THE LONG-TERM HORIZON OF FAMILY FIRMS
IN M&A: THE IMPACT ON RESEARCH
INVESTMENTS AND DEBT MATURITY
STRUCTURE

Fabio Quarato*

*Department of Management and Technology, Bocconi University, Italy

Abstract

Despite family business is the most widespread ownership structure worldwide, there is a lack of evidence on the impact of external growth strategies on their capital structure. Although most researches showed that the risk of losing control leads family firms to a lower level of debt, this article sheds new light on debt maturity structure and innovation investments when family firms embrace an acquisition path. In particular, I argue that family firms will use bank debt to a lower extent than nonfamily firms when they embrace an external growth strategy and, as a consequence, they are more likely to avoid cuts in research investments and focus more on long-term debt. These hypotheses are consistent with agency theory arguments, as family principals exercise a more effective monitoring due to the larger ownership stake and the desire to pass the company on the offspring in profitable conditions.

By having access to a panel data, I analyse acquisitions carried out in the period 2000-2013 by all Italian companies with turnover exceeding 50 million Euros, and the results support the long-term perspective of family firms. In particular, family firms will use less bank debt to finance acquisitions, avoiding cutting research investments and relying on a more balanced debt maturity structure.

Keywords: Acquisition, Family Firm, Research Investments, Debt Maturity Structure

1. INTRODUCTION

The present work aims to analyse the impact of acquisitions on the financial structure of medium and large Italian companies, showing differences between family-owned companies and their nonfamily counterparts. The relationship between M&A activities and the financial structure of the acquiring companies has not been thoroughly investigated in the literature. Most of the studies have focused their attention mainly on post-deal performance or the strategic arguments underlying this choice. Indeed, acquisitions offer an immediate entry mode into a new market, a larger slice of markets already served or the opportunity to diversify business activities. The opportunity to develop synergies and increase the overall company value makes this strategy one of the most attractive ways to start a growth path (Cornett, McNutt and Tehranian, 2006; Healy et al., 1992; Lubatkin, 1983; Ramaswamy and Waegelein, 2003).

Nevertheless, the market for corporate control in Italy is one of the less developed in the European landscape. According to KPMG, the Italian market of M&A accounts for 4% (in terms of values) of the European one. Furthermore, the effect of the economic crisis has been widely recorded in the numbers of the market control: the value of acquisitions carried out in the Italian market
collapsed by 77% at the peak of the crisis (from 495 million euros in 2007 to 34 in 2009), with a slight recovery in subsequent years\(^{2}\). Although the crisis has significantly impacted on M&A market, KPMG data show a lower incidence of the Italian market compared to other European countries: in 2015 the Italian M&A market accounts for 6% (in terms of value) and 5% (in terms of a number of deals) in Europe.

The reasons behind this reluctance towards the market for acquisitions may be traced either in a deficit of management skills or the lack of funds. These explanations are especially true for family firms, where top managers are often selected within the family, with the consequent risk of nepotism (Bennedsen et al., 2007) and family executive entrenchment (Bertrand and Schoar, 2006; Morck and Yeung, 2003). Furthermore, the lack of resources may arise also from financial shortage due to the reluctance of family principals to share the control of the company (Gómez-Mejía et al., 2011; Ward, 2004). Moreover, given the attention paid to retain control on the company and the desire to transfer it to the heirs (Zellweger and Nason, 2008), family firms are more prone to self-finance rather than the use of external funding. Indeed, the risk increases with leverage due to the higher probability of bankruptcy and the consequent risk of losing control (Andersen and Reeb, 2003; Schmid, 2013). Moreover, other non-financial reasons may explain why families are risk-adverse. For example, their reputation may be damaged in case of restructuring or financial distress (Díaz-Díaz et al., 2016).

The goal of this work is threefold. First, it aims to measure whether and to what extent family firms will use lower bank debt than nonfamily firms to finance acquisitions, raising funds by an increase of equity. Second, the study tests whether the stronger financial structure combined with the more long-term orientation of family firms (Arregle et al., 2007; Le Breton-Miller and Miller, 2006; Miller and Le Breton-Miller, 2005; Zellweger, 2007) may mitigate the cut in investments that usually follows an acquisition. Indeed, some researchers found that there will be a trade-off between investments in acquisitions and innovation due to the pressure to repay debt (Hitt et al., 1991a). Thus, managers may be forced to cut investments, especially those with an impact on the long term such as R&D expenses (Hall, 1990). As a consequence, I hypothesize that family firms are more able to avoid cuts in innovation when embracing an external growth strategy. This view is consistent with agency theory arguments. Previous research has shown that family owners are often in a better position to monitor closely managers’ behaviour (Gómez-Mejía et al., 2001; Morck and Yeung, 2003), and the consequent reduction in agency costs will lead to higher levels of R&D intensity and productivity (Hall, 2002; Block, 2012). Also according to Anderson et al. (2012), family firms are more likely to make strategic decisions that increase long-term investment.

Finally, the characteristics of the controlling shareholders may affect also the debt maturity structure (Díaz-Díaz et al., 2016), I extend these arguments and state that family firms are more able to avoid cuts in research investments as they rely on a more balanced debt maturity structure. Thus, it is more likely that there will be a positive relationship between long term debt and family controlled firms when acquisitions occur.

I address these questions by analysing acquisitions carried out in the period 2000-2013 by the Italian companies with turnover exceeding 50 million Euros. The Italian context offers a unique setting to investigate the capital structure decisions for at least two reasons: first, it has a less developed capital market; second, Italian family firms have historically adopted a high-debt policy as a source of financing (Amore et al., 2011), while in other countries family firms are more likely to maintain a low leverage (see, for instance, Bach, 2010 for France).

This study contributes to filling some empirical gaps on the interaction literature between sources of funding and investments in family firms. First, this is one of the first studies to investigate the relationship between M&A activities and leverage, as well as the effect of these financial choices on innovation investments. Second, it extends the existing evidence on financial stability and debt capacity showing that ownership structure (e.g. family owned firms) can affect the profitability of a company rather than the use of external funding. Indeed, the risk increases with leverage due to the higher probability of bankruptcy and the consequent risk of losing control (Andersen and Reeb, 2003; Schmid, 2013). Moreover, other non-financial reasons may explain why families are risk-adverse. For example, their reputation may be damaged in case of restructuring or financial distress (Díaz-Díaz et al., 2016).

2. THE FINANCIAL STRUCTURE OF ITALIAN FIRMS

The assessment of a financial system in its role to support investment activities of the companies starts from the recognition of the capitalism model. They are usually distinguished by the so-called "network oriented system" and "market oriented system" (Weimer and Pape, 1999). In the first group there are economies with a small portion of listed companies, a high concentration of ownership, and a low development of the equity market, and a critical issue behind the growth of financial markets is the investor protection. According to La Porta and colleagues (1998), the systematic differences between countries in terms of laws and legal institutions - due to their historical origin of the legal system - exert a very important role in the development of financial markets. Indeed, whereas there is a better protection of outside investors, external lenders are more likely to pay more for financial assets such as equity as the probability that investment returns are distributed and not retained by owners is greater (La Porta et al., 1999b; 2002).

