

BANCA MARCH-IE STUDY

The “family premium” in listed European businesses:

is it really a consequence of the family dimension
of the company?



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March Gestión (MGF) is the investment boutique of Banca March. With over €4 billion and a team of 30 professionals, its investment philosophy involves creating value while protecting wealth. Its main areas of expertise are global equity and asset allocation. MGF has received numerous awards for its management over recent years.

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Dear Reader,

It is my pleasure to introduce the 2nd Banca March - IE Business School Family Business Report. As a family bank with over 100 years of history behind it, and a habitual investor in other family businesses, the findings of this study are really quite striking, because they are so positive.

Hence, the publication of this report makes us doubly proud. Firstly, because we can do justice to all those family businesses around the world whose efforts and commitment generate jobs and wealth, even in tough times like the ones we are facing today. Then, because as investors in internationally listed family firms, The Family Businesses Fund we run has shown that these firms are a very profitable investment, with a cumulative return of over 30% in the first two years since the product was launched. Indeed, we are convinced that it will become one of our most profitable long-term funds.

I would also like to take this opportunity to acknowledge the excellent research by IE Business School professors, Cristina Cruz, and Laura Nuñez, without whose effort and dedication we would not today know a little bit more about the intriguing mystery of the greater long-term profitability of family businesses.

We hope that you will find this report both interesting and informative.

Yours faithfully,



José Luis Jiménez Guajardo-Fajardo
Chief Executive Officer, March Gestión.

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I. Introduction

The 1st Banca March-IE Report on Family Businesses¹ examined value creation by listed European family businesses, over the period 2001-2010. The report defined a family business as one which meets two conditions:

A family business is one in which an individual or family holds at least 20% of the company's shares, and at least one family member is on the board of directors.

This definition seeks to set out the minimum conditions for family control of a company, since it is assumed that this control by family shareholders provides the company with distinguishing features that influence strategic decisions and, therefore, impact value creation.

Experts agree that the key distinguishing feature of family control is the fact that in family businesses maximising financial profit exists side-by-side with achieving other non-economic objectives which are important to the owner family. All these non-economic benefits are known as SOCIOEMOTIONAL WEALTH (SEW), and include aspects such as the ability to employ other family members, or pass on a legacy to future generations².

Preserving this socioemotional wealth becomes an end in itself for family owners and this means the family business takes on unique features. As mentioned in the 1st Report, some of these unique features have a positive effect on firm performance (e.g., greater long-term vision) whilst others, by contrast, have a negative impact (e.g., nepotism).

In the absence of conclusive findings about the net effect of family ownership on firm performance, the 1st Banca March-IE Report conducted an exhaustive study comparing the performance of listed European family businesses with non-family firms during the decade 2001-2010. The report's findings left no doubt: listed European family businesses generated higher stock returns in the period 2001-2010 and achieved a much higher return on assets (ROA) in addition to providing greater value in other aspects, such as job creation and greater stability in times of crisis.

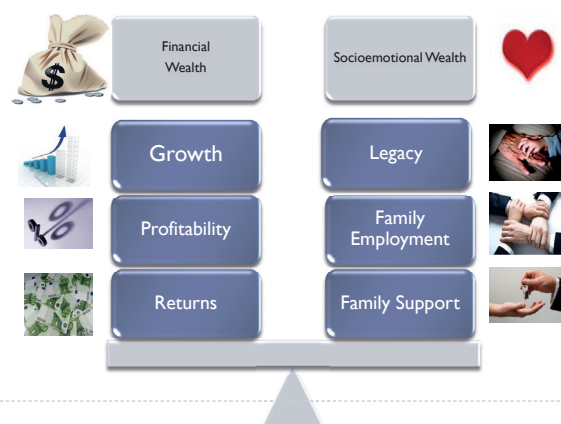


Diagram 1. Family business objectives

In spite of the cogency of these findings, the study posed numerous questions about the factors determining the existence of this "family premium" among listed European companies.

