ARE SMALL FAMILY FIRMS FINANCIALLY SOPHISTICATED?

Authors:

Stefano Caselli (corresponding author)
Institute of Financial Markets and Financial Intermediation,
Bocconi University,
Via Sarfatti 25, 20136 Milan,
Italy
E-mail: stefano.caselli@unibocconi.it

Alberta Di Giuli
Littauer Center
Harvard University
1875 Cambridge Street
Cambridge, MA 12138
USA
E-mail: digiuli@fas.harvard.edu

Stefano Gatti
Institute of Financial Markets and Financial Intermediation,
Bocconi University,
Viale Sarfatti 25, 20136 Milan,
Italy
E-mail: stefano.gatti@unibocconi.it

Article key words: small businesses, family firms, bank-firm relation

Topics of the small business research areas: Family and Founders Owned Enterprises, Small Business Finance and Accounting

JEL Codes: G20, G24, G32

Authors Biographical Statements

Stefano Caselli
Associate Professor, Institute of Financial Markets and Financial Intermediation
Bocconi University
Senior Lecturer, SDA Bocconi School of Management
Research interest: family firms, venture capital, credit risk management

Alberta Di Giuli
Ph.D. Student,
Bocconi University
Visiting Fellow, Department of Economics
Harvard University
Research interest: family firms, behavioral corporate finance

Stefano Gatti
Associate Professor, Institute of Financial Markets and Financial Intermediation
Bocconi University
Senior Lecturer, SDA Bocconi School of Management
Research interest: family firms, venture capital, project finance

ARE SMALL FAMILY FIRMS FINANCIALLY SOPHISTICATED?

Abstract

We study the financial sophistication of small family firms. Sophistication refers to the use of complex financial products, such as options, swaps, debt restructuring, and merger and acquisition advisory. Our analysis is based on a unique dataset with detailed information on 544 Northern Italian firms. We find that the main drivers of financial sophistication are the generation of the family owners, the presence of an external (that is non-family) chief financial officer, and the existence of an external shareholder. We analyze how the impact of these factors on the level of sophistication varies across the following product classes: corporate finance, cash management, corporate lending, and risk management. We conclude that careful targeting by financial institutions on the basis on the firms' characteristics identified in this study would have an important impact on the development of small family firms.

ARE SMALL FAMILY FIRMS FINANCIALLY SOPHISTICATED?*

Stefano Caselli[†], *Alberta Di Giuli*[‡], *Stefano Gatti*[¶]

We study the financial sophistication of small family firms. Sophistication refers to the use of complex financial products, such as options, swaps, debt restructuring, and merger and acquisition advisory. Our analysis is based on a unique dataset with detailed information on 544 Northern Italian firms. We find that the main drivers of financial sophistication are the generation of the family owners, the presence of an external (that is non-family) chief financial officer, and the existence of an external shareholder. We analyze how the impact of these factors on the level of sophistication varies across the following product classes: corporate finance, cash management, corporate lending, and risk management. We conclude that careful targeting by financial institutions on the basis on the firms' characteristics identified in this study would have an important impact on the development of small family firms.

---

†Stefano Caselli, Associate Professor, Institute of Financial Markets and Financial Intermediation, Bocconi University, Senior Lecturer, SDA Bocconi School of Management, e-mail: stefano.caselli@unibocconi.it (corresponding author)
‡Alberta Di Giuli, Ph.D. Student, Bocconi University, Visiting Fellow, Department of Economics, Harvard University, e-mail: digiuli@fas.harvard.edu
¶Stefano Gatti, Associate Professor, Institute of Financial Markets and Financial Intermediation, Bocconi University, Senior Lecturer, SDA Bocconi School of Management, e-mail: stefano.gatti@unibocconi.it

*The authors would like to thank Josh Lerner, John Doukas and seminar participants at the Conference of International Council for Small Business, Johannesburg 2004, for helpful comments and suggestions on an earlier draft of the papers.

1. Introduction

A large fraction of businesses in developed economies is controlled by families. Family firms constitute 90% of the 15 million businesses in the United States (Paisner 1999) and one-third of S&P 500 firms (Anderson and Reeb 2003; Perez-Gonzalez 2001). According to a survey run by the Bank of Italy, family businesses constitute 45.9% of all Italian companies, with 44.5% and 51.3% of the firms employing less than 200 and 50 workers, respectively (Trento and Giacomelli 2004). These firms play a key role in the economy.[1]

Despite the preponderance of family businesses, however, little attention has been devoted to the financial products used by these firms, especially the smallest ones.[2] Small family firms have peculiar financial needs, pertaining in some instances to their small size and in others to the nature of family ownership. It is natural to wonder whether these firms are able and willing to use the complex financial products offered by the financial industry.

In this paper, we analyze the adoption of financial products by small family firms. We focus on the firms' sophistication as proxied by the use of complex financial products, such as options, swaps, debt restructuring, and merger and acquisition (M&A) advisory. We consider a product to be complex when it is used less frequently than other products, or when its management requires particular skills and expertise.

Our aim is to study the main drivers of the sophistication of the financial management strategy of small family firms. For this purpose, we use a number of explanatory variables that the

[1] Defining a family firm as one in which the family has at least 50% ownership, Bennedsen, Nielsen, and Wolfenzon (2004) find that 89% of companies in Denmark are family businesses. Mork and Yeung (2000) set average billionaire wealth as a percentage of the GDP of several countries as a proxy for the national incidence of family businesses. The level varies widely across the world, reaching 13.3% for East Asian economies, 4.5% for Latin American economies, 4.4% for United States and Canada, 1.1% for United Kingdom, and 2.4% for OECD countries as a whole.

literature has shown to affect the behavior of small family firms. Specifically, we seek to understand how the sophistication of a small family firm's financial policy is related to its size, the generation of its family owner, the presence of external (that is non-family) management and chief financial officer (CFO), and the existence of external shareholders.

Our analysis is based on a unique dataset with information on the characteristics and financial policies of a sample of 544 small firms that operate in the area of Milan, in Northern Italy. We collected the data in collaboration with the Chamber of Commerce of Milan by designing a tailored made questionnaire. The questionnaire is designed to give a comprehensive view of the ownership, management, and financial policies of small family firms. The data set contains detailed information about demographics of the family firms, ownership structure, governance, financial management and key financial decision makers, financial products purchased, and reasons for satisfaction or dissatisfaction in the relations with banks.

Based on previous studies in the area, we formulate four hypotheses on the main drivers of financial sophistication of family firms. The hypotheses are that: H1) third-generation and older small family firms are more financially sophisticated than first and second-generation ones; H2) small family firms with an external manager or CFO are more financially sophisticated; H3) small family firms with external shareholders are more financially sophisticated; and H4) larger small family firms are more financially sophisticated than smaller ones.