In most countries, and in particular in Italy, large companies are often characterized by a very concentrated ownership structure (Barca and Becht, 2001; Minichilli, 2012), and it is likely that the majority shareholders have the power to expropriate minority stakeholders (La Porta et al., 1999a). In this case, the main agency problem is not the potential...
failure of external managers in serving minority shareholders (Berle and Means, 1932), but the expropriation of minority rights by the company’s blockholder (Shleifer and Vishny, 1997).

The Italian system has only recently undergone substantial changes with regards to protection of minority shareholders, as a result of financial scandals such as Parmalat and Cirio (e.g. the law 265/2005 on savings entered into force in 2006). These changes, however, have not accelerated so far the development of the stock market. According to the London Stock Exchange, the numbers of Italian listed firms passed from 275 in 2005 to 387 in 2016. While the stock market is still underdeveloped in relation to production and saving capacity, on the other hand, credit relationships are not concentrated in a narrow number of intermediaries, especially for medium and large firms (D’Auria et al., 1999). For this reason, many authors usually cite the Italian model of capitalism as “hybrid” (Minichilli, 2012; Zattoni, 2006; Weimer and Pape, 1999). In particular, two features seem to distinguish the financial structure of Italian firms and their access to sources of funding: the role of trade credit and the extensive use of the banking system.

The most recent reports provided by the Bank of Italy show that the trade credit is the major source of short-term indirect financing channel in Italy21. From the transaction cost point of view, the supplier may have an advantage compared to the traditional lenders in the monitoring of the customers, in getting information and investigating their reliability and, if necessary, in forcing their payment. Moreover, in the event of debtor insolvency, the more durable the goods supplied by the vendor-financing, the greater the guarantee of recovery of the amount (Petersen and Rajan, 1997).

The second peculiarity of Italian system can be detected in the extensive use of the banking system as a source of financing (D’Auria et al., 1999), which usually leads to entertaining relations with more than one bank. There are several reasons why both firms and banks find more convenient this system of “multiple” credit. From the firm point of view, it helps to solve potential difficulties in obtaining resources; from the bank side, risks may be shared among banks reducing individual losses in case of firm financial distress (D’Auria et al., 1999). Thanks to this peculiar situation, Italian companies are among those that make more use of the banking system in order to get funding.

2.1. Acquisitions and Their Impact on Leverage and Equity Capital

According to the above considerations, the study of firm’s capital structures around acquisitions may shed new light on funding decisions of Italian companies. Starting from the crucial role played by the banking system to cope with an acquisition, I wonder whether acquisitions may impact in a different way on financial structures between family firms and nonfamily firms.

Most of the previous studies focused on the characteristics of the target companies. For instance, Song and Walkling (1993) showed that target companies with latent debit capacity or liquidity in excess are particularly attractive since acquiring companies can finance the acquisition with resources of the target company. On the acquiring side, Bae and Chung (2014) showed that zero-leverage firms would prefer to acquire target companies with zero or low debt in order to preserve their zero leverage. Moreover, despite the greater managerial discretion in the hands of their managers, zero-leverage targets are more likely to be acquired only when they are the most value-enhancing acquisitions. These results are in line with that of Crespi and Martin-Oliver (2015), which state that the target leverage ratio of family firms is smaller than that of nonfamily firms.

On the contrary, few studies examined how capital structure decisions are associated with external growth strategies. Among these, Harford et al. (2009) found that acquiring companies pay more attention to their target capital structure, and managers are affected by these targets even when deviations occur to finance acquisitions. In particular, they state that acquiring companies are more likely to pay with cash when firms are underleveraged or closed to their target leverage. Moreover, they are used to adjust their post-acquisition financial structure in case of important changes to their leverage occurred. Also, Graham and Harvey (2001) suggested that banks are likely to pay more attention to the maintenance of a target level of leverage, and Uysal (2011) states that over-leveraged firms are less likely to carry out acquisitions.

In this picture, many authors agree in asserting that family firms are more likely to be risk-averse than nonfamily counterparts (Gómez-Mejía et al., 2011) as families are usually under-diversified investors and their wealth is concentrated in a single enterprise (Anderson and Reeb, 2003). Consistent with these arguments, some authors found that family firms are reluctant to invest part of their wealth into international projects as they are less available to open the shareholding to minority shareholders or to leverage the company (Gómez-Mejía et al., 2011; Graves and Thomas, 2008; Kontinen and Ojala, 2010).

Moreover, given the attention paid to retain control and the desire to transfer the company to offspring (Casson, 1999; Zellweger and Nason, 2008), family firms are more prone towards self-financing rather than external funding, which also involves their personal resources. Indeed, control risk increases with leverage because of the higher probability of bankruptcy, and family firms are debt averse due to the risk of losing control (Mishra and McConaughy, 1999).

In line with these arguments, Gómez-Mejía et al. (2010) found that family firms diversify less internationally than nonfamily firms. Moreover, Miller et al. (2010) found a negative relationship between family firms and acquisition behaviour, both in terms of volume and value, as a consequence of their SEW preservation logic. SEW refers to non-financial aspects of the firm (Gómez-Mejía et al., 2007), comprising family’s affective needs, such as the satisfaction of psychological needs of belonging and identification with the company (Kepner, 1983), the perpetuation of the family’s identity as well as the protection of the founder’s heritage across generations (Casson, 1999).

The impact of SEW on long-term decisions provided so far mixed results. For instance, Gómez-Mejía et al. (2007) stated that family firms are likely to place a high priority on maintaining family control even if this means accepting an increased risk of poor firm performance or act more
conservatively. Other empirical research showed that family firms invest lower than nonfamily firms (Anderson et al., 2012; Block, 2012). On the contrary, Berrone et al. (2010) have shown that family firms make decisions oriented to the long term in environmental strategies, while Chrisman and Patel (2012) revealed that family firms increase R&D investment when performance falls below that of competitors. More recently, using the concept of mixed gambles, Martin et al. (2013) revisited the family firm’s R&D investment decisions, showing that these gambles may have the potential for gain and loss outcomes.

