: we form four groups based on the 25%, 50% and 75% percentile corresponding to 90, 209 and 523 thousand euros. In addition, the results of standard t-test comparing the means between the different groups are reported. We compare the groups in the order of the corresponding panel and indicate the significance only in the cells of the first group of the comparison. The results are indicated by \*, \*\*, \*\*\* for comparison between all preceding groups and the second group, with ◦, ◦◦, ◦◦◦ for comparison between all preceding groups and the third group, with ▷, ▷▷, ▷▷▷ for comparison between all preceding groups and the fourth group, with •, ••, ••• for comparison between all preceding groups and the fifth group, and with △, △△, △△△ for comparison between all preceding groups and the sixth group indicating the 10%, 5% and 1% significance level, respectively.

**Panel A: All firms**

All firms: 2455 observations

|           | Share capital<br>to total assets | Total debt to<br>total assets | Long-term debt<br>to total assets | Loans from credit inst.<br>to total assets | Trade credits<br>to total assets | Retained earnings<br>to total assets |
|-----------|----------------------------------|-------------------------------|-----------------------------------|--|----------------------------------|--------------------------------------|
| Mean      | 0.15                             | 0.73                          | 0.28                              | 0.18                                       | 0.25                             | 0.06                                 |
| Median    | 0.08                             | 0.75                          | 0.24                              | 0.11                                       | 0.21                             | 0.04                                 |
| Std. dev. | 0.20                             | 0.24                          | 0.25                              | 0.21                                       | 0.19                             | 0.16                                 |

**Panel B: Industries**

Industry 1: 125 observations

|           | Share capital<br>to total assets | Total debt to<br>total assets | Long-term debt<br>to total assets | Loans from credit inst.<br>to total assets | Trade credits<br>to total assets | Retained earnings<br>to total assets |
|-----------|----------------------------------|-------------------------------|-----------------------------------|--|----------------------------------|--------------------------------------|
| Mean      | ▷▷•••0.28***◦◦◦                  | 0.68***◦◦◦                    | 0.25***◦                          | •0.11***◦◦◦                                | 0.25                             | ▷▷•••0.00***◦◦◦                      |
| Median    | 0.15                             | 0.71                          | 0.21                              | 0.00                                       | 0.21                             | 0.00                                 |
| Std. dev. | 0.31                             | 0.28                          | 0.25                              | 0.19                                       | 0.19                             | 0.23                                 |

Industry 2: 469 observations

|           | Share capital<br>to total assets | Total debt to<br>total assets | Long-term debt<br>to total assets | Loans from credit inst.<br>to total assets | Trade credits<br>to total assets | Retained earnings<br>to total assets |
|-----------|----------------------------------|-------------------------------|-----------------------------------|--|----------------------------------|--------------------------------------|
| Mean      | ▷▷▷0.14◦◦                        | ▷▷▷•••0.77◦◦                  | ▷•••0.31                          | ▷▷▷•••0.20                                 | ▷▷▷0.28◦◦◦                       | ••0.03◦◦◦                            |
| Median    | 0.08                             | 0.79                          | 0.26                              | 0.14                                       | 0.23                             | 0.02                                 |
| Std. dev. | 0.18                             | 0.24                          | 0.27                              | 0.21                                       | 0.20                             | 0.15                                 |

Industry 3: 1098 observations

|           | Share capital<br>to total assets | Total debt to<br>total assets | Long-term debt<br>to total assets | Loans from credit inst.<br>to total assets | Trade credits<br>to total assets | Retained earnings<br>to total assets |
|-----------|----------------------------------|-------------------------------|-----------------------------------|--|----------------------------------|--------------------------------------|
| Mean      | ▷▷▷•••0.12                       | ▷▷▷••0.74                     | •••0.30                           | ▷▷▷•••0.20                                 | •••0.24                          | ▷▷▷•0.07                             |
| Median    | 0.07                             | 0.76                          | 0.26                              | 0.15                                       | 0.19                             | 0.05                                 |
| Std. dev. | 0.16                             | 0.21                          | 0.23                              | 0.21                                       | 0.18                             | 0.15                                 |

Industry 4: 271 observations

|           | Share capital<br>to total assets | Total debt to<br>total assets | Long-term debt<br>to total assets | Loans from credit inst.<br>to total assets | Trade credits<br>to total assets | Retained earnings<br>to total assets |
|-----------|----------------------------------|-------------------------------|-----------------------------------|--|----------------------------------|--------------------------------------|
| Mean      | •••0.21                          | •0.68                         | 0.27                              | 0.14                                       | •••0.23                          | 0.04                                 |
| Median    | 0.12                             | 0.72                          | 0.22                              | 0.05                                       | 0.18                             | 0.02                                 |
| Std. dev. | 0.25                             | 0.27                          | 0.26                              | 0.19                                       | 0.20                             | 0.19                                 |

Industry 5: 491 observations

|           | Share capital<br>to total assets | Total debt to<br>total assets | Long-term debt<br>to total assets | Loans from credit inst.<br>to total assets | Trade credits<br>to total assets | Retained earnings<br>to total assets |
|-----------|----------------------------------|-------------------------------|-----------------------------------|--|----------------------------------|--------------------------------------|
| Mean      | 0.16                             | 0.71                          | 0.24                              | 0.15                                       | 0.27                             | 0.06                                 |
| Median    | 0.09                             | 0.73                          | 0.18                              | 0.07                                       | 0.24                             | 0.04                                 |
| Std. dev. | 0.20                             | 0.25                          | 0.24                              | 0.20                                       | 0.19                             | 0.16                                 |

**Panel C: Initial size of the company**

Group 1: Smallest companies: 617 observations

|           | Share capital<br>to total assets | Total debt to<br>total assets | Long-term debt<br>to total assets | Loans from credit inst.<br>to total assets | Trade credits<br>to total assets | Retained earnings<br>to total assets |
|-----------|----------------------------------|-------------------------------|-----------------------------------|--|----------------------------------|--------------------------------------|
| Mean      | ▷▷▷0.23*** <sup>ooo</sup>        | ▷▷▷0.67*** <sup>ooo</sup>     | 0.27** <sup>o</sup>               | 0.16*** <sup>ooo</sup>                     | ▷▷▷0.20*** <sup>ooo</sup>        | 0.04*** <sup>ooo</sup>               |
| Median    | 0.15                             | 0.68                          | 0.23                              | 0.02                                       | 0.16                             | 0.02                                 |
| Std. dev. | 0.25                             | 0.29                          | 0.26                              | 0.21                                       | 0.17                             | 0.20                                 |

Group 2: Small companies: 613 observations

|           | Share capital<br>to total assets | Total debt to<br>total assets | Long-term debt<br>to total assets | Loans from credit inst.<br>to total assets | Trade credits<br>to total assets | Retained earnings<br>to total assets |
|-----------|----------------------------------|-------------------------------|-----------------------------------|--|----------------------------------|--------------------------------------|
| Mean      | ▷▷▷0.11                          | ▷▷0.73 <sup>oo</sup>          | ▷▷▷0.31                           | ▷▷▷0.21                                    | ▷▷▷0.22 <sup>ooo</sup>           | ▷▷▷0.08                              |
| Median    | 0.07                             | 0.73                          | 0.26                              | 0.15                                       | 0.18                             | 0.06                                 |
| Std. dev. | 0.14                             | 0.21                          | 0.25                              | 0.22                                       | 0.18                             | 0.16                                 |