Many of these questions were raised by readers of the 1st Banca March-IE Report. They were investors, portfolio managers, family owners, and many more people who, given the clear evidence of family businesses' greater ability to create value, wondered whether this "family premium" was actually due to the positive effects of family control or alternatively, the outcome of other factors.

¹ Cruz, C. and Nuñez, L. 2012 "Value creation in listed European family firms 2001-2010". <http://entrepreneurship.blogs.ie.edu/2012/06/19/la-creacion-de-valor-en-la-empresa-familiar-cotizada-europea/>

² Gomez-Mejia, L. R., Haynes, K., Nuñez-Nickel, M., Jacobson, K. J. L., & Moyano-Fuentes, J., 2007; Berrone, Cruz, Gomez-Mejia, 2012.

A recurring issue in these other factors is the relationship between risk and return in a family business. Classical financial theory avers there is a positive relationship between risk and stock returns, and argues that in an efficient market, it is not possible to obtain greater returns without incurring greater risks³. Additionally, research into family businesses indicates that their distinguishing features also impact their owners' approach to risk, as well as investors' perception of the risk associated with investing in this kind of firm. Hence it might well be the case that the higher return of a family business is due not so much to the positive effects of the family dimension, but rather is the upshot of the greater exposure to risk from investing in these firms.

Likewise, differences in the competitive environment and/or the features of the company were also identified as possible determinants of the "family premium". It is commonly accepted that factors concerning the country in which it operates, the industry in which it competes, and company size have an impact on the risk-return of a business. Hence the "family premium" may be reflecting not differences between family and non-family firms, but rather a higher concentration of family businesses in countries or sectors generating higher returns, or simply differences in size between the two types of firms.

Finally, differences in performance could also be due to differences between family businesses themselves. Family control of the company sets a family business apart from a non-family firm, but the degree of this family control varies from one family business to another. Factors affecting family control include, for example, the percentage of shares held by the family, the generational stage at which the company finds itself and the presence of family members on management bodies⁴. Thus the "family premium" might be related only to a particular type of family businesses.

The 2nd Banca March-IE Report seeks to answer our readers' "practical" questions about the existence of the "family premium", with the thoroughness to be expected of "academic" research. Specifically, the study analyses the impact of each of the factors shown in Diagram 2 on the risk-return of a family business. The ultimate goal is to determine whether the "family premium" of listed European family businesses is really the outcome of the positive effects of family control, or alternatively can be explained by other factors that have nothing to do with the family aspect of the company. Furthermore, given the heterogeneity of family businesses, the report also seeks to determine whether this "family premium" is attributable to all types of family businesses, or can only be associated with certain groups of them.

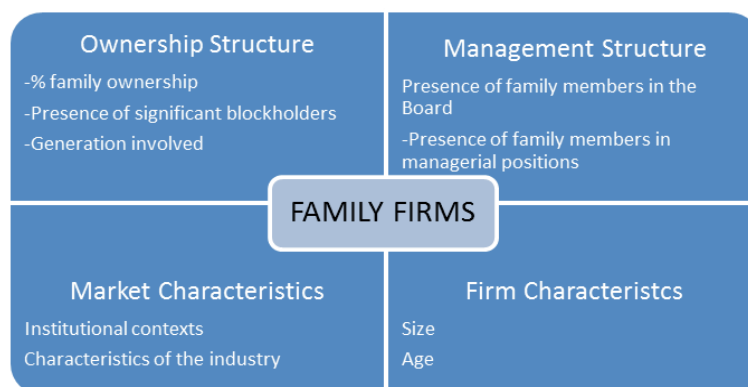


Diagram 2 shows all the possible factors that might affect the risk-return ratio in a family business.

³ Sharpe, W.F., 1964

⁴ Gomez-Mejia, Cruz, Berrone and De Castro, 2012

II. Objectives

Objective I. Analyse the risk-return ratio between family businesses (FBs) and non-family businesses (NFBs).

The findings of the 1st Banca March-IE Report seemed to suggest that family firms obtained higher stock returns despite having lower market risk. Given the importance of understanding this relationship, the 2nd Banca March-IE Report provides a much more comprehensive analysis of the risk-return ratio in family businesses and includes new risk indicators in order to answer the following question:

- Are the higher stock returns generated by European family businesses compared to non-family businesses a form of compensation for taking risks?