In spite of these mixed results, all scholars agree that a key priority for family entrepreneurs is to maintain control of the company. Indeed, this study aims to investigate to what extent family firms use debt to finance acquisitions, and not the different propensity to undertake acquisitions among family and non-family peers. A lower use of debt is also consistent with agency predictions in family firms. Indeed, family firms are distinguished by higher risk aversion, long-term investment horizons, and concern for reputation, which helps to reduce agency conflicts between shareholders and creditors (Faccio et al., 2011). Thus, according to the above considerations, I state as follows:

Hypothesis 1a: family firms will use bank debt to a lower extent than nonfamily firms during acquisition processes

As a corollary, I argue that family firms are more likely to finance acquisitions through equity capital. Indeed, from a management perspective, debt is a mechanism to control opportunistic behavior in the use of firm resources (Gonzales et al., 2011), but in family firms the misalignment of interests and risk between shareholders and managers is lower (Schulze et al., 2001), and the family control will lead to a more efficient monitoring and disciplining action on the firm’s managers (Demsetz and Lehn, 1985), reducing over-investment carried out by managers pursuing an empire-building strategy (Jensen, 1986). The reduction in agency costs from the separation of ownership and control, the family’s interest in the long-term firm survival, as well as the concern for family reputation contributes to avoiding opportunist behaviors (Díaz-Díaz et al., 2016). Thus, I argue as follows:

Hypothesis 1b: family firms will use equity to a greater extent than nonfamily firms during acquisition processes

2.2. Acquisitions and Their Impact on Research Investments

Most scholars state that acquisitions have a negative impact on innovation, in particular on investments in R&D (Hitt et al., 1991a; 1996). On the other side, some scholars argue the opposite, highlighting the potential for innovation (see, for instance, Capon and Glazer, 1987; Prabhu et al., 2005). Moreover, some authors argue that in some industries the risk of investing in innovation is lower than the risk of not investing (Palmer and Wiseman, 1999).

Among the several explanations of their negative impact on innovation, many authors focused the attention on the amount of investments required by acquisitions. Although several economists since the work of Modigliani and Miller (1958) sustain that investment policies should not be influenced by the choice of financial structure, empirical evidence shows the contrary.

Researchers found that firms that have to sustain considerable debt to finance acquisitions, and there will be a trade-off between investments in acquisitions and investments in other areas, such as advertising and R&D (Hitt et al., 1991a). Others found a positive relationship between R&D investments and long-term performance, suggesting that this trade-off may have significant consequences (Franko, 1989). Finally, some researchers argue that managers distract attention from the task of innovation to manage post-acquisition phases (Hitt et al., 1990). For these reasons, acquisitions have been seen as “poison pills” for innovation (Hitt et al. 1991b). Although Capon and Glazer (1987: 6) state that "a well-planned policy of external acquisition affords technology strategy options that a ‘go-it-alone’ attitude would preclude", often firms have to choose whether to grow either through acquisitions or through innovations due to resource constraints (Prabhu et. al, 2005).

To sum up, a lot of attention has been devoted to investments in R&D. Indeed, due to the higher impact that acquisition have on them. Indeed, due to the debt ratio increase, managers are under pressure to use the cash flow to repay debt. Thus, they may be forced to cut investments, especially those with an impact on the long term such as R&D. According to Hall (1990), there are two arguments implying that debt increase will be associated with cuts in R&D investments, although with different implications in terms of social benefits.

The first view starts from the assumption that financial markets are efficient, but managers do not always act in the interest of shareholders (with the consequent agency costs). Since long term debt requires financial discipline, the increase in financial leverage tends to be seen positively only in those sectors with low rates of innovation. Thus, a decrease in R&D investment occurs only after leveraged acquisitions.

The second view states that financial markets are short-sighted and not able to evaluate properly long-term investments. As a result, companies will be undervalued and attractive for a takeover. After the takeover, even potentially valuable projects in R&D will be cut to support the interest payments on debt taken out to finance the acquisition (Hall, 1990).

Although these two views lead to different implications, both of them suggest that the increase in debt will be followed by cuts on investments. In this picture, family firms are more likely to have an advantage. Thanks to their long-term orientation (Arregle et al., 2007; Le Breton-Miller and Miller, 2006; Miller and Le Breton-Miller, 2005; Zellweger, 2007), they may mitigate this problem reducing to a lower extent the investments in the short-term in the case of acquisitions. Indeed, due to their uncertain returns, R&D investments require a long-term horizon (Block, 2012).

This view is consistent with classic agency theory arguments. Family firms may exercise a more effective monitoring due to the large ownership stake (Demsetz, 1988) and the desire to pass the company on the offspring in profitable conditions (Casson, 1999). Other researches show that family principals are often in a better position to monitor closely managers’ behaviour (Gómez-Mejia et al., 2001; Morck and Yeung, 2003), and the consequent
reduction in agency costs will lead to higher levels of R&D intensity and productivity, (Hall, 2002).

Due to the longer term horizon and the stronger alignment of ownership and management, most other research exhibits a higher level of R&D intensity among family firms (Anderson and Reeb, 2003). These arguments found also support by Chrisman and Patel (2012), at least when the performance of family firms are below aspiration levels. In these cases, family goals and economic goals tend to converge. Extending these arguments, I state that family firms are able to avoid cuts in innovation strategy which they embrace an external growth strategy. Indeed, as shown above, family firms are more likely to use lower bank debt, with a consequent less pressure to cut investments in order to repay debt. Indeed, leverage exerts a negative effect on the level of investments due to agency cost of debt (Dang, 2011). Thus, I state as follows: **Hypothesis 2:** family firms are more likely to avoid cuts in research developments than nonfamily firms during acquisition processes.

### 2.3. Acquisitions and Their Impact on Debt Maturity Structure

As stated above, when family firms decide to take part in an acquisition process, their long-term vision allows avoiding cuts in expenses, especially long-term expenses such as research investments. To do this, a more balanced debt maturity structure is required. As a consequence of their SEW priorities (Gomez-Mejia et al., 2011), successful family firms compete on the basis of their longer term relationships and time horizons (Arregle et al., 2007; Miller et al., 2008, 2009). Thus, it is more likely that there is a positive relationship between long term debt and family controlled firms when acquisitions occur.

When family members serve as managers, they can be seen as a "steward" of the company and their interests are perfectly aligned with those of the company itself. Steward theorists argue that family members identify with their company, seen as an extension of their own well-being (Gomez-Mejia et al., 2003). Also, Neckebrouck et al. (2017) suggest that family firms are better financial stewards than nonfamily firms. Moreover, altruism may also be connected to efficiency (Becker, 1981), and in the last decades, this school of thought has received more and more attention (Miller et al., 2007; 2011). One of the corollaries of the stewardship theory is just their consolidated trust with external stakeholders (Le Breton-Miller and Miller, 2009), given their propensity to compete on relational basis rather than transactional (Miller and Le Breton-Miller, 2005). Their social capital may contribute to stabilize profits even during financial turmoil (Minniti et al., 2013) as family firms may be supported by loyal stakeholders (Miller et al., 2009) and better access to credit (D’Aurizio et al., 2015).

The above arguments are also consistent with agency predictions. The longer time horizon may lead to overcome many of the difficulties faced by the companies with an overlap between ownership and control. Agency costs are minimized in narrowly controlled firms, such as family controlled firms, due to a better alignment of interests between owners and managers (Morck and Yeung, 2003; Schulze et al., 2003). Furthermore, Shyu and Lee (2009) suggest that even conflicts between controlling and minority shareholders in family firms are less costly than those between managers and shareholders in nonfamily firms.