Group 3: Larger companies: 611 observations

|           | Share capital<br>to total assets | Total debt to<br>total assets | Long-term debt<br>to total assets | Loans from credit inst.<br>to total assets | Trade credits<br>to total assets | Retained earnings<br>to total assets |
|-----------|----------------------------------|-------------------------------|-----------------------------------|--|----------------------------------|--------------------------------------|
| Mean      | ▷▷▷0.10                          | 0.77                          | ▷▷▷0.30                           | ▷▷▷0.20                                    | ▷▷▷0.27                          | ▷▷▷0.07                              |
| Median    | 0.05                             | 0.79                          | 0.26                              | 0.15                                       | 0.23                             | 0.06                                 |
| Std. dev. | 0.14                             | 0.19                          | 0.24                              | 0.21                                       | 0.20                             | 0.14                                 |

Group 4: Largest companies: 614 observations

|           | Share capital<br>to total assets | Total debt to<br>total assets | Long-term debt<br>to total assets | Loans from credit inst.<br>to total assets | Trade credits<br>to total assets | Retained earnings<br>to total assets |
|-----------|----------------------------------|-------------------------------|-----------------------------------|--|----------------------------------|--------------------------------------|
| Mean      | 0.16                             | 0.76                          | 0.26                              | 0.16                                       | 0.32                             | 0.03                                 |
| Median    | 0.07                             | 0.79                          | 0.20                              | 0.09                                       | 0.29                             | 0.02                                 |
| Std. dev. | 0.20                             | 0.22                          | 0.23                              | 0.18                                       | 0.20                             | 0.13                                 |

Table 5: Evolution of financing decisions: adjustment vs. persistence

This table presents the evolution of the financing decisions for all firms during the first seven years after foundation. Based on their financing decisions in the first year after foundation (in the case of retained earnings based on the second year), we group the firms into four groups. Depending on the financial ratio of the respective panel, we determine the 25%, 50% and 75% percentile in order to form the 4 groups. Panel A to panel E report the statistics for the following selected financing ratios: share capital to total assets, total debt to total assets, long-term debt to total assets, loans from credit institutions to total assets, trade credits to total assets as well as retained earnings to total assets. The mean and the standard deviation (in parenthesis) are indicated for each year. In addition, we report the results of standard t-tests comparing the means between the four groups for each year. The results are indicated by \*, \*\*, \*\*\* for comparison between group 1 and group 2, with ◊, ◊◊, ◊◊◊ for comparison between group 1 and group 3, with ▷, ▷▷, ▷▷▷ for comparison between group 1 and group 4, with ●, ●●, ●●● for comparison between group 2 and group 3, with ^, ^^, ^^ for comparison between group 2 and group 4 and with †, ††, ††† for comparison between group 3 and group 4, indicating the 10%, 5% and 1% significance level, respectively. We only indicate the significance in the cell of the first of the two groups.

Panel A: Share capital to total assets

|                         | Group 1             | Group 2          | Group 3       | Group 4    |
|-------------------------|---------------------|------------------|---------------|------------|
| Mean (Std. dev.) Year 1 | ▷▷▷0.02(0.01)***◊◊◊ | ^^^0.06(0.01)●●● | 0.12(0.03)††† | 0.40(0.25) |
| Mean (Std. dev.) Year 2 | ▷▷▷0.03(0.05)***◊◊◊ | ^^^0.06(0.04)●●● | 0.12(0.07)††† | 0.35(0.27) |
| Mean (Std. dev.) Year 3 | ▷▷▷0.04(0.07)***◊◊◊ | ^^^0.07(0.06)●●● | 0.12(0.10)††† | 0.33(0.26) |
| Mean (Std. dev.) Year 4 | ▷▷▷0.05(0.08)***◊◊◊ | ^^^0.07(0.08)●●● | 0.13(0.12)††† | 0.33(0.28) |
| Mean (Std. dev.) Year 5 | ▷▷▷0.06(0.11)***◊◊◊ | ^^^0.08(0.08)●●● | 0.13(0.13)††† | 0.33(0.28) |
| Mean (Std. dev.) Year 6 | ▷▷▷0.07(0.13)***◊◊◊ | ^^^0.08(0.09)●●● | 0.14(0.14)††† | 0.32(0.28) |
| Mean (Std. dev.) Year 7 | ▷▷▷0.07(0.13)◊◊◊    | ^^^0.08(0.09)●●● | 0.14(0.14)††† | 0.31(0.28) |

Panel B: Total debt to total assets

|                         | Group 1             | Group 2          | Group 3       | Group 4    |
|-------------------------|---------------------|------------------|---------------|------------|
| Mean (Std. dev.) Year 1 | ▷▷▷0.42(0.14)***◊◊◊ | ^^^0.69(0.04)●●● | 0.82(0.04)††† | 1.00(0.15) |
| Mean (Std. dev.) Year 2 | ▷▷▷0.46(0.19)***◊◊◊ | ^^^0.65(0.13)●●● | 0.77(0.13)††† | 0.93(0.17) |
| Mean (Std. dev.) Year 3 | ▷▷▷0.46(0.22)***◊◊◊ | ^^^0.63(0.16)●●● | 0.73(0.17)††† | 0.89(0.22) |
| Mean (Std. dev.) Year 4 | ▷▷▷0.47(0.25)***◊◊◊ | ^^^0.61(0.19)●●● | 0.70(0.19)††† | 0.86(0.25) |
| Mean (Std. dev.) Year 5 | ▷▷▷0.47(0.26)***◊◊◊ | ^^^0.59(0.22)●●● | 0.69(0.23)††† | 0.82(0.26) |
| Mean (Std. dev.) Year 6 | ▷▷▷0.48(0.27)***◊◊◊ | ^^^0.58(0.22)●●● | 0.67(0.24)††† | 0.79(0.28) |
| Mean (Std. dev.) Year 7 | ▷▷▷0.49(0.29)***◊◊◊ | ^^^0.58(0.23)●●● | 0.66(0.24)††† | 0.76(0.28) |

Panel C: Long-term debt to total assets

|                         | Group 1             | Group 2          | Group 3       | Group 4    |
|-------------------------|---------------------|------------------|---------------|------------|
| Mean (Std. dev.) Year 1 | ▷▷▷0.02(0.02)***◊◊◊ | ^^^0.15(0.05)●●● | 0.33(0.06)††† | 0.63(0.16) |
| Mean (Std. dev.) Year 2 | ▷▷▷0.08(0.14)***◊◊◊ | ^^^0.16(0.12)●●● | 0.29(0.14)††† | 0.53(0.19) |
| Mean (Std. dev.) Year 3 | ▷▷▷0.11(0.17)***◊◊◊ | ^^^0.17(0.15)●●● | 0.27(0.17)††† | 0.47(0.21) |
| Mean (Std. dev.) Year 4 | ▷▷▷0.13(0.19)***◊◊◊ | ^^^0.17(0.16)●●● | 0.25(0.19)††† | 0.42(0.23) |
| Mean (Std. dev.) Year 5 | ▷▷▷0.14(0.19)***◊◊◊ | ^^^0.18(0.18)●●● | 0.24(0.20)††† | 0.37(0.24) |
| Mean (Std. dev.) Year 6 | ▷▷▷0.13(0.18)***◊◊◊ | ^^^0.17(0.18)●●● | 0.22(0.19)††† | 0.33(0.24) |
| Mean (Std. dev.) Year 7 | ▷▷▷0.14(0.20)***◊◊◊ | ^^^0.18(0.17)●●● | 0.21(0.19)††† | 0.29(0.25) |