In particular, we break down the impact of the above-mentioned firms' characteristics (that is generation, external manager and CFO, external shareholders, and size) on the level of sophistication across the following product classes: corporate finance, cash management, corporate lending, and risk management. We conclude that:

- H1 is accepted for corporate finance and cash management, and rejected for corporate lending and risk management products;

[2] Family businesses range from mom-and-pop stores to large multinationals. For the purpose of our analysis, we focus on small family firms, as defined later in the text.

- H2 is only partially accepted for cash management, and rejected for all the other products;
- H3 is accepted for corporate lending and risk management, and rejected for corporate finance and cash management products;
- H4 is weakly accepted for corporate finance and cash management, and rejected for corporate lending and risk management products.

We conclude that the main drivers of financial sophistication are the generation of the family owners, the presence of a non-family CFO, and the existence of an external shareholder. In our sample, the presence of an external manager and size do not have a statistically significant effect on financial sophistication.

These results have implications for the supply of products by financial institutions. The main contribution of the study is the finding that the adoption of complex products depends on the characteristic of the small family firms in terms of generation that run the company and presence of external shareholders and CFO. Thus, since firm characteristics affect differently the adoption of each class of product, financial institutions can better target the small family firms by offering more customized products. As a result, small family firm could find a better answer to their peculiar needs.

The financial sophistication of small family firms has not received much attention in the financial and management literature, even though the issue is a key one, with practical implications for the development of these firms. Our study is also innovative in its focus on the intersection of small businesses and family firms, which past studies have studied separately.

The paper proceeds as follows. Section 2 defines family firms and small businesses. Section 3 reviews the relevant literature and introduces our hypotheses. Section 4 introduces the data and methodology. Section 5 presents the results. Section 6 concludes.

2. Family Firms and Small Businesses

In order to define small family firms, we now review the definition of family firms proposed in the literature and the definition of small businesses used by policy makers.

Defining *family firm* is essential to our study, since different scholars have used this same label to analyze diverse entities. According to Handler (1989), academics use four definitions, based on: 1) the ownership-management principle, that is major ownership of the firm or control on management (see Barry 1989; Barnes and Hershon 1976; Dyer 1986; Lansberg, Perrow, and Rogolsky 1988; Stern 1986); 2) the interdependent subsystem principle, that is involvement of the family in the business (see Beckhard, and Dyer 1983; Davis 1983); 3) the generational transfer principle, that is the transfer of business across generations (see Churchill and Hatten 1987; Ward 1987); and 4) multiple conditions of the above mentioned principles (see Donnelley 1964; Rosenblatt, de Milk, Anderson, and Johnson 1985). More recently, La Porta, Lopez de Silanes, and Shleifer (1999), Claessens, Djankov, and Lang (2000), and Faccio and Lang (2002) use 10% and 20% ownership thresholds to study large publicly held corporations in which a relatively small share still guarantees control. The appropriate threshold for family control clearly depends on the overall dispersion of corporate ownership within a country. For example, Bennedsen, Nielsen, and Wolfenzon (2004) adopt a 50% ownership threshold in the case of Denmark.

It is also difficult to identify criteria to universally define the size of *small businesses*. Within the European Union (EU), the ceiling for inclusion in the small and medium-sized enterprise (SME) category is 250 employees, turnover of less than or equal to 50 million euros, and total assets of less than or equal to 43 million euros (CEC 2003). The New Basel Capital Accord (Basel Committee 2004) also sets the threshold at a turnover of 50 million euros.

For the purpose of our study, we define a *small family firm* by applying the EU definition for size and adding the following severe filters regarding family control: 1) the family has a majority stake (more than 50% ownership); 2) the family is involved in the business and members

have effective decision power (either because the CEO is a family member or the family controls the majority of the board); and 3) the CEO recognizes that the business is a family one.

3. Literature Review and Hypotheses

Past studies of family businesses have examined management practice and strategy, succession, distinctiveness and conflict, the role of women and siblings, helping family businesses, credit restrictions, economic and political factors, methodology, and other topics (for a broad and in-depth study of the family businesses literature, see Bird, Welsch, Astrachan, and Pistrui 2002). Recently, academics have turned their attention to comparing the performance of family and non-family firms, or family firms with different characteristics (see McConaughy and Phillips 1999; McCann, Leon-Guerrero, and Healey 2001; Morck, Stangeland, and Yeung 2000; Perez-Gonzalez 2001; Anderson and Reeb 2003; Adams, Almeida, and Ferreira 2003; Villalonga and Amit 2004; Sraer and Thesmar 2004; and Burkart, Panunzi, and Shleifer 2003).

So far, the financial policies of small family firms, in terms of financial products used, especially the most complex ones, have not been examined thoroughly. When the financial side of family firms has been studied, it is mainly from the standpoint of the financial sophistication of the techniques used, such as capital budgeting, discounted cash flow analysis, and risk management (see Filbeck and Lee 2000; Aronoff 1998). Little attention has been paid to the financial products used. In this study, we focus on the adoption of complex products, such as M&A advisory, cash management, and derivatives for risk management.

The first characteristic of the small family firms analyzed in our study is the generation of the owner. Filbeck and Lee (2000) analyze the extent of the implementation of capital budgeting, risk adjustment, and working capital techniques, which they consider as proxies for the sophistication of a firm's financial management. They find that third and older generation small family firms tend to implement more modern techniques than first and second-generation ones.

However the evidence that third-generation and older companies adopt more sophisticated financial analysis techniques is mixed.

Based on these findings, we analyze the sophistication of firms' financial policies through the use of complex financial products, focusing on the firm's current family generation. We argue that third and older generations develop more sophisticated financial policies than their predecessors in order to respond to the increasing complexity and diversity of the firm's financial needs. Based on this theoretical and empirical groundwork, we make the following hypothesis:

H1: Third-generation and older small family firms are more financially sophisticated than first and second-generation ones.

The second aspect analyzed is the existence of a non-family manager or/and CFO. In the literature, there are few and mixed results about the effects of the presence of an external manager or CFO on financial techniques and innovation, and no findings about the use of financial products. Filbeck and Lee (2000) argue that firms with external CFO tend to use more sophisticated capital-budgeting techniques, but at the same time also less modern risk-adjustment techniques.

There is no direct evidence on the impact of external managers on the incentives to adopt innovative financial policies. As pointed out by the scant literature on research and development (R&D) investment, family firms tend to innovate less than non-family ones. In particular, Morck, Stangeland, and Yeung (2000) find that heir-controlled Canadian firms do less R&D investment than non-family firms of the same size. Established wealthy families might avoid innovation to preserve the value of existing capital assets. Morck and Yeung (2003) argue that family firm managers can act partly in favor of the family over other shareholders. Overall, the presence of a professional manager in a small family firm affects the broad inclination to innovate. We expect that the introduction of a professional manager into the firm lead to an increased use of complex financial products.