Objective II. Analyse the risk-return ratio between FBs and NFBs in terms of factors concerning the company's competitive environment and/or features.

The report seeks to determine whether the "family premium" is attributable to differences in context, related to the country in which the family business operates, or the industry in which it competes, or alternatively is due to differences in the size of family versus non-family businesses. Specifically, the 2nd Banca March-IE Report seeks to answer the following questions:

- Is the success of family businesses uniform across all European countries?
- Is the success of family businesses uniform across all sectors?
- Are there any differences between the risk-return of family firms depending on the company's size?

Objective III. Analyse the risk-return ratio between different types of family businesses.

The heterogeneity of FBs in terms of their family dimension raises the issue of whether the findings about the greater performance of FBs can be generalised to all types of FBs irrespective of the degree of family control or influence in the company. Thus, this third objective gives rise to the following questions which the 2nd Banca March-IE Report attempts to answer:

- Is there an optimal balance between family and market ownership of the company?
- How does the presence of the founder in a family business affect its risk-return?

Objective IV. Analyse market perception.

If there really are overall differences between FBs and NFBs, and if these differences are affected by the context in which the company operates, or its own features, it would be useful to learn how these differences are perceived by the markets. Likewise, if there are different types of FBs with different associated levels of risk and return, it is reasonable to ask whether the market values all types of FBs equally, or if instead, some are penalised more than others. These issues lead to the last of the questions that the 2nd Banca March-IE Report seeks to answer:

■ And what does the market think?

Since our objective is to examine in greater depth the factors determining the “family premium” that were confirmed in the first edition, this report uses the same sample of listed European family businesses. However, in order to tailor this sample to our new objectives, we have added numerous variables of interest to the study to achieve a final sample which, although smaller, provides much more accurate and detailed information. Specifically:

- The sample only includes countries with a significant number of listed companies whose market capitalisation is €50 million or more. This reduces the representativeness of the sample to 6 European countries.
- We introduced new risk indicators, making a distinction between economic, solvency, market and liquidity risk.
- We examined whether there were different patterns in the behaviour of family firms in the different European countries analysed.
- We performed comprehensive sector analysis to determine which sectors are dominated by family businesses and in which ones they are most profitable.
- We compiled data on the exact percentage of ownership held by the family during each of the 10 years considered in order to analyse the effect of family ownership on risk and return.
- We analysed family businesses individually to draw a distinction between family firms in which the founder is present, from those companies that have already weathered the generational handover.

III. Features of listed European family businesses⁶.

Final Sample of the 2nd Banca March-IE Report

- Listed non-financial companies.
- 6 countries: United Kingdom, France, Italy, Spain, Germany and Switzerland.
- 832 businesses: 31% (255) family and 69% (577) non-family.
- 10-year time horizon. Period 2001-2010.

The descriptive analysis of the sample⁷ confirms that FBs are indeed different from NFBs:

- FBs are smaller than NFBs in sales volume, total assets and market capitalisation.
- FBs live longer. The average age of an FB is 68 compared to 51 of an NFB, and the percentage of hundred-year-old firms is higher among FBs (25% of FBs are over 100 versus 17% for NFBs).



Figure 1. FB versus NFB size (EUR million)

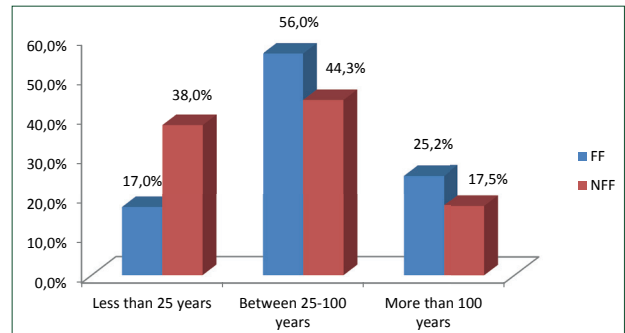


Figure 2. FB age versus NFB age

- The distribution of FBs by country differs from NFBs. In the UK, the country with the largest number of listed companies, only 10% of them are family firms, whilst in Italy, the share of family firms among listed businesses stands at 53%.