Panel D: Loans from credit institutions to total assets

|                         | Group 1             | Group 2          | Group 3       | Group 4    |
|-------------------------|---------------------|------------------|---------------|------------|
| Mean (Std. dev.) Year 1 | ▷▷▷0.00(0.00)***◊◊◊ | ^^^0.05(0.03)●●● | 0.20(0.06)††† | 0.49(0.14) |
| Mean (Std. dev.) Year 2 | ▷▷▷0.04(0.10)***◊◊◊ | ^^^0.07(0.09)●●● | 0.17(0.11)††† | 0.39(0.16) |
| Mean (Std. dev.) Year 3 | ▷▷▷0.06(0.12)***◊◊◊ | ^^^0.08(0.11)●●● | 0.16(0.12)††† | 0.33(0.17) |
| Mean (Std. dev.) Year 4 | ▷▷▷0.06(0.13)***◊◊◊ | ^^^0.09(0.12)●●● | 0.14(0.13)††† | 0.28(0.17) |
| Mean (Std. dev.) Year 5 | ▷▷▷0.07(0.15)***◊◊◊ | ^^^0.09(0.12)●●● | 0.13(0.14)††† | 0.23(0.18) |
| Mean (Std. dev.) Year 6 | ▷▷▷0.07(0.13)***◊◊◊ | ^^^0.09(0.11)●●● | 0.12(0.13)††† | 0.19(0.17) |
| Mean (Std. dev.) Year 7 | ▷▷▷0.07(0.13)◊◊◊    | ^^^0.08(0.10)●●● | 0.11(0.14)††† | 0.15(0.16) |

**Panel E: Trade credits to total assets**

|                         | Group 1            | Group 2           | Group 3       | Group 4    |
|-------------------------|--------------------|-------------------|---------------|------------|
| Mean (Std. dev.) Year 1 | ▷▷▷ 0.05(0.03)**** | ^^^ 0.16(0.03)*** | 0.28(0.04)''' | 0.52(0.14) |
| Mean (Std. dev.) Year 2 | ▷▷▷ 0.09(0.09)**** | ^^^ 0.18(0.10)*** | 0.28(0.12)''' | 0.44(0.18) |
| Mean (Std. dev.) Year 3 | ▷▷▷ 0.10(0.10)**** | ^^^ 0.18(0.11)*** | 0.26(0.13)''' | 0.40(0.18) |
| Mean (Std. dev.) Year 4 | ▷▷▷ 0.11(0.12)**** | ^^^ 0.17(0.11)*** | 0.25(0.13)''' | 0.37(0.19) |
| Mean (Std. dev.) Year 5 | ▷▷▷ 0.11(0.11)**** | ^^^ 0.18(0.12)*** | 0.24(0.13)''' | 0.36(0.19) |
| Mean (Std. dev.) Year 6 | ▷▷▷ 0.12(0.11)**** | ^^^ 0.18(0.13)*** | 0.24(0.15)''' | 0.34(0.19) |
| Mean (Std. dev.) Year 7 | ▷▷▷ 0.13(0.12)**** | ^^^ 0.18(0.13)*** | 0.24(0.15)''' | 0.34(0.19) |

**Panel F: Retained earnings to total assets**

|                         | Group 1             | Group 2           | Group 3       | Group 4    |
|-------------------------|---------------------|-------------------|---------------|------------|
| Mean (Std. dev.) Year 1 | ▷▷▷ -0.02(0.08)**** | ^^^ 0.00(0.03)*** | 0.01(0.04)''' | 0.06(0.10) |
| Mean (Std. dev.) Year 2 | ▷▷▷ -0.09(0.15)**** | ^^^ 0.02(0.01)*** | 0.08(0.03)''' | 0.24(0.12) |
| Mean (Std. dev.) Year 3 | ▷▷▷ -0.06(0.19)**** | ^^^ 0.06(0.09)*** | 0.14(0.10)''' | 0.31(0.19) |
| Mean (Std. dev.) Year 4 | ▷▷▷ -0.03(0.24)**** | ^^^ 0.09(0.13)*** | 0.17(0.16)''' | 0.34(0.21) |
| Mean (Std. dev.) Year 5 | ▷▷▷ -0.02(0.28)**** | ^^^ 0.10(0.18)*** | 0.19(0.17)''' | 0.35(0.25) |
| Mean (Std. dev.) Year 6 | ▷▷▷ -0.00(0.31)**** | ^^^ 0.11(0.20)*** | 0.19(0.24)''' | 0.34(0.26) |
| Mean (Std. dev.) Year 7 | ▷▷▷ 0.02(0.31)****  | ^^^ 0.13(0.22)*** | 0.20(0.23)''' | 0.36(0.26) |

Table 6: Impact of initial financing decisions on subsequent financing decisions: cross-section analysis

This table presents the results of standard least square regressions with the endogenous variables being the growth rate between year 1 and year 7 of our financing decision ratios. The independent variables include the initial financing decision with respect to the same variable in year 1 as well as the following control variables: the total assets in the first year after foundation in order to control for size effects. The fixed-asset ratio as well as the sales to total assets ratio in the first year after foundation in order to control for firm-specificities like the business-model, the production process etc., the net-income to total asset ratio of year 6, i.e. one year before our dependent variable in order to control for the current possibilities of internal financing, the dummies which control for the current legal form of the company, the dummies which control for the region where the company is located, the industry dummy variables as well as the dummy variables of the foundation year. Coefficients are reported, Standard errors are reported in parentheses. \*, \*\* and \*\*\* indicate the 10%, 5% and 1% level, respectively.