H2: Small family firms with an external manager or CFO are more financially sophisticated.

The third firm characteristic we study is the existence of non-family shareholder in the ownership structure of the company. Filbeck and Lee (2000) find that family firms characterized by "outside influence", that is the presence of external members in the board of directors, are more likely to employ sophisticated financial management techniques compared to other family businesses. By extension, we argue that the presence of external shareholders should increase the use of complex financial products.

H3: Small family firms with external shareholders are more financially sophisticated.

Finally, we turn to the effect of firm size on financial sophistication of small family firms. Gallo and Vilaseca (1996) analyze Spanish firms and find a significant relation between the size of the firm and its financial practices, mostly regarding the variety of financial products used. Variety of financial products is measured by number of products used, without specifying type or complexity.

Using the 1993 National Survey of Small Business Finances, Coleman and Carsky (1999) and Cole and Wolken (1995) analyze the financial products used by small businesses (not always family firms). Both studies focus on credit lending in its various forms: lines of credit, financial leases, commercial mortgages, and motor vehicle or equipment loans. Coleman and Carsky (1999) find that a firm's size, age, and profitability are significant predictors of the use of these financial products.

Cole and Wolken (1995) also analyze the use of checking and saving accounts as well as financial management products. Their main finding relevant to our analysis is that the likelihood of using a financial service increases with a firm's size. Similarly, Niskanen and Niskanen (2005)

discover that the use of sophisticated products for working capital and cash payments is strictly related to a firm's size in the Finnish market. Finally, Filbeck and Lee (2000) find that small family businesses use different and less sophisticated techniques than larger family firms. Based on these findings, we argue that size is a driver of financial policy sophistication.

H4: Larger family firms are more financially sophisticated than smaller ones.

4. Data and Methodology

We focused our analysis on the province of Milan, the area with the strongest concentrations of small firms in Italy. We collected our data in collaboration with the Chamber of Commerce of Milan. In their census AIDI dataset, there are 14,571 small-to-mid-size firms in Milan in 2002.

We restricted our universe to consider firms that are small businesses according to the EU definition (see Section 2) and have a single owner with absolute control, that is, more than 50% of the ownership. Our sample thus satisfies the requirement to be considered small, and the first of the three requirements (majority control by the family; involvement of the family in the business; and recognition of family firm by the CEO) for the firm to be considered as family-run. Our questionnaire allows us to check for the other two requirements as well.

We sent our questionnaire to 544 businesses.[3] The sample closely replicates the composition of the screened universe regarding the number of firms in each industry and the average number of employees in each firm. The questionnaire response rate was rather high: 205 firms, or 38%,

[3] These are the companies annually surveyed by the Chamber of Commerce that satisfy our first two requirements to be considered small family firms, that is they are small businesses according to the EU definition and they have a single owner with absolute control.

returned it. This is probably explained by the fact that the questionnaire was introduced along with the annual survey of the Chamber of Commerce.[4] The questionnaire has five sections:

1) General information about the firm: legal status, year of constitution, industry, turnover rate, and level and type of export;
2) Ownership structure and governance: number and share of shareholders, number of family members involved in the business, presence of external shareholders, number of generations involved in the business, presence of an internal or external manager, number of family members on the board, recognition by the CEO of being a family firm, existence of parent firms, number of branches, and presence of a fund in the ownership structure;
3) General information about the financial management and the key financial decision makers: number of banks (native and foreign) used by the firm, purchase of products from investment banks, and presence of an external CFO;
4) Products purchased: electronic fund transfers, remote banking, cash management, international bank transfers, corporate credit cards, bill discounting, advances subject to collection, goods loans, factoring, financial leasing, operating leasing, loans, pool lending, commercial papers, finance bills, money at short notice (short money), futures, options, swaps, forwards, securitization, M&A, leveraged buy-outs (LBO), management buy-outs (MBO), and debt restructuring advice;[5]
5) Reasons for satisfaction or dissatisfaction in the relations with banks: products offered, costs, and others.

4 The distribution of the firms that answered the questionnaire replicates the sample, and consequently, the universe of firms. The only exception is in the "agriculture, hunting and forestry" industry, from which we received no answer, but those firms comprise only 1% of our whole small business firms universe. We also studied firms that did not reply. They do not show particular characteristics in terms of sector, employees, age, and legal status. For all these reasons, we do not think we have incurred any response or geographical bias.

Analyzing the questionnaire results against our definition of a family firm, we find that all but 18 of the companies in our sample are family businesses, in the sense that they satisfy the remaining two requirements (family involvement in the business and recognition by the CEO of being a family-run company). In the 18 exceptions, the family is no longer involved in the business and the CEO does not consider the firm as family run, due to the fact that the business is transitioning to non-family status. Table 1 contains descriptive statistics of the main aspects analyzed.

*** * * Insert Table 1 about here * * ***

As mentioned above, the use of complex financial products is our proxy for financial policy sophistication. We define financial products as "complex" when firms use them infrequently compared to other products, or when the products require particular skills and expertise to manage them.[6] Our complex financial products are the following.

1) Corporate finance products: M&A, LBO, MBO, and debt restructuring advice;

2) Cash management products: cash management and short money;

3) Corporate lending products: factoring, financial leasing, syndicated loans, and commercial paper advisory and structuring;

4) Risk management products: futures, swaps, options, and forwards.

[5] Within the questionnaire sent, "purchased product" is considered a product that the firm has bought at least once in the last two years.

[6] As mentioned above, we analyze a broader range of financial products, including the simplest ones, such as electronic fund transfers and payments. Almost every firm uses these simple products, while the complex ones are used by a lower percentage of businesses.

These four categories of products (corporate finance, cash management, corporate lending, and risk management) serve very different aims. Nevertheless, we gauge them at the same level of complexity. Table 2 summarizes the use of complex financial products by the firms in our sample.

*** * * Insert Table 2 about here * * ***

We run four regressions for each of our four product classes. For each product class the dependent variable is equal to the number of products adopted within that class. For example, in the corporate finance we have a total of four products: M&A, LBO, MBO, and debt restructuring advisory. In this case, the dependent variable takes values in the range from zero to four.[7]

By considering the total number of products adopted we implicit assign the same weight to each product within the same class. We do this deliberately, because we aim at understanding the firm's overall financial policy, rather than the drivers of each single product. The only differentiation we make is related to the product category.