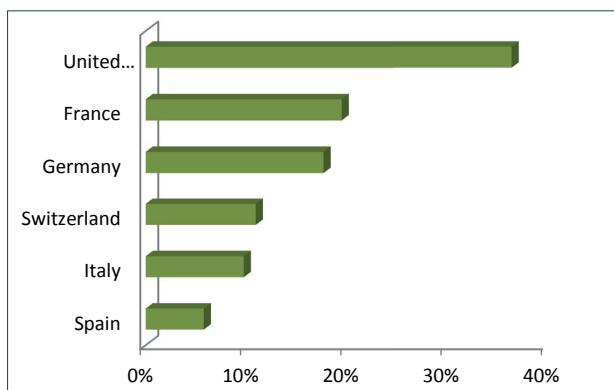


Figure 3. Geographical distribution of firms in the sample

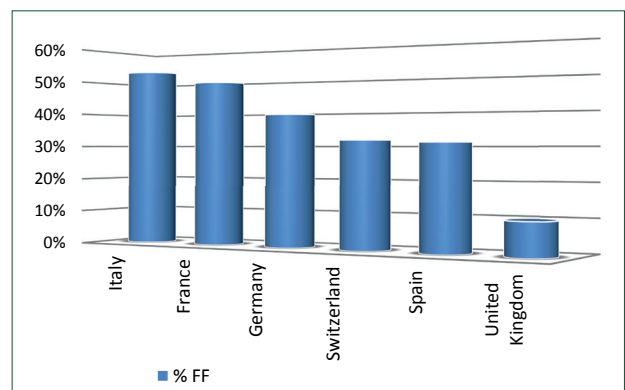


Figure 4. Geographical distribution of FBs

⁶ The study uses the same definition of family business as in our first report, i.e. a family business is one in which a family holds at least 20% of the company's shares and at least one family member is on the board of directors.

⁷ The process for selecting the sample for this 2nd Banca March-IE Report is described in Annex I.

- There are also significant differences in sector distribution between FBs and NFBs, as listed FBs are especially visible in sectors such as manufacturing and wholesale/retail.