Also, Anderson et al. (2003) argue that family members have the incentive and the power to monitor managers, reducing managerial opportunism. Indeed, Lee (2006) found that family firms show higher profitability than nonfamily peers when family members serve as managers. Finally, Maury (2006) argues that an active presence of the controlling family has a positive effect on profitability in family businesses, especially when they operate in mature economies such as those of Western Europe.

Moreover, when family members oversee the company, the concerns for liquidity risk are more likely to prevail, and more long-term debt is used (Shyu and Lee, 2009). On the contrary, as stated by Jensen and Meckling (1976), agency problems occur whereas control and ownership are separated, and the attention to the balance and sustainability of long-term debt may no longer be of primary importance.

Finally, some authors argue that short-term debt is typically used to discipline the behaviour of the firm (Alcock et al., 2012). Thus, in family firms, it may play a less important role given the limited agency problems. The above arguments suggest that the family principal is associated with long-term debt (Shyu and Lee, 2009). This view is also consistent with other recent studies, which indicate that family firms get better access to long-term debt (Schmid, 2013), even when exercising control by pyramid structures (Diaz-Diaz et al., 2016).

To sum up, all the above implications emphasize the peculiar incentive structure of family firms that results in fewer agency conflicts of debt and leads to a long-term maturity structure. I argue that this foresight may be exacerbated when family firms decide to carry out a path of acquisitions. Thus, I state as follows: **Hypothesis 3:** there is a positive relationship between family ownership and long-term debt in acquiring firms.

### 3. RESEARCH METHODOLOGY

The sample is composed of Italian companies with sales exceeding 50 million euros in the fiscal year 2012, a sales threshold of typical medium and large-sized company in Italy. This threshold is a more appropriate setting to investigate external growth choices compared to smaller firms, often characterized by internal growth strategies.

Following existing works, I defined as family-controlled those private firms in which one or two families own an absolute majority (i.e. 50%) of shares. The rationale for using such threshold is that, because privately held firms in Italy are characterized by a concentrated ownership structure (Amore et al., 2011), a 50% stake is often needed to achieve control. However, consistent with other studies, this threshold is reduced to 25% for firms listed on the Stock Exchange (e.g. Amore et al., 2011; Andries, 2008; Miller et al., 2013).

For each company in the sample, I collected two types of data for the period 2000-2013: accounting data from AIDA, the Italian provider of the Bureau van Dijk databases, and acquisitions data from Zephyr, a Bureau van Dijk European Databases which contains information on over 160 million companies worldwide. Then, I merged the two data sources and dropped observations with missing
values in the key explanatory variables, observations with negative or zero book value of assets. The final result is a panel data set, which allows monitoring the behaviour of each entity from 2000 to 2013.

Fixed effects allowed to control for variables that cannot be observed or measured, such as cultural differences in business practices between different companies, as well as variables that change over time but not between the entities (e.g. government policies, changes international, etc.). Thus, control variables such as industry or location were omitted. Moreover, the Hausman test was statistically significant, showing that fixed-effects method is the most appropriate.

### 3.1. Sample

Overall, our sample contains comprehensive accounting information for 4,100 family and 2,968 nonfamily firms for the span period 2000-2013. Overall, 1,536 acquisitions were carried out over the period analysed, and nearly 90% of companies have never made acquisitions between 2000 and 2013. There are no significant differences - in percentage - between family and nonfamily firms. The Table 1 below shows the breakdown between family and nonfamily firms.

<table>
<thead>
<tr>
<th></th>
<th>N firms</th>
<th>N Acquiring firms</th>
<th>% of Acquiring firms</th>
<th>N Acquisitions</th>
<th>% Acquisitions</th>
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<tbody>
<tr>
<td>Family</td>
<td>4,100</td>
<td>419</td>
<td>10,2%</td>
<td>858</td>
<td>55,1%</td>
</tr>
<tr>
<td>Nonfamily</td>
<td>2,968</td>
<td>300</td>
<td>10,1%</td>
<td>698</td>
<td>45,1%</td>
</tr>
<tr>
<td>Total</td>
<td>7,068</td>
<td>719</td>
<td>10,2%</td>
<td>1,556</td>
<td>100,0%</td>
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</table>

Furthermore, looking at the number of acquisitions along the period 2000-2013 in Table 2, it is possible to note that the effect of the crisis, albeit slightly delayed, had a significant impact on the total number of acquisitions, which has not yet fully returned to the maximum value of 2008.

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</thead>
<tbody>
<tr>
<td>Family</td>
<td>64</td>
<td>71</td>
<td>65</td>
<td>51</td>
<td>66</td>
<td>62</td>
<td>73</td>
<td>60</td>
<td>74</td>
<td>56</td>
<td>61</td>
<td>62</td>
<td>65</td>
<td>56</td>
</tr>
<tr>
<td>Nonfamily</td>
<td>54</td>
<td>51</td>
<td>49</td>
<td>50</td>
<td>46</td>
<td>57</td>
<td>49</td>
<td>58</td>
<td>64</td>
<td>49</td>
<td>41</td>
<td>41</td>
<td>49</td>
<td>32</td>
</tr>
</tbody>
</table>

### 3.2. Dependent Variables

The dependent variable used in the first model concerns the debt towards financial institutions (bank debt). It has been calculated as the incidence of bank debt on the total turnover of the company. Moreover, to estimate the source of funding, in the second model, I used the increase in equity funds (equity increase). With regard to the debt maturity, the long-term debt ratio has been calculated using the ratio of total debt due in more than a year on the total debt.

With regard to innovation, research investments have been calculated as the extent to which the research investment for products and processes' renewal (namely, research and patents) impact on total sales (research investments). The measurement of innovative activity is a variable not directly observable and therefore requires the use of synthetic indicators, which mainly affects the input of the generation process of innovation as an investment in research or the output of the innovation process as the numbers of patents. For this purpose, a greater use was made of the investments in R&D because it seems more appropriated to use an indicator of technical progress that is the cause of such phenomenon rather than the effect (Griliches and Mairesse, 1983).

### 3.3. Independent Variable

The independent variable used in all subsequent models consists of the number of acquisitions carried out in a time span of three years. This variable was constructed starting from the total number of acquisitions per year as the sum of acquisitions concluded in the current year and the two previous ones. Therefore, observations for the years 2000 and 2001 were not reported, and the first year of analysis is 2002, which includes acquisitions carried out in the three-year period 2000-2002.

The choice to use this methodology (e.g. the total number of acquisitions carried out in 3 years), is due to the nature of this strategic choice. In most cases, when a company decides to grow through external ways, it is more likely that the number of acquisitions put in place will be higher than one (in the same year or in a short period of time).

Therefore, if a company makes more than one acquisition, the incidence of external financial sources is expected to be higher, and a number of acquisitions could have an impact on the financial structure, especially in the planning of short versus long term debt. Accordingly, to this reason, the simple number of acquisitions per year would not be effective, as the impact on the short-term debt for this type of operations is not immediate, and it is necessary to embrace a longer time horizon to catch the overall effects on the financial structure.