According to our hypotheses, our model is the following:

$$y_i = a_i^j * Generation^j + b_i * Manager + c_i * CFO + d_i * ExternalS + e_i * Employee + f_i * InvestmentB$$

$$+ g_i * Bank + h_i * ControlVariables + \varepsilon_i$$

With:

- y_i = products class values, with i=1, ..., 4 (corporate finance, cash management, corporate lending, risk management products).
- Generation = generation of the current owner, with j=1, …, 3 (first generation, second generation, third generation and older). We use dummy variables with the first generation as

[7] It is appropriate to sum the number of products adopted since there is low correlation among them in each class, as shown in Table A, B, C, and D in the Appendix. If the adoption of products were highly correlated the regressions would have been biased.

the benchmark. We denominate the second generation as SecondG and the third and older generations as ThirdOlderG. We expect insignificant values for a_1 and a_2 (first and second generation) and significant and positive value of a_3 (third generation and older).

- Manager = dummy variable for the existence of an external manager. We expect a positive coefficient.
- CFO = dummy variable for the presence of an external CFO. We expect a positive coefficient.
- ExternalS = dummy variable for the existence of an external shareholder. We expect a positive coefficient.
- Employee = number of employees of the firms used as a proxy for size. We expect a positive coefficient.
- InvestmentB = dummy variable for the existence of an investment bank from which the firm has bought at least one product different from the ones counted in our dependent variables. If a firm used an investment bank to buy a product other than the complex ones we account for, the investment bank could establish a relationship with the firm, acting as a kind of external CFO. Hence, we expect a positive coefficient for this variable.
- Bank = number of commercial banks from which the firm has bought at least one product. One might reason that the higher the number of banks, the higher the chance of using sophisticated financial products; on the other hand, the lower the number of banks, the greater the chance that a single bank could establish a strong relationship with a firm and advise it to purchase more complex financial products (Boot and Thakor 2000). We do not have any expectation about the sign of this variable coefficient.
- ControlVariables = industry and existence of a parent firm. As control variables, we use the industry type as classified by Pavitt (1984). We consider the supplier dominated sector as the benchmark, with dummy variables ScaleIntensive, SpecializedSupplier, and

ScienceBased. Likewise, we control for the presence of a parent firm with the dummy Parent, as a parent firm may buy financial products on behalf of branch firms. We do not have any expectation about the sign of the control variables coefficients

5. Results and Discussion

*** * * Insert Table 3 about here * * ***

Before discussing our results, we analyze the correlation structure between the independent variables. As shown in Table 3, there are several significant correlations:

1. Manager and CFO are both correlated with the ExternalS (correlations of 0.587 and 0.381, with *p*-values of 0.000 and 0.000, respectively). An external shareholder could probably be more willing to hire a non family professional than a family owner.
2. Employee is correlated with ThirdOlderG (correlation 0.431, *p*-value 0.000), possibly because the firm grows in size with each generation.
3. SecondG and ThirdOlderG are negatively correlated (correlation –0.464, *p*-value 0.000). By definition if a firm is in its second generation, it cannot be in its third or older generation.[8]
4. InvestmentB is correlated with Employee (correlation 0.439, *p*-value 0.000) and ThirdOlderG (correlation 0.326 and *p*-value 0.000), probably since the larger (Employee) and older (ThirdOlderG) the firm, the stronger the need for particular advice, expertise, and products (InvestmentB).
5. Bank is strongly correlated with Employee (correlation 0.682, *p*-value 0.000). It is very common in Italy for firms to have more than one bank instead of establishing a strong relationship with a single bank, especially as the firm grows in size (Pozzolo 2004).

[8] Note that the negative correlation is not equal to -1 because we use the first generation as the benchmark for the dummy variables pertaining to the other two generation variables.

6. ThirdOlderG is correlated with Bank (correlation 0.338, *p*-value 0.000), probably due to the fact that firms in their third generation or older tend to be larger than first and second-generation firms.
7. Manager is correlated with CFO (correlation 0.553, *p*-value 0.000). This is because external manager might better understand the importance of having an external finance specialist.
8. InvestmentB and CFO are correlated (correlation 0.325, *p*-value 0.000). An external CFO may better know the value of investment bank advice.

We now turn to the results of the regressions for each of the four product categories.

5.1. Corporate finance products

Table 4 reports the results for corporate finance products.

*** * * Insert Table 4 about here * * ***

Consistent with our first hypothesis, ThirdOlderG is significant at the 0.05 level and is positive. For corporate finance products, firms in their third and older generation are more willing and have more capital to acquire new companies rather than to grow internally. Such companies are also more likely to have an established reputation, and have grown enough either to raise a sufficient amount of debt for an LBO or to be a target for a leveraged acquisition or an MBO. Firms in the third and older generation, are more likely to have an external manager or CFO, and to incur in an MBO. Finally, these firms are more interested in restructuring debt, compared to firms in their first two generations.

Although it is significant at the 0.1 level, Employee shows a value close to zero, which means that size has a weak effect on the purchase of sophisticated corporate finance products.[9] Among the control variables, ScaleIntensive is significant at the 0.01 level and is positive, meaning that whether an industry is scale intensive affects the purchase of corporate finance products. It could be that firms in scale-intensive industries are more willing to make acquisitions to increase production capacity than firms in knowledge-driven industries. Manager, CFO, InvestmentB, ExternalS, and Parent are not significant.

Summing up, (apart from the controls), the only variable that explains financial complexity in the area of corporate finance is whether the firm is in its third generation and older. Therefore, for this category of products, only H1 is accepted, H2 and H3 are rejected, and H4 has weak support.

Due to the high number of correlations, we run diagnostic statistics to understand if our regressions are affected by multicollinearity (see Appendix, Tables E and F). Eigenvalues statistics show that we are not incurring a multicollinearity problem. This is also suggested by the analysis of tolerance and the variance inflation factors. Checks for heteroscedasticity also show no problems for our regressions.

5.2. Cash management products

We analyze cash management products using the same independent variables, with results summarized in Table 5.

*** * * Insert Table 5 about here * * ***

CFO is significant at the 0.01 level and positive. ThirdOlderG is significant at the 0.05 level and also positive, while Employee is significant at the 0.1 level with a value of around zero, as in

[9] We also measure size by asset amount and obtain the same results (available upon request).

the previous regression. In other words, purchasing cash management products seems to require specific financial skills. Interestingly, the presence of an external CFO, but not an external manager, is significant. Having a finance professional with in-depth knowledge of the usefulness of cash management products appears to be the main driver for their purchase. The adoption of sophisticated cash management services is also driven by the number of family generations of the firm. As in the case of corporate finance products, younger firms do not have or feel the need for cash management products.

As before, size is significant at the 0.1 level, but with a value close to zero. The variable does not have a strong effect on the purchase of sophisticated cash management products. InvestmentB, Bank, ExternalS, and Parent are not significant. Also, and unlike the previous regression, industry does not explain the purchase of sophisticated cash management services.

Therefore, H1 is accepted, H2 is only partially verified, H3 is rejected, and H4 has weak support.

5.3. Corporate lending products

Table 6 contains the results of our regression for corporate lending products.