| Independent Variables                          | Change in financing decision ratios between year 1 and year 7 as endogenous variables |                               |                                   |   |                                 |                                      |
|--|---|-------------------------------|-----------------------------------|---|---------------------------------|--------------------------------------|
|  | Endogenous variables  |                               |                                   |   |                                 |                                      |
|  | Share capital<br>to total assets  | Total debt<br>to total assets | Long-term debt<br>to total assets | Loans f. cred. inst.<br>to total assets | Trade credit<br>to total assets | Retained earnings<br>to total assets |
| Financing variable 1<br>(like endogenous var.) | -7.63**<br>(2.79)   | -10.53***<br>(2.28)           | -14.78***<br>(4.00)               | -20.65**<br>(8.16)                      | -6.42***<br>(1.54)              | -5.51<br>(4.95)                      |
| Total assets 1                                 | -0.00<br>(0.00)   | -0.00<br>(0.00)               | 0.00<br>(0.00)                    | 0.00<br>(0.00)                          | -0.00<br>(0.00)                 | -0.00<br>(0.00)                      |
| Sales to TA 1                                  | -0.60<br>(0.54)   | -0.26<br>(0.54)               | 0.99<br>(0.82)                    | 1.83<br>(1.43)                          | -0.47*<br>(0.29)                | -0.74<br>(0.83)                      |
| Cum. net income 1-6                            | -0.00<br>(0.00)   | -0.00<br>(0.00)               | 0.00<br>(0.00)                    | -0.00<br>(0.00)                         | 0.00<br>(0.00)                  | -0.00<br>(0.00)                      |
| Fixed assets to TA 1                           | 1.67<br>(2.54)  | 6.72**<br>(2.63)              | 1.05<br>(4.47)                    | 8.17<br>(7.86)                          | 10.07***<br>(1.41)              | 0.23<br>(4.02)                       |
| Limited liability comp.                        | -0.14<br>(1.35)   | 0.33<br>(1.36)                | -0.56<br>(1.96)                   | -2.05<br>(3.33)                         | 0.12<br>(0.72)                  | -0.24<br>(2.14)                      |
| Share company                                  | 0.81<br>(1.66)  | 2.64<br>(1.65)                | 7.33***<br>(2.41)                 | 10.69***<br>(4.13)                      | 3.58***<br>(0.87)               | 3.25<br>(2.59)                       |
| Other legal forms                              | 54.55***<br>(5.60)  | -0.92<br>(5.61)               | -0.35<br>(8.28)                   | -1.30<br>(13.82)                        | -1.51<br>(2.98)                 | -4.04<br>(9.26)                      |
| North of France                                | -2.51<br>(2.16)   | 0.06<br>(2.16)                | 3.06<br>(3.17)                    | 9.07*<br>(5.51)                         | 0.38<br>(1.14)                  | 0.32<br>(3.34)                       |
| East of France                                 | -0.11<br>(1.99)   | 2.23<br>(1.99)                | 1.96<br>(2.93)                    | 9.35*<br>(5.05)                         | 0.32<br>(1.06)                  | -0.33<br>(3.09)                      |
| West of France                                 | -1.93<br>(2.16)   | 0.08<br>(2.16)                | 5.51*<br>(3.18)                   | 9.60*<br>(5.49)                         | -0.30<br>(1.14)                 | 3.48<br>(3.37)                       |
| Centre of France                               | -3.14<br>(2.25)   | 0.40<br>(2.24)                | 6.65**<br>(3.27)                  | 14.01**<br>(5.65)                       | -0.91<br>(1.19)                 | -0.68<br>(3.50)                      |
| South of France                                | -2.18<br>(2.04)   | -0.34<br>(2.04)               | 0.90<br>(3.00)                    | 4.90<br>(5.17)                          | -0.72<br>(1.08)                 | -1.21<br>(3.16)                      |
| Other Regions                                  | -2.34<br>(6.67)   | 0.36<br>(6.67)                | 1.32<br>(9.93)                    | 4.32<br>(17.01)                         | -0.12<br>(3.51)                 | -1.58<br>(10.29)                     |
| Industry 1                                     | 0.73<br>(2.43)  | -0.60<br>(2.42)               | -4.63<br>(3.59)                   | 13.02**<br>(6.29)                       | -0.10<br>(1.29)                 | -5.52<br>(3.81)                      |
| Industry 2                                     | 3.17**<br>(1.40)  | 3.04**<br>(1.40)              | -0.60<br>(2.02)                   | 0.74<br>(3.45)                          | 0.76<br>(0.74)                  | 2.63<br>(2.20)                       |
| Industry 4                                     | -0.24<br>(1.75)   | -0.03<br>(1.75)               | -3.65<br>(2.56)                   | -1.58<br>(4.40)                         | 1.81*<br>(0.93)                 | -1.67<br>(2.76)                      |
| Industry 5                                     | 0.13<br>(1.38)  | 0.36<br>(1.38)                | -3.30*<br>(2.00)                  | 5.14<br>(3.43)                          | 0.86<br>(0.73)                  | 0.88<br>(2.15)                       |
| Year of creation 2004                          | -0.02<br>(1.25)   | -1.68<br>(1.24)               | 1.31<br>(1.82)                    | 4.89<br>(3.10)                          | -0.92<br>(0.66)                 | -0.37<br>(1.95)                      |
| Year of creation 2005                          | 1.28<br>(1.22)  | -1.54<br>(1.22)               | 2.17<br>(1.77)                    | 0.37<br>(3.04)                          | -0.44<br>(0.65)                 | 0.37<br>(1.92)                       |
| Constant                                       | 3.12<br>(2.71)  | 6.11**<br>(2.96)              | 1.36<br>(3.95)                    | -9.83<br>(6.76)                         | 0.40<br>(1.44)                  | 4.84<br>(4.18)                       |
| Number of observations                         | 2424  | 2421                          | 2215                              | 2040                                    | 2393                            | 2189                                 |
| Prob>F   | 0.00  | 0.00                          | 0.00                              | 0.00                                    | 0.00                            | 0.78                                 |
| R2   | 0.0482  | 0.0172                        | 0.0265                            | 0.0234                                  | 0.0638                          | 0.0068                               |



Table 7: Impact of initial on subsequent financing decisions: panel analysis

This table presents the results of an Arellano-Bond dynamic panel-data estimation for the first seven years of data of all firms. Specification 1 to 3 include one, two and three lags of the dependent variable. Specifications 4-6 additionally include one lag of the exogenous time-variant variables sales to total assets (TA), net income (NI) to total assets and fixed assets (FA) to total assets. In panel A, the dependent variable is share capital to total assets. In panel B, the dependent variable is total debt to total assets. In panel C, the dependent variable is long-term debt to total assets. In panel D, the dependent variable is loans from credit institutions to total assets. In panel E, the dependent variable is trade credits to total assets. In panel F, the dependent variable is retained earnings to total assets. Coefficients are reported. Standard errors are reported in parentheses. \*, \*\* and \*\*\* indicate the 10%, 5% and 1% level, respectively.

**Panel A: Share capital (SC) to total assets**

|                        | Specification 1    | Specification 2    | Specification 3    | Specification 4    | Specification 5    | Specification 6    |
|------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Lag 1 of SC-TA         | 0.47***<br>(0.02)  | 0.50***<br>(0.04)  | 0.69***<br>(0.09)  | 0.46***<br>(0.03)  | 0.51***<br>(0.05)  | 0.75***<br>(0.10)  |
| Lag 2 of SC-TA         |                    | -0.01<br>(0.01)    | 0.01<br>(0.02)     |                    | 0.01<br>(0.01)     | 0.01<br>(0.01)     |
| Lag 3 of SC-TA         |                    |                    | 0.02<br>(0.01)     |                    |                    | 0.02<br>(0.01)     |
| Sales                  | -0.00***<br>(0.00) | -0.00***<br>(0.00) | 0.00***<br>(0.00)  | -0.00***<br>(0.00) | -0.00***<br>(0.00) | 0.00***<br>(0.00)  |
| Sales to TA            | 0.02***<br>(0.00)  | 0.03***<br>(0.00)  | 0.03***<br>(0.00)  | 0.02***<br>(0.00)  | 0.02***<br>(0.00)  | 0.03***<br>(0.00)  |
| Lag 1 of sales to TA   |                    |                    |                    | -0.00*<br>(0.00)   | -0.01***<br>(0.00) | -0.01***<br>(0.00) |
| NI to TA               | -0.14***<br>(0.01) | -0.14***<br>(0.01) | -0.16***<br>(0.01) | -0.14***<br>(0.01) | -0.15***<br>(0.01) | -0.16***<br>(0.01) |
| Lag 1 of NI to TA      |                    |                    |                    | -0.01<br>(0.01)    | -0.01**<br>(0.01)  | -0.01<br>(0.01)    |
| Fixed Assets to TA     | 0.03***<br>(0.01)  | 0.05***<br>(0.01)  | 0.08***<br>(0.01)  | 0.03***<br>(0.01)  | 0.04***<br>(0.01)  | 0.07***<br>(0.01)  |
| Lag 1 of FA to TA      |                    |                    |                    | -0.02**<br>(0.01)  | -0.03***<br>(0.01) | -0.04***<br>(0.01) |
| Constant               | 0.04***<br>(0.01)  | 0.02**<br>(0.01)   | -0.02<br>(0.02)    | 0.05***<br>(0.01)  | 0.05***<br>(0.01)  | 0.01<br>(0.02)     |
| # observations         | 12233              | 9775               | 7322               | 12233              | 9775               | 4892               |
| # groups               | 2456               | 2453               | 2451               | 2456               | 2453               | 2451               |
| average obs. per group | 4.98               | 3.98               | 2.99               | 4.98               | 3.98               | 2.99               |
| Wald chi2              | 939.11             | 707.72             | 400.12             | 1119.68            | 867.37             | 453.06             |
| Prob>chi2              | 0.00               | 0.00               | 0.00               | 0.00               | 0.00               | 0.00               |