### 3.4. Control Variables

As in previous studies on family firms, the following controls were included in the analyses: firm size, measured as the natural logarithm of the firm’s sales, and firm age, computed as the logarithmic transformation of the number of years since the firm’s founding (Anderson and Reeb, 2003; Miller et al., 2007). The following control variables that may influence acquisitions decisions were inserted: listing status, a dummy variable equal to 1 if the company is listed, and 0 otherwise; liquidity ratio, calculated as the ratio of current assets to current liabilities. The Tables 3 and 4 below show the summary statistics and the correlation matrix.
Table 3. Summary statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>S.D.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>At least one acquisition</td>
<td>.013</td>
<td>.113</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Number of acquisitions</td>
<td>.014</td>
<td>.153</td>
<td>0</td>
<td>14</td>
</tr>
<tr>
<td>Family firm</td>
<td>.167</td>
<td>.195</td>
<td>0</td>
<td>.999</td>
</tr>
<tr>
<td>Equity</td>
<td>.054</td>
<td>.161</td>
<td>.499</td>
<td>.499</td>
</tr>
<tr>
<td>Long-term debt ratio</td>
<td>.150</td>
<td>.196</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Debt ratio t-1</td>
<td>1.712</td>
<td>4.015</td>
<td>0</td>
<td>79.44</td>
</tr>
<tr>
<td>Acquisitions of the last 3 years</td>
<td>.047</td>
<td>.329</td>
<td>0</td>
<td>2.0</td>
</tr>
<tr>
<td>Ln Size</td>
<td>11.573</td>
<td>1.208</td>
<td>.813</td>
<td>18.635</td>
</tr>
<tr>
<td>Ln Age</td>
<td>2.783</td>
<td>.968</td>
<td>0</td>
<td>7.607</td>
</tr>
<tr>
<td>Listing Status</td>
<td>.022</td>
<td>.148</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Liquidity Ratio</td>
<td>1.081</td>
<td>.772</td>
<td>0</td>
<td>9.97</td>
</tr>
</tbody>
</table>

Table 4. Correlation matrix

<table>
<thead>
<tr>
<th>Variable</th>
<th>Long term Debt</th>
<th>Research investments</th>
<th>Bank debt/sales</th>
<th>Acquisitions in 3 years</th>
<th>D/E (t-1)</th>
<th>Family firms</th>
<th>Listing status</th>
<th>In age</th>
<th>In size</th>
<th>Liquidity Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long term debt</td>
<td>1.000</td>
<td>0.0630*</td>
<td>0.4283*</td>
<td>0.1074*</td>
<td>0.0599*</td>
<td>0.0892*</td>
<td>0.1409*</td>
<td>0.0296*</td>
<td>0.0606*</td>
<td>0.0284*</td>
</tr>
<tr>
<td>Research investments</td>
<td>0.0630*</td>
<td>1.000</td>
<td>0.0700*</td>
<td>0.0430*</td>
<td>0.0091*</td>
<td>0.0426*</td>
<td>0.0696*</td>
<td>0.0326*</td>
<td>0.0106*</td>
<td>0.0096*</td>
</tr>
<tr>
<td>Bank debt / sales</td>
<td>0.4283*</td>
<td>0.0700*</td>
<td>1.000</td>
<td>0.0656*</td>
<td>0.0104*</td>
<td>0.0350*</td>
<td>0.0186*</td>
<td>0.0430*</td>
<td>0.0082*</td>
<td>0.0273*</td>
</tr>
<tr>
<td>Acquisitions in 3 years</td>
<td>0.1074*</td>
<td>0.0430*</td>
<td>0.0656*</td>
<td>1.000</td>
<td>0.0104*</td>
<td>0.0350*</td>
<td>0.0186*</td>
<td>0.0430*</td>
<td>0.0082*</td>
<td>0.0273*</td>
</tr>
<tr>
<td>D/E (t-1)</td>
<td>0.0599*</td>
<td>0.0091*</td>
<td>0.0104*</td>
<td>0.0104*</td>
<td>1.000</td>
<td>0.0450*</td>
<td>0.0104*</td>
<td>0.0430*</td>
<td>0.0082*</td>
<td>0.0273*</td>
</tr>
<tr>
<td>Family firms</td>
<td>0.0892*</td>
<td>0.0426*</td>
<td>0.0350*</td>
<td>0.0350*</td>
<td>0.0450*</td>
<td>1.000</td>
<td>0.0450*</td>
<td>0.0430*</td>
<td>0.0082*</td>
<td>0.0273*</td>
</tr>
<tr>
<td>Listing status</td>
<td>0.1409*</td>
<td>0.0696*</td>
<td>0.0186*</td>
<td>0.0186*</td>
<td>0.0450*</td>
<td>1.000</td>
<td>0.0450*</td>
<td>0.0430*</td>
<td>0.0082*</td>
<td>0.0273*</td>
</tr>
<tr>
<td>In age</td>
<td>-0.0296*</td>
<td>-0.0326*</td>
<td>-0.0104*</td>
<td>-0.0104*</td>
<td>-0.0450*</td>
<td>0.0450*</td>
<td>1.000</td>
<td>0.0430*</td>
<td>0.0082*</td>
<td>0.0273*</td>
</tr>
<tr>
<td>In size</td>
<td>0.0823*</td>
<td>0.0104*</td>
<td>-0.0115*</td>
<td>-0.0115*</td>
<td>-0.0450*</td>
<td>0.0450*</td>
<td>1.000</td>
<td>0.0430*</td>
<td>0.0082*</td>
<td>0.0273*</td>
</tr>
<tr>
<td>Liquidity ratio</td>
<td>0.0606*</td>
<td>-0.0062*</td>
<td>-0.2354*</td>
<td>-0.2015*</td>
<td>-0.1557*</td>
<td>-0.0719*</td>
<td>-0.0559*</td>
<td>0.0390*</td>
<td>0.0106*</td>
<td>0.0083*</td>
</tr>
</tbody>
</table>

Note: * p < 0.05

4. DISCUSSION OF RESULTS

The first hypothesis focused on the financial structure as the effect of acquisitions. Table 5 is about whether acquisitions increase the financial exposition towards bank institutions. To test this hypothesis, I estimated a fixed-effects regression model in which the bank debt/sales ratio was used as dependent variable, and the key explanatory variable is the number of acquisitions carried out in the time span of three years. The inclusion of firm fixed-effects allows controlling for unobserved heterogeneity related to a specific firm (i.e. cultural factors, national policies). Finally, year fixed effects were included to control for trends common to all firms. Standard errors are clustered by the firm to adjust for both heteroskedasticity and serial autocorrelation at the company level.