*** * * Insert Table 6 about here * * ***

As one might expect, the products analyzed are not particular to specific industries or the family generation that runs the firm (which is clearly linked to the firm's age). Differently from corporate finance services, corporate lending products are important at every stage of a company's development. While a start up is unlikely to need debt restructuring, financial leasing or factoring may be needed at any time. As in the previous regression, industry variables do not explain variation in the use of corporate lending products.

Interestingly, the only significant (at the 0.05 level) variable for corporate lending products is the presence of an external shareholder, with the hypothesized positive sign. According to this finding, external shareholders affect more fundraising and day-to-day operations than corporate finance and cash management activities. A further step would be to analyze in more detail the impact of different types of external shareholders.

In conclusion, for corporate lending products, only H3 is accepted, while H1, H2, and H4 are rejected.

5.4. Risk management products

Table 7 summarizes our findings for risk management products.

**** * Insert Table 7 about here * * ***

Number of generations, size, and control variables are not significant. Industry variables have the same impact as in the cash management and corporate lending regressions, probably for the same reasons discussed above. Only two variables are significant: InvestmentB (significant at the 0.01 level) and ExternalS (significant at the 0.1 level), both with a positive sign.

As with corporate lending products, the presence of outside investors drives the choice of sophisticated products linked to day-to-day activities (in this case risk management) through the use of products such as futures, swaps, forwards, and options. Interestingly, InvestmentB is a key variable only in this class of products. This could be linked to the fact that, if a firm has bought a product from an investment bank, the investment bank has a better knowledge of the firm's management and thus a higher chance of establishing a relationship with it, pushing the sale of products that do not only have risk management functions, but are also speculative.

As with corporate lending, risk management products are important at each stage of a firm's life. Similarly, size is not important for firms that operate in businesses that face particular financial risks. It would be interesting to extend our analysis by examining the number of products purchased and the amount protected from risk.

In conclusion, only H3 is accepted, while H1, H2, and H4 are rejected.

Table 8 summarizes the results of the paper for all the product categories analyzed.

**** * Insert Table 8 about here * * ***

6. Conclusions

The role of family firms has been recognized over the years, with studies focusing on several aspects of their behavior. Little attention has been paid, however, to the financial products adopted and their drivers. Analyses related to the financial management of family firms have focused mainly on financial techniques, such as risk management and capital budgeting.

Small family firms have special financial needs that are particularly linked to the number of family generations that have run the firm, the presence of an external CFO and shareholder, and, to a lesser extent, the size of the firm. The number of generations affects the purchase of corporate finance and cash management products, though not of the corporate lending or risk management ones. We argue that the former products are more important later in a firm's life. The need for external growth, debt restructuring, and cash management is uncommon in the first phases of the firm's development. Once the firm has accumulated enough cash, built its reputation, has stable cash flow, and wants to grow or better manage its cash or debt, it is more willing to search for corporate finance and cash management products.

Generation does not affect the purchase of corporate lending and risk management products, which are basically used for fund raising and to protect the business against risk. The adoption of these products does not depend on the stage of development of the company.

The presence of an external manager has no impact on the use of the complex financial products considered in this study. The literature has focused on the presence of an external versus a family manager regarding differences in performance, with mixed results. We found that the presence of an external CFO is significant, though only in the use of cash management products. We could argue that a financial professional understand better the importance of cash management products. However, we do not know why the presence of a non-family CFO has no effect on the use of all the others product categories.

The presence of an external shareholder is a driver for the adoption of both corporate lending and risk management products. We argue that non-family members are more focused on fundraising and day-to-day activity rather than on cash management and corporate finance.

Finally, size does not have a strong impact on all the complex financial management product categories. Size is a significant variable in the use of corporate finance and cash management products, but its coefficients are close to zero. Clearly, among small family firms, differences in size are not large enough to justify completely different uses of complex financial management products.

These results have clear practical implications for small family firms. Financial institutions could offer customized products to small family firms by using the variables identified in this study to target different firms with different products. More careful targeting by banks would not only be profitable for banks but also have an important impact on the development of small family firms.

More research is needed in the area to address the following questions: Are our results country-specific or do they hold more generally? What is the effect of the adoption of different financial policies on individual firm performance?

References

Aronoff, C.E. (1998). "Megatrends in Family Business," *Family Business Review*, 11 (3), 181-185.

Adams, R., H. Almeida, and D. Ferreira (2004). "Understanding the Relationship Between Founder-CEOs and Corporate Performance," Working Paper, New York University.

Anderson, R.C., and D.M. Reeb (2003). "Founding Family Ownership and Firm Performance: Evidence from the S&P 500," *Journal of Finance*, 58 (3), 1321-1328.

Barnes, L.B. and S.A. Hershon (1976). "Transferring Power in Family Business," *Harvard Business Review*, 54 (4), 105-114.

Barry, B (1989). "The Development of Organization Structure in the Family Firm," *Family Business Review*, 2 (3), 293-315.

Basel Committee on Banking Supervision (2004). "International Convergence on Capital Measurement and Capital Standards: a Revised Framework."

Beckhard, R., and W.G. Dyer (1983). "Managing Continuity in Family-Owned Businesses," *Organizational Dynamics*, 12 (1), 5-12.

Bennedsen, M., K. Nielsen, and D. Wolfenzon (2004). "The Family Behind the Family Firm: Evidence from CEO Transitions," Working Paper, CEBR.

Bird, B., H. Welsch, J. Astrachan, and D. Pistrui (2002). "Family Business Research: the Evolution of an Academic Field," *Family Business Review*, 15 (4), 337-351.

Boot, A.W.A., and A.V. Thakor (2000). "Can Relationship Banking Survive Competition?" *Journal of Finance*, 55 (2), 679-713.

Burkart, M., F. Panunzi, and A. Shleifer (2003). "Family Firms," *Journal of Finance*, 58 (5), 2167-2202.

CEC, (2003). "Commission Recommendation of 06/05/2003 Concerning the Definition of Micro, Small and Medium-Sized Enterprises," Brussels.

Churchill, N.C., and K.J. Hatten (1987). "Non Market Based Transfers of Wealth and Power: a Research Framework for Small Business," *American Journal of Small Business*, 11 (3), 51-64.

Claessens, S., J. Djankov, and L. Lang (2000). "The Separation of Ownership and Control in East Asian Corporations," *Journal of Financial Economics*, 58 (1-2), 81-112.

Cole, R., and J. Wolken (1995). "Financial Services Used by Small Business: Evidence from the 1993 National Survey on Small Business Finances," *Federal Reserve Bulletin*, July, 629-666.

Coleman, S., and R. Carsky (1999). "Sources of Capital for Small Family-Owned Businesses: Evidence from the National Survey of Small Business Finances," *Family Business Review*, 12 (1), 73-85.