**Panel B: Total debt (TD) to total assets**

|                        | Specification 1    | Specification 2    | Specification 3    | Specification 4    | Specification 5    | Specification 6    |
|------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Lag 1 of TD-TA         | 0.83***<br>(0.02)  | 0.77***<br>(0.02)  | 0.75***<br>(0.04)  | 0.89***<br>(0.02)  | 0.79***<br>(0.03)  | 0.75***<br>(0.05)  |
| Lag 2 of TD-TA         |                    | 0.06***<br>(0.01)  | 0.04***<br>(0.01)  |                    | 0.04***<br>(0.01)  | 0.03**<br>(0.01)   |
| Lag 3 of TD-TA         |                    |                    | 0.01<br>(0.01)     |                    |                    | 0.01<br>(0.01)     |
| Sales                  | 0.00**<br>(0.00)   | 0.00*<br>(0.00)    | -0.00***<br>(0.00) | 0.00*<br>(0.00)    | 0.00<br>(0.00)     | -0.00***<br>(0.00) |
| Sales to TA            | -0.04***<br>(0.00) | -0.04***<br>(0.00) | -0.04***<br>(0.00) | -0.04***<br>(0.00) | -0.03***<br>(0.00) | -0.03***<br>(0.00) |
| Lag 1 of sales to TA   |                    |                    |                    | 0.02***<br>(0.00)  | 0.02***<br>(0.00)  | 0.02***<br>(0.00)  |
| NI to TA               | -0.60***<br>(0.01) | -0.59***<br>(0.01) | -0.57***<br>(0.01) | -0.60***<br>(0.01) | -0.59***<br>(0.01) | -0.58***<br>(0.01) |
| Lag 1 of NI to TA      |                    |                    |                    | 0.08***<br>(0.01)  | 0.01<br>(0.01)     | -0.01<br>(0.02)    |
| Fixed Assets to TA     | 0.01<br>(0.02)     | 0.00<br>(0.02)     | -0.02<br>(0.02)    | 0.01<br>(0.02)     | 0.01<br>(0.02)     | -0.01<br>(0.02)    |
| Lag 1 of FA to TA      |                    |                    |                    | -0.03*<br>(0.02)   | -0.01<br>(0.02)    | -0.00<br>(0.02)    |
| Constant               | 0.20***<br>(0.01)  | 0.20***<br>(0.02)  | 0.22***<br>(0.03)  | 0.13***<br>(0.01)  | 0.15***<br>(0.02)  | 0.18***<br>(0.03)  |
| # observations         | 12233              | 9775               | 7322               | 12233              | 9775               | 7322               |
| # groups               | 2456               | 2453               | 2451               | 2456               | 2453               | 2451               |
| average obs. per group | 4.98               | 3.98               | 2.99               | 4.98               | 3.98               | 2.99               |
| Wald chi2              | 4118.06            | 3033.99            | 1918.22            | 4762.39            | 3830.72            | 2539.23            |
| Prob>chi2              | 0.00               | 0.00               | 0.00               | 0.00               | 0.00               | 0.00               |

**Panel C: Long-term debt (LTD) to total assets**

|                        | Specification 1    | Specification 2    | Specification 3    | Specification 4    | Specification 5    | Specification 6    |
|------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Lag 1 of LTD-TA        | 0.64***<br>(0.02)  | 0.67***<br>(0.02)  | 0.66***<br>(0.03)  | 0.77***<br>(0.02)  | 0.79***<br>(0.03)  | 0.76***<br>(0.04)  |
| Lag 2 of LTD-TA        |                    | 0.06***<br>(0.01)  | 0.06***<br>(0.01)  |                    | 0.06***<br>(0.01)  | 0.06***<br>(0.01)  |
| Lag 3 of LTD-TA        |                    |                    | -0.01<br>(0.01)    |                    |                    | -0.01<br>(0.01)    |
| Sales                  | -0.00<br>(0.00)    | -0.00<br>(0.00)    | -0.00<br>(0.00)    | 0.00<br>(0.00)     | 0.00<br>(0.00)     | 0.00<br>(0.00)     |
| Sales to TA            | -0.02***<br>(0.00) | -0.02***<br>(0.00) | -0.02***<br>(0.00) | -0.02***<br>(0.00) | -0.02***<br>(0.00) | -0.02***<br>(0.00) |
| Lag 1 of sales to TA   |                    |                    |                    | 0.01***<br>(0.00)  | 0.02***<br>(0.00)  | 0.02***<br>(0.00)  |
| NI to TA               | -0.26***<br>(0.01) | -0.27***<br>(0.01) | -0.25***<br>(0.01) | -0.26***<br>(0.01) | -0.27***<br>(0.01) | -0.25***<br>(0.01) |
| Lag 1 of NI to TA      |                    |                    |                    | 0.04***<br>(0.01)  | 0.02<br>(0.01)     | 0.00<br>(0.01)     |
| Fixed Assets to TA     | 0.38***<br>(0.02)  | 0.38***<br>(0.02)  | 0.39***<br>(0.02)  | 0.36***<br>(0.02)  | 0.36***<br>(0.02)  | 0.37***<br>(0.02)  |
| Lag 1 of FA to TA      |                    |                    |                    | -0.28***<br>(0.02) | -0.30***<br>(0.02) | -0.27***<br>(0.03) |
| Constant               | 0.04***<br>(0.01)  | 0.02**<br>(0.01)   | 0.02*<br>(0.01)    | 0.05***<br>(0.01)  | 0.03**<br>(0.01)   | 0.02<br>(0.01)     |
| # observations         | 12233              | 9775               | 7322               | 12233              | 9775               | 7322               |
| # groups               | 2456               | 2453               | 2451               | 2456               | 2453               | 2451               |
| average obs. per group | 4.98               | 3.98               | 2.99               | 4.98               | 3.98               | 2.99               |
| Wald chi2              | 4071.06            | 2691.10            | 1634.34            | 3855.62            | 2626.49            | 1628.15            |
| Prob>chi2              | 0.00               | 0.00               | 0.00               | 0.00               | 0.00               | 0.00               |