Table 5. Panel regressions of number of acquisition on bank debt

<table>
<thead>
<tr>
<th>Bank Debt/Sales</th>
<th>All sample</th>
<th>Family Firms</th>
<th>Nonfamily Firms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of acquisitions</td>
<td>0.890*** (0.336)</td>
<td>0.529 (0.475)</td>
<td>1.419*** (0.504)</td>
</tr>
<tr>
<td>Listing Status</td>
<td>-3.713</td>
<td>-4.384</td>
<td>omitted</td>
</tr>
<tr>
<td>Ln Age</td>
<td>-0.141</td>
<td>0.729</td>
<td>0.544</td>
</tr>
<tr>
<td>Ln Size</td>
<td>-1.777*** (0.200)</td>
<td>-3.346*** (0.365)</td>
<td>-0.644*** (0.237)</td>
</tr>
<tr>
<td>Liquidity Ratio</td>
<td>-2.844*** (0.173)</td>
<td>-3.676*** (0.292)</td>
<td>-2.123*** (0.214)</td>
</tr>
<tr>
<td>Constant</td>
<td>39.43*** (2.228)</td>
<td>59.66*** (4.116)</td>
<td>19.87*** (2.656)</td>
</tr>
<tr>
<td>Observations</td>
<td>51,977</td>
<td>29,324</td>
<td>19,434</td>
</tr>
<tr>
<td>N firms</td>
<td>6,727</td>
<td>3,997</td>
<td>2,567</td>
</tr>
<tr>
<td>Year dummies</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Firm clustered S.E.</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Test F</td>
<td>40.34***</td>
<td>31.55***</td>
<td>15.02***</td>
</tr>
<tr>
<td>R²</td>
<td>0.0317</td>
<td>0.0261</td>
<td>0.0375</td>
</tr>
</tbody>
</table>

Note: * *, ** indicate significance at beyond the 0.1, 0.05 and 0.01 levels, respectively
Table 6 is about whether acquisitions increase the equity capital in order to finance acquisitions. To test this hypothesis, I estimated a fixed-effects regression model in which the equity increase in the year of the acquisition was used as dependent variable, and the key explanatory variable is a dummy variable equal to 1 if at least one acquisition occurred (and 0 otherwise). Also, in this case, the model includes year fixed effects and standard errors clustered by firm.

The first regression confirms that in order to finance a path of external growth is also necessary to use own resources: the beta coefficient of equity increase ratio is positive and statistically significant (+0.033, p value < 0.01). This means that, on average, the equity capital has increased by 3.3% in case of acquisitions. Although the increase in equity capital is a common feature to all companies that are pursuing external growth strategies, the result in column 2 shows that this effect is greater (+0.034) and highly significant (p value > 0.01) for family firms. Indeed, in column 3 the beta coefficient for nonfamily firms is lower (+0.029) even if still statistically significant (p value < 0.05). Although the difference between the two coefficients is quite low, this result confirms that private family firms will increase equity capital to a greater extent than nonfamily firms in their acquisition strategy.

Table 6. Panel regressions of acquisition on equity increase

<table>
<thead>
<tr>
<th>Equity increase</th>
<th>All sample</th>
<th>Family Firms</th>
<th>Nonfamily Firms</th>
</tr>
</thead>
<tbody>
<tr>
<td>At least one acquisition</td>
<td>0.033***</td>
<td>0.034***</td>
<td>0.029**</td>
</tr>
<tr>
<td>Listing Status</td>
<td>-0.027</td>
<td>-0.026</td>
<td>-0.026</td>
</tr>
<tr>
<td>Ln Age</td>
<td>-0.0055</td>
<td>-0.0045</td>
<td>-0.013</td>
</tr>
<tr>
<td>Ln Size</td>
<td>0.037***</td>
<td>0.032***</td>
<td>0.027***</td>
</tr>
<tr>
<td>Liquidity Ratio</td>
<td>0.020***</td>
<td>0.019***</td>
<td>0.021***</td>
</tr>
<tr>
<td>Constant</td>
<td>-0.144***</td>
<td>-0.150***</td>
<td>-0.240***</td>
</tr>
<tr>
<td>Observations</td>
<td>39,887</td>
<td>22,914</td>
<td>14,395</td>
</tr>
<tr>
<td>N firms</td>
<td>6,732</td>
<td>3,878</td>
<td>2,455</td>
</tr>
<tr>
<td>Year dummies</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Firm clustered S.E.</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Test F</td>
<td>55.99***</td>
<td>46.31***</td>
<td>15.53***</td>
</tr>
</tbody>
</table>

Note: *, **, *** indicate significance at beyond the 0.1, 0.05 and 0.01 levels, respectively

In order to investigate in deep this result, it is also important to take into account the financial structure before the acquisition. Indeed, family firms that decided to follow an acquisition strategy may have a less leveraged financial structure than nonfamily firms. Thus, an additional regression is needed to assess whether the financial stability of the company has an impact on the probability to carry out acquisitions. In order to investigate whether acquiring family firms show a lower debt before the acquisition, I used the debt equity ratio in the previous year of the acquisition as independent variable, and a dummy variable called “at least one acquisition” as dependent variable in order to measure the likelihood to carry out at least an acquisition. It is equal to 1 in the case of at least one acquisition, 0 otherwise.

The results of a probit regression are shown in Table 7. In the full sample the coefficient of debt level at t-1 is negative and statistically significant (-0.037, p value < 0.01). In other words, the probability to acquire decreases by about 3.7% with the increase of one unit in debt/equity ratio, ceteris paribus. Then, in the following two models the results are divided between family and nonfamily firms, and I found that the coefficient is statistically significant only for family firms (+0.082, p value < 0.01). Thus, the negative relationship seems to be true only for family firms.

As a robustness check, I ran a fixed-effect regression using as dependent variable “the number of acquisitions” carried out each year and the debt/equity ratio of the previous year as the independent variable. I obtained the same results, which are not tabulated and are available upon request to the author.

Table 7. Probit regressions of D/E (t-1) on acquisitions

<table>
<thead>
<tr>
<th>At least one acquisition per year</th>
<th>All sample</th>
<th>Family Firms</th>
<th>Nonfamily Firms</th>
</tr>
</thead>
<tbody>
<tr>
<td>D/E t-1</td>
<td>-0.037***</td>
<td>-0.082***</td>
<td>-0.028</td>
</tr>
<tr>
<td>Listing Status</td>
<td>-0.021</td>
<td>+0.023</td>
<td>+0.012</td>
</tr>
<tr>
<td>Ln Age</td>
<td>+1.064***</td>
<td>+1.411***</td>
<td>+1.956***</td>
</tr>
<tr>
<td>Ln Size</td>
<td>+0.034</td>
<td>+0.004</td>
<td>+0.033</td>
</tr>
<tr>
<td>Liquidity ratio</td>
<td>+0.027</td>
<td>+0.024</td>
<td>+0.171***</td>
</tr>
<tr>
<td>Constant</td>
<td>+0.035</td>
<td>+0.071</td>
<td>+0.031</td>
</tr>
<tr>
<td>Observations</td>
<td>+0.077</td>
<td>+0.008</td>
<td>+0.053</td>
</tr>
<tr>
<td>N firms</td>
<td>+0.035</td>
<td>+0.071</td>
<td>+0.031</td>
</tr>
<tr>
<td>Likelihood-ratio</td>
<td>+0.047</td>
<td>+0.013</td>
<td>+0.053</td>
</tr>
<tr>
<td>Prob &gt; chi2</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Note: *, **, *** indicate significance at beyond the 0.1, 0.05 and 0.01 levels, respectively
The second hypothesis focuses on research investments. It aims to investigate whether there is any difference between family and nonfamily firms in their proclivity to invest in innovation, even when they proceed with an acquisition. Table 8 is about the impact of acquisitions carried out in the last three years on firm research investments. Also, in this case, the model includes year fixed-effects and standard errors clustered by firm. In the first regression on the whole sample, the coefficient is not significant, while splitting the regression analysis between family and nonfamily firms, the coefficient is statistically not significant for family firms (second column) and negative (-0.0019) and statistically significant (p value < 0.1) for nonfamily firms. Thus, for nonfamily firms, a path of acquisitions is associated with cuts in research investments. This result fully confirms the second hypothesis, according to which family firms show a long-term horizon compared to nonfamily firms avoiding cutting investment in research.