Davis, P. (1983). "Realizing the Potential of the Family Business," *Organizational Dynamics*, 12 (1), 47-56.

Donnelley, R. (1964). "The Family Business," *Harvard Business Review*, 42 (4), 94-105.

Dyer, W.G. (1986). *Cultural Changes in Family Firms: Anticipating and Managing the Business in Family Transitions*. San Francisco, California: Jossey-Bass.

Faccio, M., and L. Lang (2002). "The Ultimate Ownership of Western European Corporations," *Journal of Financial Economics*, 65 (3), 365-395.

Filbeck, G., and S. Lee (2000). "Financial Management Techniques in Family Businesses," *Family Business Review*, 13 (3), 201-217.

Gallo, M.A., and A. Vilaseca (1996). "Finance in Family Business," *Family Business Review*, 9 (4), 387-401.

Perez-Gonzalez, F.P. (2001). "Does Inherited Control Hurt Firms' Performance?" Ph.D. Dissertation, Columbia University, 1-37.

Handler, W. (1989). "Methodological Issues and Considerations in Studying Family Business," *Family Business Review*, 2 (3), 257-276.

La Porta, R., F. Lopez de Silanes, and A. Shleifer (1999). "Corporate Ownership Around the World," *Journal of Finance*, 54 (2), 471-517.

Lansberg, I.S., E.L. Perrow, and S. Rogolsky (1988). "Family Business as an Emerging Field," *Family Business Review*, 1(2), 119-143.

McCann, J.E., A.Y. Leon-Guerrero, and J.D. Jr. Healey (2001). "Strategic Goals and Practices of Innovative Family Business," *Journal of Small Business Management*, 39 (1), 50-59.

McConaughy, D.L., and G.M. Phillips (1999). "Founders Versus Descendants: the Profitability, Efficiency, Growth Characteristics, and Financing in Large, Public, Founding-Family-Controlled Firms," *Family Business Review*, 12(2), 123-131.

Morck, R., D. Stangeland, B. Yeung (2000). "Inherited Wealth, Corporate Control and Economic Growth?" in *Concentrated Corporate Ownership*, Ed. R. Morck, Chicago, Illinois, University of Chicago Press.

Morck, R., and B. Yeung (2003). "Agency Problems in Large Family Business Groups," *Entrepreneurship: Theory and Practice*, Summer, 367-382

Niskanen, J., and M. Niskanen (2005). "The Determinants of Corporate Trade Credit Policies in a Bank-Dominated Financial Environment: the Case of Finnish Small Firms," *European Financial Management*, forthcoming.

Paisner, M. (1999). *Sustaining the Family Business*. Reading, Massachusetts: Perseus Books.

Pavitt, K. (1984). "Sectoral Patterns of Technical Change: Towards a Taxonomy and a Theory," *Research Policy*, 13, 343-370.

Pozzolo, A.F. (2004). "The Role of Guarantees in Bank Lending," *Bank of Italy, Temi di Discussione*, 528.

Rosenblatt, P.C., L. de Milk, R.M. Anderson, and P.A. Johnson (1985). *The Family in Business: Understanding and Dealing with the Challenges Entrepreneurial Families Face*, San Francisco, California: Jossey Bass.

Sraer, D., and D. Thesmar (2004). “Performance and Behavior of Family Firms: Evidence from the French Stock Market,” Working Paper, CEPR.

Stern, M.H. (1986). *Inside the Family-Held Firms*, New York, New York: Harcourt Brace Jovanovich.

Trento, S., and S. Giacomelli (2004). “Ownership and Control of Italian Firms: What has Happened Within 1993-2003?” *Bank of Italy, Temi di Discussione*, 550.

Villalonga, B., and R. Amit (2005). “How do Family Ownership, Control, and Management Affect Firm Value?” paper presented at the AFA 2005 Philadelphia Meeting, USA and at the EFA 2004 Maastricht Meetings, Netherlands.

Ward, J.W. (1987). *Keeping the Family Business Healthy: How to Plan for Growth, Profitability, and Family Leadership*, San Francisco, California: Jossey Bass.

Table 1

Descriptive Statistics of Variables Analyzed

Variables	Percentage
Firms in their first generation	34.22
Firms in their second generation	44.92
Firms in their third generation and older	20.86
Presence of en external member in the ownership structure	16.58
Presence of en external manager	22.46
Presence of en external CFO	16.58
Firms that purchase products[a] from an investment banking	15.50
Firms that purchase products from one bank	13.90
Firms that purchase products from two to four banks	57.75
Firms that purchase products from five to seven banks	21.39
Firms that purchase products from more than seven banks	6.95

Note: (a) Different from the ones counted in our dependent variables

Table 2

Use of Complex Products

Product Categories	Products	Percentage of Small Family Firms that Use Them
Corporate Finance	M&A advisory	60.43
	LBO	45.45
	MBO	34.76
	Debt restructuring advisory	31.02
Cash Management	Cash management	29.41
	Short money	13.90
Corporate Lending	Factoring	56.68
	Financial leasing	77.01
	Syndicated loans	33.16
	Commercial paper structuring and advisory	61.50
Risk Management	Future	16.58
	Option	28.88
	Swap	17.65
	Forward	28.88

Table 3

Correlations Among the Independent Variables Used in the Regressions for All the Four Categories of Products

	ScaleIntensive	SpecializedSupplier	ScienceBased	ExternalS	Manager	Employee	SecondG	ThirdOlderG	Parent	Bank	InvestmentB	CFO
ScaleIntensive	1	-0.157*	-0.107	-0.145*	-0.045	-0.040	-0.003	-0.034	-0.019	-0.077	-0.140	-0.048
		(0.032)	(0.147)	(0.047)	(0.538)	(0.588)	(0.966)	(0.648)	(0.795)	(0.294)	(0.056)	(0.514)
SpecializedSupplier		1	-0.157*	0.007	-0.061	-0.048	-0.047	0.057	-0.020	-0.059	0.060	0.007
			(0.032)	(0.921)	(0.406)	(0.515)	(0.519)	(0.435)	(0.787)	(0.419)	(0.418)	(0.921)
ScienceBased			1	0.245**	0.215**	0.120	0.033	0.100	0.020	-0.007	0.211**	0.098
				(0.001)	(0.003)	(0.101)	(0.651)	(0.172)	(0.784)	(0.921)	(0.004)	(0.181)
ExternalS				1	0.587**	0.260**	0.031	0.196**	-0.077	-0.030	0.047	0.381**
					(0.000)	(0.000)	(0.673)	(0.007)	(0.298)	(0.680)	(0.520)	(0.000)
Manager					1	0.219**	0.081	0.197**	-0.134	0.070	0.159*	0.553**
						(0.003)	(0.272)	(0.007)	(0.068)	(0.340)	(0.030)	(0.000)
Employee						1	-0.153*	0.431**	-0.159*	0.682**	0.439**	0.244**
							(0.036)	(0.000)	(0.030)	(0.000)	(0.000)	(0.001)
SecondG							1	-0.464**	-0.037	-0.203**	-0.120	0.060
								(0.000)	(0.611)	(0.005)	(0.103)	(0.415)
ThirdOlderG								1	-0.111	0.338**	0.326**	0.161*
									(0.130)	(0.000)	(0.000)	(0.028)
Parent									1	-0.137	-0.091	-0.139
										(0.062)	(0.215)	(0.058)
Bank										1	0.291**	0.032
											(0.000)	(0.665)
InvestmentB											1	0.325**
												(0.000)
CFO												1