**Panel D: Loans from credit institutions (Loan) to total assets**

|                        | Specification 1    | Specification 2    | Specification 3    | Specification 4    | Specification 5    | Specification 6    |
|------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Lag 1 of Loan-TA       | 0.69***<br>(0.01)  | 0.73***<br>(0.02)  | 0.71***<br>(0.02)  | 0.83***<br>(0.02)  | 0.88***<br>(0.02)  | 0.85***<br>(0.03)  |
| Lag 2 of Loan-TA       |                    | 0.04**<br>(0.01)   | 0.04***<br>(0.01)  |                    | 0.03***<br>(0.01)  | 0.04***<br>(0.01)  |
| Lag 3 of Loan-TA       |                    |                    | -0.00<br>(0.01)    |                    |                    | -0.01<br>(0.01)    |
| Sales                  | -0.00<br>(0.00)    | -0.00<br>(0.00)    | -0.00<br>(0.00)    | 0.00<br>(0.00)     | 0.00<br>(0.00)     | 0.00<br>(0.00)     |
| Sales to TA            | -0.02***<br>(0.00) | -0.02***<br>(0.00) | -0.02***<br>(0.00) | -0.02***<br>(0.00) | -0.02***<br>(0.00) | -0.02***<br>(0.00) |
| Lag 1 of sales to TA   |                    |                    |                    | 0.01***<br>(0.00)  | 0.01***<br>(0.00)  | 0.01***<br>(0.00)  |
| NI to TA               | -0.12***<br>(0.01) | -0.12***<br>(0.01) | -0.12***<br>(0.01) | -0.11***<br>(0.01) | -0.12***<br>(0.01) | -0.12***<br>(0.01) |
| Lag 1 of NI to TA      |                    |                    |                    | 0.02***<br>(0.01)  | 0.01<br>(0.01)     | 0.00<br>(0.01)     |
| Fixed Assets to TA     | 0.40***<br>(0.01)  | 0.38***<br>(0.01)  | 0.39***<br>(0.02)  | 0.37***<br>(0.01)  | 0.35***<br>(0.01)  | 0.37***<br>(0.02)  |
| Lag 1 of FA to TA      |                    |                    |                    | -0.31***<br>(0.01) | -0.33***<br>(0.02) | -0.31***<br>(0.02) |
| Constant               | -0.02***<br>(0.01) | -0.03***<br>(0.01) | -0.04***<br>(0.01) | 0.02***<br>(0.01)  | 0.01<br>(0.01)     | 0.00<br>(0.01)     |
| # observations         | 12233              | 9775               | 7322               | 12233              | 9775               | 7322               |
| # groups               | 2456               | 2453               | 2451               | 2456               | 2453               | 2451               |
| average obs. per group | 4.98               | 3.98               | 2.99               | 4.98               | 3.98               | 2.99               |
| Wald chi2              | 6379.30            | 3942.87            | 2430.38            | 5900.16            | 3638.68            | 2273.99            |
| Prob>chi2              | 0.00               | 0.00               | 0.00               | 0.00               | 0.00               | 0.00               |

**Panel E: Trade credits (TC) to total assets**

|                        | Specification 1    | Specification 2    | Specification 3    | Specification 4    | Specification 5    | Specification 6    |
|------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Lag 1 of TC-TA         | 0.48***<br>(0.02)  | 0.45***<br>(0.02)  | 0.44***<br>(0.04)  | 0.51***<br>(0.02)  | 0.47***<br>(0.02)  | 0.44***<br>(0.04)  |
| Lag 2 of TC-TA         |                    | 0.09***<br>(0.01)  | 0.07***<br>(0.02)  |                    | 0.09***<br>(0.01)  | 0.07***<br>(0.02)  |
| Lag 3 of TC-TA         |                    |                    | 0.02<br>(0.01)     |                    |                    | 0.02<br>(0.01)     |
| Sales                  | 0.00***<br>(0.00)  | 0.00***<br>(0.00)  | -0.00*<br>(0.00)   | 0.00***<br>(0.00)  | 0.00**<br>(0.00)   | - 0.00**<br>(0.00) |
| Sales to TA            | -0.04***<br>(0.00) | -0.04***<br>(0.00) | -0.03***<br>(0.00) | -0.03***<br>(0.00) | -0.03***<br>(0.00) | -0.03***<br>(0.00) |
| Lag 1 of sales to TA   |                    |                    |                    | 0.02***<br>(0.00)  | 0.01***<br>(0.00)  | 0.01***<br>(0.00)  |
| NI to TA               | -0.16***<br>(0.01) | -0.16***<br>(0.01) | -0.16***<br>(0.01) | -0.17***<br>(0.01) | -0.17***<br>(0.01) | -0.18***<br>(0.01) |
| Lag 1 of NI to TA      |                    |                    |                    | -0.00<br>(0.01)    | -0.02***<br>(0.01) | -0.03***<br>(0.01) |
| Fixed Assets to TA     | -0.26***<br>(0.01) | -0.26***<br>(0.01) | -0.27***<br>(0.02) | -0.25***<br>(0.01) | -0.24***<br>(0.01) | -0.25***<br>(0.02) |
| Lag 1 of FA to TA      |                    |                    |                    | 0.13***<br>(0.01)  | 0.12***<br>(0.01)  | 0.11***<br>(0.02)  |
| Constant               | 0.25***<br>(0.01)  | 0.23***<br>(0.01)  | 0.24***<br>(0.01)  | 0.18***<br>(0.01)  | 0.17***<br>(0.01)  | 0.18***<br>(0.02)  |
| # observations         | 12233              | 9775               | 7322               | 12233              | 9775               | 7322               |
| # groups               | 2456               | 2453               | 2451               | 2456               | 2453               | 2451               |
| average obs. per group | 4.98               | 3.98               | 2.99               | 4.98               | 3.98               | 2.99               |
| Wald chi2              | 1300.17            | 867.54             | 583.82             | 1393.52            | 960.20             | 674.45             |
| Prob>chi2              | 0.00               | 0.00               | 0.00               | 0.00               | 0.00               | 0.00               |

**Panel F: Retained earnings (RE) to total assets**

|                        | Specification 1    | Specification 2    | Specification 3    | Specification 4    | Specification 5    | Specification 6    |
|------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Lag 1 of RE-TA         | 0.26***<br>(0.05)  | 0.11**<br>(0.06)   | 0.13<br>(0.09)     | 0.41***<br>(0.05)  | 0.56***<br>(0.09)  | 0.34***<br>(0.10)  |
| Lag 2 of RE-TA         |                    | -0.04***<br>(0.01) | -0.03*<br>(0.02)   |                    | 0.00<br>(0.01)     | -0.04***<br>(0.01) |
| Lag 3 of RE-TA         |                    |                    | -0.02*<br>(0.01)   |                    |                    | -0.00<br>(0.01)    |
| Sales                  | -0.00<br>(0.00)    | 0.00<br>(0.00)     | -0.00*<br>(0.00)   | -0.00<br>(0.00)    | -0.00*<br>(0.00)   | - 0.00**<br>(0.00) |
| Sales to TA            | -0.00<br>(0.00)    | -0.01***<br>(0.00) | -0.01**<br>(0.00)  | 0.00<br>(0.00)     | -0.00<br>(0.00)    | -0.00<br>(0.00)    |
| Lag 1 of sales to TA   |                    |                    |                    | -0.01***<br>(0.00) | -0.01***<br>(0.00) | -0.01***<br>(0.00) |
| NI to TA               | -0.50***<br>(0.01) | -0.51***<br>(0.01) | -0.53***<br>(0.01) | -0.31***<br>(0.01) | -0.27***<br>(0.02) | -0.32***<br>(0.02) |
| Lag 1 of NI to TA      |                    |                    |                    | 0.49***<br>(0.03)  | 0.61***<br>(0.06)  | 0.48***<br>(0.06)  |
| Fixed Assets to TA     | -0.07***<br>(0.01) | -0.06***<br>(0.01) | -0.07***<br>(0.02) | -0.04***<br>(0.01) | -0.05***<br>(0.01) | -0.05***<br>(0.02) |
| Lag 1 of FA to TA      |                    |                    |                    | 0.01<br>(0.01)     | 0.02<br>(0.01)     | 0.01<br>(0.02)     |
| Constant               | 0.15***<br>(0.01)  | 0.19***<br>(0.01)  | 0.19***<br>(0.01)  | 0.09***<br>(0.01)  | 0.07***<br>(0.02)  | 0.13***<br>(0.03)  |
| # observations         | 12233              | 9775               | 7322               | 12233              | 9775               | 7322               |
| # groups               | 2456               | 2453               | 2451               | 2456               | 2453               | 2451               |
| average obs. per group | 4.98               | 3.98               | 2.99               | 4.98               | 3.98               | 2.99               |
| Wald chi2              | 5113.67            | 4842.29            | 4032.48            | 7842.27            | 6153.97            | 5740.52            |
| Prob>chi2              | 0.00               | 0.00               | 0.00               | 0.00               | 0.00               | 0.00               |