In short, results allow stating that whereas family firms pursue external growth strategies, they are more able to avoid cuts in long-term investments, such as that in research investments. Unlike what asserted by Hall (1999) and Hitt et al. (1991a), the relationship between the number of acquisitions and long-term investments is not necessarily negative. Data show that family firms have long-term goals, and the growth strategy through acquisitions do not compromise the liquidity or the ability to invest in the long-term.

Table 8. Panel regressions of number of acquisition on research investments

<table>
<thead>
<tr>
<th>Research Investments</th>
<th>All sample</th>
<th>Family Firms</th>
<th>Nonfamily Firms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of acquisitions</td>
<td>0.0004</td>
<td>0.0006</td>
<td>-0.0019**</td>
</tr>
<tr>
<td>Listing Status</td>
<td>0.0006</td>
<td>0.0010</td>
<td>0.0006</td>
</tr>
<tr>
<td>Ln Age</td>
<td>-0.0025**</td>
<td>-0.0027**</td>
<td>-0.0002</td>
</tr>
<tr>
<td>Ln Size</td>
<td>0.0001</td>
<td>0.0001**</td>
<td>-0.0001</td>
</tr>
<tr>
<td>Liquidity Ratio</td>
<td>-0.0025***</td>
<td>-0.0019**</td>
<td>-0.0011**</td>
</tr>
<tr>
<td>Constant</td>
<td>0.0342***</td>
<td>0.0423***</td>
<td>0.0108**</td>
</tr>
<tr>
<td>Observations</td>
<td>32,255</td>
<td>29,490</td>
<td>19,582</td>
</tr>
<tr>
<td>N firms</td>
<td>7,022</td>
<td>4,023</td>
<td>2,598</td>
</tr>
<tr>
<td>Year dummies</td>
<td>y</td>
<td>y</td>
<td>y</td>
</tr>
<tr>
<td>Firm clustered S.E.</td>
<td>y</td>
<td>y</td>
<td>y</td>
</tr>
<tr>
<td>Test F</td>
<td>22.47***</td>
<td>21.96***</td>
<td>8.37***</td>
</tr>
<tr>
<td>R</td>
<td>0.0804</td>
<td>0.0119</td>
<td>0.0068</td>
</tr>
</tbody>
</table>

Note: *, **, *** indicate significance at beyond the 0.1, 0.05 and 0.01 levels, respectively

The last hypothesis focuses on the impact of acquisitions on long-term debt. It aims to investigate whether there is any difference between family and nonfamily firms on the financial structure, once chosen to proceed with an acquisition. Table 9 shows the impact of acquisitions carried out in the last three years on the long-term debt of the company. Also, in this case, the model includes year fixed-effects and standard errors clustered by firm. In the first regression on the whole sample, the coefficient of the independent variable is negative but not statistically significant. Then, splitting the regression analysis between family and nonfamily firms, the coefficient turns statistically significant for family firms (0.009; p value < 0.1), confirming that they rely more on long-term debt when they pursue an external growth strategy. On the contrary, the third column shows that the relationship between acquisitions and long-term debt is not statistically significant for nonfamily firms.

The results confirm the third hypothesis, according to which family firms are those with a longer term perspective in planning their financial structure compared to nonfamily firms. Thus, family firms are more averse to balance short-term vs long-term debt. To do this, they will put in place mechanisms to preserve the financial structure, by resorting to mechanisms of self-financing or balancing better the short vs long term debt.

Table 9. Panel regressions of number of acquisition on long term debt

<table>
<thead>
<tr>
<th>Long-Term Debt</th>
<th>All sample</th>
<th>Family Firms</th>
<th>Nonfamily Firms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of acquisitions</td>
<td>0.009***</td>
<td>0.0004</td>
<td>0.0006</td>
</tr>
<tr>
<td>Listing Status</td>
<td>-0.0062</td>
<td>-0.0002</td>
<td>omitted</td>
</tr>
<tr>
<td>Ln Age</td>
<td>-0.0003</td>
<td>-0.0002</td>
<td>0.002</td>
</tr>
<tr>
<td>Ln Size</td>
<td>0.0000</td>
<td>0.0000**</td>
<td>0.0000</td>
</tr>
<tr>
<td>Liquidity Ratio</td>
<td>0.0061***</td>
<td>0.0030***</td>
<td>0.0060***</td>
</tr>
<tr>
<td>Constant</td>
<td>0.0318***</td>
<td>0.874***</td>
<td>1.002***</td>
</tr>
<tr>
<td>Observations</td>
<td>53,697</td>
<td>30,268</td>
<td>19,139</td>
</tr>
<tr>
<td>N firms</td>
<td>7,040</td>
<td>4,041</td>
<td>2,606</td>
</tr>
<tr>
<td>Firm clustered S.E.</td>
<td>y</td>
<td>y</td>
<td>y</td>
</tr>
<tr>
<td>Year dummies</td>
<td>y</td>
<td>y</td>
<td>y</td>
</tr>
<tr>
<td>Test F</td>
<td>30.31***</td>
<td>19.75***</td>
<td>12.27***</td>
</tr>
<tr>
<td>R</td>
<td>0.071</td>
<td>0.055</td>
<td>0.078</td>
</tr>
</tbody>
</table>

Note: *, **, *** indicate significance at beyond the 0.1, 0.05 and 0.01 levels, respectively
5. CONCLUSIONS

The external growth is a strategic choice still neglected by many Italian companies, and the reasons may lie either in the lack of ability by the top management team to manage such complex operations or in financial difficulties, which do not allow the use of a significant amount of resources for these investments. Based on these assumptions, the aim of this work is to shed light on the reasons for this reluctance and to detect whether there is any difference between family and nonfamily firms.