Notes: * Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).
p values in parenthesis

Table 4

Regression Coefficients for Corporate Finance Products

Variables	Unstandardized Coefficients		Standardized Coefficients	*t-statistics*	Significance level
	Beta	Std. Error	*Beta*		
(Constant)	1.140	0.193		5.909	0.000
ScaleIntensive	0.719	0.235	0.215	3.060	0.003
SpecializedSupplier	0.205	0.177	0.081	1.162	0.247
ScienceBased	-0.366	0.244	-0.110	-1.503	0.135
Employee	0.006	0.003	0.212	1.943	0.054
ExternalS	-0.023	0.243	-0.009	-0.096	0.923
Manager	-0.113	0.224	-0.048	-0.506	0.614
SecondG	0.031	0.154	0.016	0.200	0.841
ThirdOlderG	0.487	0.209	0.200	2.329	0.021
Parent	0.058	0.148	0.027	0.392	0.696
Bank	0.024	0.047	0.050	0.505	0.614
InvestmentB	0.137	0.225	0.050	0.610	0.543
CFO	0.288	0.228	0.108	1.261	0.209
R Square	0.221				
Adjusted R Square	0.167				

Table 5

Regression Coefficients for Cash Management Products

Variables	Unstandardized Coefficients		Standardized Coefficients	*t-statistics*	Significance level
	Beta	Std. Error	*Beta*		
(Constant)	0.085	0.114		0.747	0.456
ScaleIntensive	0.039	0.139	0.019	0.283	0.778
SpecializedSupplier	0.069	0.104	0.044	0.659	0.511
ScienceBased	0.060	0.144	0.029	0.420	0.675
Employee	0.003	0.002	0.178	1.716	0.088
ExternalS	-0.047	0.144	-0.029	-0.326	0.744
Manager	-0.084	0.132	-0.058	-0.639	0.524
SecondG	-0.096	0.091	-0.078	-1.056	0.292
ThirdOlderG	0.277	0.123	0.184	2.247	0.026
Parent	-0.073	0.087	-0.055	-0.835	0.405
Bank	0.045	0.028	0.152	1.602	0.111
InvestmentB	0.062	0.133	0.037	0.465	0.643
CFO	0.361	0.135	0.220	2.684	0.008
R Square	0.293				
Adjusted R Square	0.244				

Table 6

Regression Coefficients for Corporate Lending Products

Variables	Unstandardized Coefficients		Standardized Coefficients	*t-statistics*	Significance level
	Beta	Std. Error	*Beta*		
(Constant)	1.755	0.191		9.187	0.000
ScaleIntensive	-0.325	0.233	-0.099	-1.397	0.164
SpecializedSupplier	-0.134	0.175	-0.054	-0.766	0.445
ScienceBased	-0.040	0.241	-0.012	-0.167	0.867
Employee	0.004	0.003	0.146	1.329	0.186
ExternalS	0.512	0.241	0.196	2.129	0.035
Manager	0.034	0.221	0.015	0.154	0.878
SecondG	0.221	0.153	0.114	1.448	0.149
ThirdOlderG	0.202	0.207	0.085	0.976	0.331
Parent	-0.126	0.146	-0.060	-0.863	0.390
Bank	0.051	0.047	0.109	1.094	0.275
InvestmentB	0.349	0.223	0.130	1.569	0.118
CFO	-0.079	0.226	-0.030	-0.349	0.728
R Square	0.211				
Adjusted R Square	0.156				

Table 7

Regression Coefficients for Risk Management Products

Variables	Unstandardized Coefficients		Standardized Coefficients	*t-statistics*	Significance level
	B	*Std. Error*	Beta		
(Constant)	0.531	0.200		2.653	0.009
ScaleIntensive	-0.241	0.244	-0.070	-0.987	0.325
SpecializedSupplier	0.210	0.183	0.081	1.147	0.253
ScienceBased	-0.302	0.253	-0.088	-1.193	0.234
Employee	-0.001	0.003	-0.025	-0.225	0.822
ExternalS	0.473	0.252	0.174	1.873	0.063
Manager	0.001	0.232	0.000	0.005	0.996
SecondG	-0.130	0.160	-0.064	-0.813	0.417
ThirdOlderG	-0.058	0.217	-0.023	-0.265	0.791
Parent	0.015	0.153	0.007	0.098	0.922
Bank	0.076	0.049	0.157	1.554	0.122
InvestmentB	0.877	0.233	0.315	3.760	0.000
CFO	0.024	0.237	0.009	0.102	0.919
R Square	0.196				
Adjusted R Square	0.140				

Table 8

Summary of Findings

Hypotheses		Products			
		Corporate Finance[a]	**Cash Management**	**Corporate Lending**	**Risk Management[b]**
H1	Third-generation and older small family firms are more financially sophisticated than first and second-generation ones.	Accepted	Accepted	Rejected	Rejected
H2	Small family firms with an external manager or CFO are more financially sophisticated.	Rejected	Partially verified (only for external CFO)	Rejected	Rejected
H3	Small family firms with external shareholders are more financially sophisticated.	Rejected	Rejected	Accepted	Accepted
H4	Larger family firms are more financially sophisticated than smaller ones.	Weak Support	Weak Support	Rejected	Rejected

Notes: (a) For corporate finance products, firms in the scale intensive industries are more financially sophisticated than companies in other industries

(b) For risk management products, firms that have bought at least one product from an Investment Bank (different from the ones counted in our dependent variables) are more financially sophisticated than others companies.

Appendix

Table A

Correlations Between Corporate Finance Products

	Statistical Values	M&A	LBO	MBO	Debt Restructuring
M&A	Pearson Correlation	1	-0.052	0.108	0.046
	Sig. (2-tailed)		0.480	0.140	0.531
	N	187	187	187	187
LBO	Pearson Correlation	-0.052	1	0.010	0.015
	Sig. (2-tailed)	0.480		0.889	0.841
	N	187	187	187	187
MBO	Pearson Correlation	0.108	0.010	1	-0.028
	Sig. (2-tailed)	0.140	0.889		0.702
	N	187	187	187	187
Debt Restructuring	Pearson Correlation	0.046	0.015	-0.028	1
	Sig. (2-tailed)	0.531	0.841	0.702	
	N	187	187	187	187

Notes: * Correlation is significant at the 0.05 level (2-tailed)
** Correlation is significant at the 0.01 level (2-tailed).