Table 8:  $\sigma$ -convergence measured by the change of the variation coefficient over time

This table presents the results of a simple regression with a constant where the variation coefficient for the specified group is the dependent variable and time is the only independent variable. Time refers to the year after foundation. We take into account all nine years after foundation. The table reports the coefficients of the time variable. The significance level are indicated with \*, \*\*, \*\*\* for the 10%, 5%, and 1% level, respectively.

|                    | Share capital<br>to total assets | Total debt<br>to total assets | Long-term debt<br>to total assets | Loans<br>to total assets | Trade credit<br>to total assets | Retained earnings<br>to total assets |
|--------------------|----------------------------------|-------------------------------|-----------------------------------|--------------------------|---------------------------------|--------------------------------------|
| All companies      | 0.013***                         | 0.020***                      | 0.026***                          | 0.036***                 | 0.005**                         | -0.351*                              |
| Industry 1         | 0.008                            | 0.008*                        | 0.021***                          | -0.004                   | -0.007                          | -5.069                               |
| Industry 2         | 0.022**                          | 0.027***                      | 0.023***                          | 0.048***                 | 0.008***                        | -0.937*                              |
| Industry 3         | 0.016**                          | 0.021***                      | 0.026***                          | 0.034***                 | 0.010***                        | -0.244*                              |
| Industry 4         | 0.022**                          | 0.016***                      | 0.024***                          | 0.034*                   | -0.002                          | -0.705**                             |
| Industry 5         | 0.007                            | 0.015***                      | 0.028***                          | 0.035***                 | 0.000                           | -0.305**                             |
| Smallest companies | 0.021**                          | 0.012***                      | 0.014*                            | 0.023*                   | 0.005                           | -1.244*                              |
| Small companies    | 0.059***                         | 0.023***                      | 0.027***                          | 0.038***                 | 0.006*                          | -0.118                               |
| Larger companies   | 0.012                            | 0.024***                      | 0.023***                          | 0.039***                 | 0.002                           | -0.247**                             |
| Largest companies  | -0.011*                          | 0.023***                      | 0.034***                          | 0.039***                 | 0.011***                        | -0.288**                             |
| Paris              | 0.012                            | 0.003                         | -0.004                            | -0.095**                 | -0.044**                        | 1.032                                |
| Province           | 0.014***                         | 0.020***                      | 0.026                             | 0.037***                 | 0.006**                         | -0.322*                              |

Table 9: Impact of the financing decisions on the evolution of the firms: descriptive analysis

This table presents the evolution of all firms during with respect to size and performance measures during the first seven years after foundation. Based on their financing decisions in the first year after foundation, we group the firms into four groups. Depending on the financial ratio of the respective panel, we determine the 25%, 50% and 75% percentile in order to form the 4 groups. Panel A to panel C report the statistics for the following selected financing ratios: share capital to total assets, total debt to total assets, as well as loans from credit institutions to total assets. The mean and the standard deviation (in parentheses) are indicated for each year. In addition, we report the results of standard t-tests comparing the means between the four groups for each year. The results are indicated by \*, \*\*, \*\*\* for comparison between group 1 and group 2, with  $\circ$ ,  $\circ\circ$ ,  $\circ\circ\circ$  for comparison between group 1 and group 3, with  $\triangleright$ ,  $\triangleright\triangleright$ ,  $\triangleright\triangleright\triangleright$  for comparison between group 1 and group 4, with  $\bullet$ ,  $\bullet\bullet$ ,  $\bullet\bullet\bullet$  for comparison between group 2 and group 3, with  $\wedge$ ,  $\wedge\wedge$ ,  $\wedge\wedge\wedge$  for comparison between group 2 and group 4 and with  $\prime$ ,  $\prime\prime$ ,  $\prime\prime\prime$  for comparison between group 3 and group 4, indicating the 10%, 5% and 1% significance level, respectively. We only indicate the significance in the cell of the first of the two groups.

Panel A: Share capital to total assets

|                         | Group 1  | Group 2   | Group 3                   | Group 4    |
|-------------------------|--|---|---------------------------|------------|
| Growth 1-7 Total Assets | $\triangleright\triangleright\triangleright 0.66(1.39)^{\circ\circ\circ\circ}$ | $\wedge\wedge\wedge 0.88(1.72)^{\bullet\bullet\bullet}$ | 1.33(3.23)                | 1.48(2.91) |
| Growth 1-7 Sales        | $\triangleright\triangleright\triangleright 0.94(2.57)^{\circ\circ\circ}$      | $\wedge\wedge\wedge 1.05(2.50)^{\bullet\bullet\bullet}$ | 1.60(3.83) $\prime\prime$ | 2.23(5.34) |

Panel B: Total debt to total assets

|                         | Group 1  | Group 2                         | Group 3                         | Group 4    |
|-------------------------|--|---------------------------------|---------------------------------|------------|
| Growth 1-7 Total Assets | $\triangleright\triangleright\triangleright 1.46(3.58)^{\circ\circ\circ\circ}$ | 1.03(1.94)                      | 0.88(1.71)                      | 0.93(2.12) |
| Growth 1-7 Sales        | $\triangleright 1.49(4.12)^*$  | $\wedge\wedge\wedge 1.08(2.70)$ | 1.25(3.30) $\prime\prime\prime$ | 1.94(4.50) |

Panel C: Loans from credit institutions to total assets

|                         | Group 1   | Group 2                         | Group 3                         | Group 4    |
|-------------------------|---|---------------------------------|---------------------------------|------------|
| Growth 1-7 Total Assets | $\triangleright\triangleright\triangleright 1.58(3.48)^{\circ\circ\circ\circ\circ}$ | 0.86(1.55)                      | 1.02(1.89) $\prime\prime\prime$ | 0.70(1.88) |
| Growth 1-7 Sales        | 1.61(4.08) $^{**\circ}$   | $\wedge\wedge\wedge 1.04(3.17)$ | 1.23(2.87) $\prime\prime$       | 1.76(4.34) |

Table 10: Impact of the financing decisions on the evolution of the firms

This table presents the results of standard least square regressions. Our endogenous variables refer to the change between year 1 and year 7 of our variables which measure the evolution of the firms with respect to size (total assets and sales). We always report two specifications. In the first specification, we include all detailed control variables, i.e. the total assets in the first year after foundation in order to control for size effects, the fixed-asset ratio as well as the sales to total assets ratio in the first year after foundation in order to control for firm-specificities like the business-model, the production process etc., the net-income to total asset ratio of the first year after foundation in order to control for the initial possibilities of internal financing. In specification 2, we split the sample in two subsamples with respect to the control variable which is heavily correlated with the initial financing decision variable. We take the median of this variable as basis in order to form the two subsamples. We analyze the impact of three different initial financing ratios: the total debt to total assets in panel A, share capital to total assets in panel B and loans from credit institutions to total assets in panel C. In all regressions, we include industry dummies, region dummies, legal form dummies as well as creation year dummies. Coefficients are reported, Standard errors are reported in parentheses. \*, \*\* and \*\*\* indicate the 10%, 5% and 1% level, respectively.