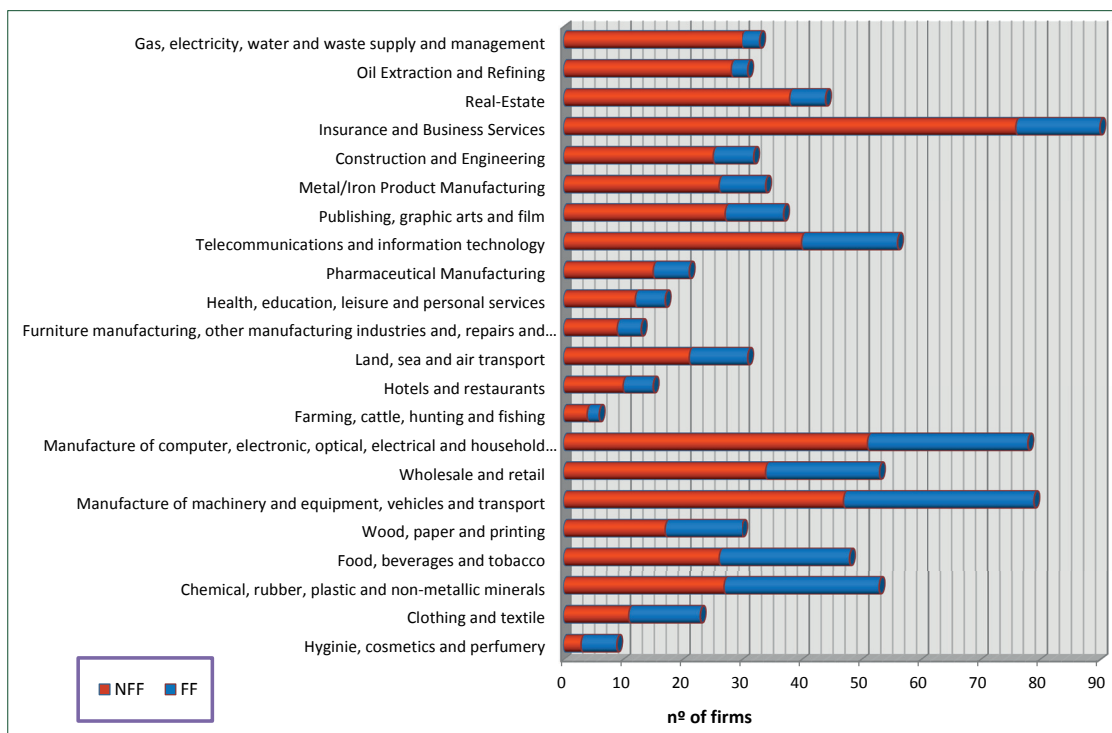


Figure 5. FB versus NFB sector distribution

- The sample analysis confirms that not all FBs are equal. There are differences between family businesses in, for instance, their size, as shown in Figure 6. Most FBs (45%) are in the "small" company group (market capitalisation less than €350 million), 42% are in the medium-sized enterprise group (between €350 million and €3.3 billion) and 13% are considered large companies (more than €3.3 billion).

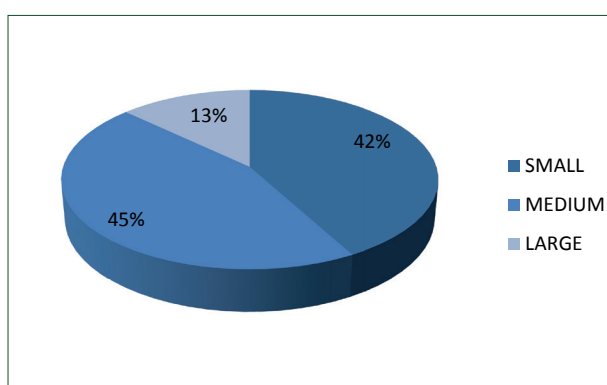


Figure 6. Distribution of FBs by size

- The sample’s descriptive data also reveals heterogeneity within the group of family firms in terms of the degree of family control as well as in the presence or absence of the firm’s founder (Figures 7 and 8).
 - The founder is present in 35% of family businesses while 65% have already completed at least one generational handover.
 - In terms of ownership, the largest group of FBs are those where the family owns between 40-60% of the company’s shares.

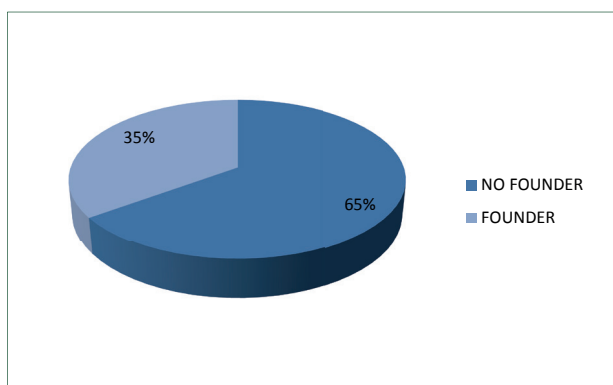


Figure 7. Distribution of FBs by generational stage

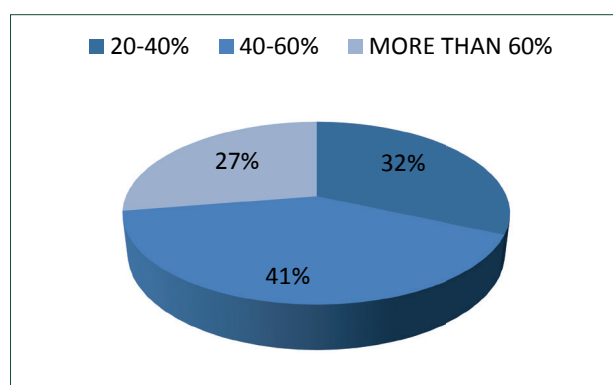


Figure 8. Distribution of FBs by family ownership percentage

IV. Are the higher returns generated by a family business a form of compensation for taking risks?

NO. The “family premium” still exists even after taking into account the various risks associated with investing in family businesses.