Table B

Correlations Between Cash Management Products

	Statistical Values	Cash Management	Short Money
Cash Management	Pearson Correlation	1	0.148*
	Sig. (2-tailed)		0.044
	N	187	187
Short Money	Pearson Correlation	0.148*	1
	Sig. (2-tailed)	0.044	
	N	187	187

Notes: * Correlation is significant at the 0.05 level (2-tailed)
** Correlation is significant at the 0.01 level (2-tailed).

Table C

Correlations Between Corporate Lending Products

	Statistical Values	Factoring	Financial Leasing	Syndicated Loan	Commercial Paper
Factoring	Pearson Correlation	1	-0.067	0.088	-0.004
	Sig. (2-tailed)		0.360	0.229	0.955
	N	187	187	187	187
Financial Leasing	Pearson Correlation	-0.067	1	-0.101	0.168*
	Sig. (2-tailed)	0.360		0.169	0.021
	N	187	187	187	187
Syndicated Loan	Pearson Correlation	0.088	-0.101	1	0.044
	Sig. (2-tailed)	0.229	0.169		0.553
	N	187	187	187	187
Commercial Paper	Pearson Correlation	-0.004	0.168*	0.044	1
	Sig. (2-tailed)	0.955	0.021	0.553	
	N	187	187	187	187

Notes: * Correlation is significant at the 0.05 level (2-tailed)
** Correlation is significant at the 0.01 level (2-tailed).

Table D

Correlations Between Risk Management Products

	Statistical Values	Future	Option	Swap	Forward
Future	Pearson Correlation	1	-0.030	0.171 *	0.033
	Sig. (2-tailed)		0.682	0.019	0.651
	N	187	187	187	187
Option	Pearson Correlation	-0.030	1	0.169*	0.219**
	Sig. (2-tailed)	0.682		0.021	0.003
	N	187	187	187	187
Swap	Pearson Correlation	0.171*	0.169*	1	0.355**
	Sig. (2-tailed)	0.019	.021		0.000
	N	187	187	187	187
Forward	Pearson Correlation	0.033	0.219**	0.355**	1
	Sig. (2-tailed)	0.651	0.003	0.000	
	N	187	187	187	187

Notes: * Correlation is significant at the 0.05 level (2-tailed)
** Correlation is significant at the 0.01 level (2-tailed).

Table E

Collinearity Diagnostics

Dimension	Eigenvalue	Condition Index
1	5.308	1.000
2	1.496	1.884
3	1.182	2.119
4	0.994	2.311
5	0.942	2.374
6	0.747	2.666
7	0.620	2.926
8	0.594	2.988
9	0.354	3.872
10	0.293	4.253
11	0.275	4.393
12	0.133	6.318
13	0.060	9.390

Table F

Collinearity Statistics

Variables	Correlations			Collinearity Statistics	
	Zero-order	Partial	Part	Tolerance	VIF
(Constant)					
ScaleIntensive	0.186	0.226	0.205	0.906	1.103
SpecializedSupplier	0.068	0.088	0.078	0.917	1.091
ScienceBased	-0.090	-0.113	-0.101	0.843	1.186
Employee	0.336	0.146	0.130	0.376	2.660
Manager	0.064	-0.038	-0.034	0.500	1.999
SecondG	-0.133	0.015	0.013	0.738	1.355
ThirdOlderG	0.308	0.174	0.156	0.605	1.654
Bank	0.250	0.038	0.034	0.454	2.203
InvestmentB	0.198	0.046	0.041	0.658	1.520
CFO	0.157	0.095	0.084	0.606	1.650
Parent	-0.057	0.030	0.026	0.945	1.058
ExternalS	0.041	-0.007	-0.006	0.533	1.877

Table G

Definitions of the complex products studied

Product Categories	Products	Definition
Corporate Finance	M&A Advisory	M&A involves the corporate finance strategy and management referred to the merging and acquiring of different companies as well as other assets. An acquisition can involve different funding policies (equity, debt, mezzanine or a mix of the three) and different methods of payment (pure cash, pure equity or a mix of the two). A merger is a combination of two companies into one larger company. Such actions require a stock payment and the definition of a proper exchange ratio between the bidder and the target firms.
	LBO	An LBO occurs when a financial sponsor gains the majority of the target company's equity using a significant amount of senior or subordinated/mezzanine debt (in the form of bank loans or corporate bonds).
	MBO	An MBO occurs when a company's managers buy or acquire a large part of the company. The goal of such a buyout may be to strengthen the managers' interest in the success of the company. In most cases, the management will then take the company private.
	Debt restructuring	A method used by companies with outstanding debt obligations to alter the terms of the debt agreements.
Cash Management	Cash management	The strategy and relative tools aimed at optimizing the management and investment of liquidity.
	Short money	A line of credit that allows the customer to borrow money for his liquidity needs. It is a particular kind of short term lending by banks.
Corporate Lending	Factoring	A type of asset-financing arrangement in which a company uses its receivables as collateral in a financing agreement. The company receives an amount that is equal to a reduced value of the receivables pledged. The age of the receivables, has a large effect on the amount a company will receive. The older the receivables, the less the company will cash in.
	Financial leasing	A written agreement under which a property owner allows a tenant to use the property or asset for a specified period of time and rent with the right to purchase it at the residual value.
	Syndicated loan	A very large loan in which a group of banks work together to provide funds to one borrower. There is usually one lead bank that takes a small percentage of the loan and syndicates the rest to other banks.
	Commercial paper	An unsecured obligation issued by a corporation or bank to finance its short-term credit needs, such as accounts receivable and inventory. Maturities typically range from 2 to 270 days.
Risk Management	Future	A standardized, transferable, exchange-traded contract that requires delivery of a commodity, bond, currency, or stock index, at a specified price, on a specified future date. Futures are distinguished from generic forward contracts in that they contain standardized terms, trade on a formal exchange, are regulated by overseeing agencies, and are guaranteed by clearinghouses.
	Option	The right, but not the obligation, to buy (for a call option) or sell (for a put option) a specific amount of a given stock, commodity, currency, index, or debt, at a specified price (the strike price) during a specified period of time.
	Swap	An exchange of streams of payments over time according to specified terms. The most common type is an interest rate swap, in which one party agrees to pay a fixed interest rate in return for receiving an adjustable rate from another party.
	Forward	A contract obligating one party to buy and another other party to sell a financial instrument, equity, commodity or currency at a specific future date.