Empirical findings show that the relationship between the debt equity ratio and the chance to perform an external growth strategy is negative in family firms. The higher the debt equity ratio, the lower the probability of carrying out an acquisition. Thus, external growth strategies are more likely to happen in family firms with a greater asset security.

Looking at the impact of acquisitions on financial leverage, I found that acquisitions exert a negative effect on the total amount of bank debt, but family firms will use bank debt to a lower extent than nonfamily firms to finance acquisitions. In other words, the incidence of bank debt (on sales) increases only for nonfamily firms in case of acquisitions. At the opposite side, results show that family firms will increase more equity capital to finance acquisitions. Considering that in the Italian market there is an extensive use of the banking system to address the need for funding, results observed for family firms are even more relevant. The absence of a significant increase of bank debt as well as the greater willingness to use more equity funds to carry on acquisitions may be due to their capacity of self-financing, which in many cases can also include the private resources of the family. The result is in line with those of Crespi and Martin-Oliver (2015), who state that the target leverage ratio of family firms is smaller than that of nonfamily firms.

The results are also consistent with the literature on agency theory. Morck and Yeung (2003) suggest that agency problems are minimized in narrowly held firms, avoiding that external managers may fail in their fiduciary duties. Moreover, I found support for arguments predicted by blockholders’ scholars (Du and Dai, 2005; Shleifer and Vishny, 1997), namely that controlling shareholders with large stakes are more likely to have lower financial leverage due to fewer dilution concerns. Family firms investigated in our study are in 90% of cases fully-controlled by family members, and they may be less exposed to dilution concerns than different ownership structures with blockholding shareholders, such as coalitions and firms controlled by private equity funds, which account for roughly 50% of acquisitions carried out by nonfamily firms.

Finally, using the lens of agency theory, many authors agree in asserting that family decision makers are more risk-averse than nonfamily counterparts (Gómez-Mejia et al., 2010; Gómez-Mejia et al., 2011). Control risk increases with leverage because of the higher probability of bankruptcy, and family firms are debt averse due to the risk of losing control (Mishra and McConaughy, 1999). For instance, Gómez-Mejia and colleagues (2010) found that family firms have a lower level of internalization compared to nonfamily peers, and they explain these findings with the SEW preservation logic. Using SEW as a reference point, family firms would prefer to give top priority to retain the control in the hands of the family (Gómez-Mejia et al., 2007).

In the second hypothesis, the attention was addressed on the relationship between acquisitions and research investments. Moving from the main assumption that the choice of the financial structure has an impact on investment policies, there may be a trade-off between investments in acquisitions and innovation. Hitt and colleagues (1991b) defined acquisitions as “poison pills” as the pressure to use the cash flow to repay debt may force managers to cut investments, especially those with an impact on the long-term such as R&D.

I found that in the context of family business the relationship between acquisitions and long-term investments is not necessarily negative, and family firms are more able to invest in acquisition strategies without compromising the investments in innovation (Anderson et al., 2012; Block, 2012). The results sink the roots into some peculiar features of family principals. According to Corbetta (2010), family firms have a longer time horizon in their financial and strategic choices because the company is seen as an asset to pass on to offspring (Miller and Le Breton-Miller, 2005; Neckebrouck et al., 2017; Zellweger and Nason, 2008). Consistent with the family business literature, during periods of credit crunch the access to funding for growth contracted less sharply in family firms (D’Aurizio et al., 2015).

The short-term debt may limit the change to choose projects with high returns (Wahba, 2013). Thus, to avoid cuts in long-term expenses such as research investments, a more balanced debt maturity structure is required. Indeed, I found a positive relationship between long-term debt and family controlled firms, revealing that family principals are more oriented to rely on long-term debt in comparison to nonfamily peers in external growth strategies. In other words, even in operations such demanding from the financial point of view, family firms do not affect their ability to manage the company with a long term vision. Their ability to manage the debt maturity policy indicates a clear focus on the long-term, which is one of the aspects that characterize most family firms (Arregle et al., 2007; Le Breton-Miller and Miller, 2006; Miller and Le Breton-Miller, 2005). This result is also consistent with the study of Agrawal and Nagarajan (1990), according to which firms with long-term debt are more likely to be family firms. Also, Diaz-Diaz et al. (2016) found that controlled family firms present higher debt maturity, as committed shareholders possess strong incentives to engage in investment activities that ensure the long-term viability (Anderson et al., 2012) and health of the firm (Schmid, 2013).

Family-controlled firms are able to guarantee a complete alignment of interests between shareholders and management, and the capacity to minimize agency problems is preserved. According to Morck and Yeung (2003), the monitoring activity is greater when managers own larger equity shares because they are less likely to opt for actions that reduce their share's value. Extending this predictions, their closer alignment of interests may induce family managers to plan better the financial structure to ensure the stability of the business.

This result is also consistent with findings of Ang et al. (2000). By pinpointing from firms with zero agency-cost (i.e., where the manager is the unique shareholder), they found that agency costs
are significantly lower when a family manager run the company, as well as agency costs, are inversely related to the managers' ownership share. Thus, when family firms have to decide how to finance and allocate investments for the growth, it is more likely that they stay focused on the stability of the company as it is closely connected to that of the family (Corbetta, 2010).

The findings support the long-term perspective of family firms, and the preservation of financial stability seems to prevail also when they make a potentially detrimental choice for their financial security. Although other studies have demonstrated that the risk of losing control may induce family firms to lower level of debt (Mishra and McConaughy, 1999), I extended this stream of researches to debt maturity structure. According to Shyu and Lee (2009: 612), "debt maturity has been shown to be an integral part of the overall leverage policy of a firm", and I found that the long-term debt increases more in family firms.

Furthermore, these results show that family firms are more able to invest in acquisition strategies without compromising the investments in innovation. These characteristics result from the peculiar nature of family principals, which dominate the Italian competitive landscape. Several managerial considerations can be drawn from these empirical results.

First, the critical importance of financial stability for family firms that want to pursue the way of external growth. A financial structure heavily unbalanced towards debt does not seem to bring to these results show that family principals may be more interested in the supply of resources. This problem could be – at least partially - solved through a more openness to capital markets, still underdeveloped in Italy. Although the route for listing procedures is often an obstacle, the financial structure but how it impacts the consequence of the level of indebtedness instead unidirectional. The external growth strategy may be used to capture the weight of this strategy.

Second, the causal relationship could be not unidirectional. The external growth strategy may be the consequence of the level of indebtedness instead of being the predictor. The focus would be no longer the financial structure but how it impacts on the acquisition strategy. Furthermore, a different dependent variable from the number of acquisitions – such as the price paid for the target companies – may be used to capture the weight of this strategy.

Regarding the study of family firms, many important elements that could change the orientation of companies are omitted. For example, critical aspects such the company's culture, the quality of family relationships or the presence of conflicts among family members are absent.

Finally, future researches may also investigate the role of the credit market in Italy and their influence on growth and, more generally, on investment choices. It may contribute to a better understanding of the topic and recognizing whether these factors may have an impact in facilitating external growth strategies.

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