**Panel A: Total debt to total assets**

|                            | Growth of total assets |                   |                    | Growth of sales    |                    |                    |
|----------------------------|------------------------|-------------------|--------------------|--------------------|--------------------|--------------------|
|                            | All firms              | NI to TA<br>small | NI to TA<br>large  | All firms          | NI to TA<br>small  | NI to TA<br>large  |
| Total Debt to total assets | -0.71**<br>(0.33)      | 0.65**<br>(0.28)  | -2.32***<br>(0.50) | -0.60<br>(0.48)    | 2.25***<br>(0.60)  | -1.31***<br>(0.51) |
| Total assets               | -0.00*<br>(0.00)       | -0.00<br>(0.00)   | -0.00<br>(0.00)    | -0.00***<br>(0.00) | -0.00*<br>(0.00)   | -0.00<br>(0.00)    |
| Sales to total assets 1    | 0.27***<br>(0.06)      | 0.17**<br>(0.07)  | 0.36***<br>(0.09)  | -0.92***<br>(0.08) | -1.53***<br>(0.14) | -0.39***<br>(0.09) |
| FA to total assets 1       | -0.30<br>(0.28)        | 0.23<br>(0.30)    | -0.90*<br>(0.51)   | 0.16<br>(0.42)     | -0.09<br>(0.64)    | 0.46<br>(0.51)     |
| NI to total assets 1       | -0.17<br>(0.36)        |                   |                    | -2.50***<br>(0.52) |                    |                    |
| Industry dummies           | Yes                    | Yes               | Yes                | Yes                | Yes                | Yes                |
| Region dummies             | Yes                    | Yes               | Yes                | Yes                | Yes                | Yes                |
| Legal form dummies         | Yes                    | Yes               | Yes                | Yes                | Yes                | Yes                |
| Creation year dummies      | Yes                    | Yes               | Yes                | Yes                | Yes                | Yes                |
| Number of observations     | 2183                   | 1091              | 1092               | 2183               | 1091               | 1092               |
| R2                         | 0.0382                 | 0.0515            | 0.0684             | 0.1111             | 0.1624             | 0.0545             |
| Prob > F                   | 0.00                   | 0.01              | 0.00               | 0.00               | 0.00               | 0.00               |

**Panel B: Share capital to total assets**

|                         | Growth of total assets |                   |                    | Growth of sales    |                    |                    |
|-------------------------|------------------------|-------------------|--------------------|--------------------|--------------------|--------------------|
|                         | All firms              | NI to TA<br>small | NI to TA<br>large  | All firms          | NI to TA<br>small  | NI to TA<br>large  |
| Share capital to TA     | 2.04***<br>(0.35)      | 1.50***<br>(0.32) | 3.52***<br>(0.82)  | 1.38***<br>(0.52)  | 1.24*<br>(0.68)    | 3.18***<br>(0.83)  |
| Total assets            | -0.00**<br>(0.00)      | -0.00*<br>(0.00)  | -0.00*<br>(0.00)   | -0.00***<br>(0.00) | -0.00**<br>(0.00)  | -0.00*<br>(0.00)   |
| Sales to total assets 1 | 0.28***<br>(0.06)      | 0.22***<br>(0.07) | 0.31***<br>(0.09)  | -0.92***<br>(0.08) | -1.44***<br>(0.14) | -0.43***<br>(0.09) |
| FA to total assets 1    | -0.30<br>(0.28)        | 0.35<br>(0.30)    | -1.45***<br>(0.50) | 0.15<br>(0.41)     | 0.27<br>(0.63)     | 0.09<br>(0.50)     |
| NI to total assets 1    | 0.85***<br>(0.27)      |                   |                    | -1.72***<br>(0.40) |                    |                    |
| Industry dummies        | Yes                    | Yes               | Yes                | Yes                | Yes                | Yes                |
| Region dummies          | Yes                    | Yes               | Yes                | Yes                | Yes                | Yes                |
| Legal form dummies      | Yes                    | Yes               | Yes                | Yes                | Yes                | Yes                |
| Creation year dummies   | Yes                    | Yes               | Yes                | Yes                | Yes                | Yes                |
| Number of observations  | 2183                   | 1091              | 1092               | 2183               | 1091               | 1092               |
| R2                      | 0.0507                 | 0.0662            | 0.0657             | 0.1133             | 0.1539             | 0.0615             |
| Prob > F                | 0.00                   | 0.00              | 0.00               | 0.00               | 0.00               | 0.00               |

**Panel C: Loans from credit institutions to total assets**

|                         | Growth of total assets |                   |                   | Growth of sales    |                    |                    |
|-------------------------|------------------------|-------------------|-------------------|--------------------|--------------------|--------------------|
|                         | All firms              | FA to TA<br>small | FA to TA<br>large | All firms          | FA to TA<br>small  | FA to TA<br>large  |
| Loans to total assets   | -0.66*<br>(0.34)       | -0.11<br>(0.78)   | -0.75**<br>(0.32) | -1.85***<br>(0.50) | -0.66<br>(0.89)    | -1.77***<br>(0.59) |
| Total assets            | -0.00*<br>(0.00)       | -0.00<br>(0.00)   | -0.00*<br>(0.00)  | -0.00***<br>(0.00) | -0.00*<br>(0.00)   | -0.00***<br>(0.00) |
| Sales to total assets 1 | 0.24***<br>(0.06)      | 0.21**<br>(0.08)  | 0.29***<br>(0.07) | -0.97***<br>(0.08) | -0.70***<br>(0.10) | -1.33***<br>(0.13) |
| NI to total assets 1    | 0.26<br>(0.27)         | 1.17***<br>(0.42) | -0.67**<br>(0.33) | -2.35***<br>(0.39) | -1.07**<br>(0.48)  | -3.81***<br>(0.60) |
| FA to total assets 1    | 0.00<br>(0.34)         |                   |                   | 1.11**<br>(0.49)   |                    |                    |
| Industry dummies        | Yes                    | Yes               | Yes               | Yes                | Yes                | Yes                |
| Region dummies          | Yes                    | Yes               | Yes               | Yes                | Yes                | Yes                |
| Legal form dummies      | Yes                    | Yes               | Yes               | Yes                | Yes                | Yes                |
| Creation year dummies   | Yes                    | Yes               | Yes               | Yes                | Yes                | Yes                |
| Number of observations  | 2183                   | 1091              | 1092              | 2183               | 1091               | 1092               |
| R2                      | 0.0378                 | 0.0404            | 0.0683            | 0.1161             | 0.0941             | 0.1730             |
| Prob > F                | 0.00                   | 0.00              | 0.00              | 0.00               | 0.00               | 0.00               |

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