FBs provide greater ROA and stock return, and have lower insolvency, economic and market risk than NFBs. The only risk which is greater with FBs than NFBs is stock market liquidity, which is not however enough to explain the existence of the “family premium”.

Company	Country
Fuchs Petrolub	Germany
Faiveley Transport	France
Mulberry Group	United Kingdom
Puma	Germany
Anglo-Eastern Plantations	United Kingdom
Bijou Brigitte Accessories	Germany
Elringklinger	Germany
Compugroup Medical	Germany
Prim	Spain
Audi	Germany
Average Annual Return Top 10 FF	37,13%
Average Annual Return FF	11,61%
Average Annual Return NFF	8,70%
Average Annual Return per unit of risk Top 10 FF	1,03%
Average Annual Return per unit of risk FF	0,21%
Average Annual Return per unit of risk NFF	0,12%

Top 10 most profitable family businesses 2001-2010

FUCHS PETROLUB AG



Company founded in 1931 in Mannheim (Germany) by Rudolf Fuchs. Today, it is a global leader in the lubricants industry. The group has 3,795 employees. The Fuchs family currently owns about 30% of its shares.

FAIVELEY TRANSPORT



A French company founded in 1919 by Louis Faiveley. It is a leading manufacturer of equipment for the rail industry. The Faiveley family owns over 50% of the company's shares.

MULBERRY GROUP PLC



A British company founded in 1971 by Roger Saul, which makes bags and other accessories. Its main shareholders today are Christina Ong and her husband Ong Beng Seng, who took control of the firm in 2003.

ANALYSIS OF THE RISK-RETURN OF FAMILY BUSINESSES VERSUS NON-FAMILY BUSINESSES

As noted above, the findings of the 1st Banca March-IE Report seemed to suggest that FBs achieved higher stock returns despite having a lower market risk. This section provides a much more in-depth analysis of the

risk-return ratio of FBs in order to find out whether the higher stock returns that FBs generated over the last decade are a form of compensation for the greater risk that might be associated with investing in them.

Based on the standards of the leading financial and strategic theories, our report uses two indicators to measure a company's performance:

Performance	Definition	Indicator
Economic performance	The company's ability to generate profits with the assets it has available.	ROA (EBITDA/AT)
Stock return	Stock market performance adjusted by dividends and other payments to shareholders.	Compound Annual Return

It also draws a distinction between four types of risks that impact the performance of any type of business and puts forward a number of indicators to measure these risks:

Risk	Definition	Indicator
Economic Risk	This is related to the company's industrial risk, given the features of the business cycle of the industries in which it operates, and its management and its strategy to address such cycles. It reflects, to some extent, the volatility of profits (ROA volatility).	Standard Deviation of ROA
Insolvency Risk	The risk exposure of a company related to the probability of its bankruptcy. It includes measurements of financial structure along with other indicators that measure operational efficiency (such as EBITDA/Total Assets). The lower the value of this index, the greater the company's risk of insolvency.	Altman Z- Score ⁸
Market Risk	It includes the company's systematic or market risk, and its specific risk, and, to some extent, reflects the risk perceived by investors (price volatility). Systematic or market risk of the company.	Standard Deviation of Stock Return Beta ⁹
Liquidity Risk	Volume traded in euro on the market in the course of each year for each company. The lower the liquidity, the greater the risk for the minority investor who buys shares in listed companies.	Stock Market Liquidity

⁸ Annex II gives a detailed account of how this indicator is built.

⁹ Annex III explains the beta estimation process followed in the report using the CAPM.

Performance of family businesses compared to non-family businesses over the last decade.

As in the case of the 1st Report, the findings for the smaller and more uniform sample of 6 European countries analysed in this 2nd Banca March-IE Report reveal the greater performance (ROA) and stock returns generated by family firms compared to non-family firms over the decade reviewed.

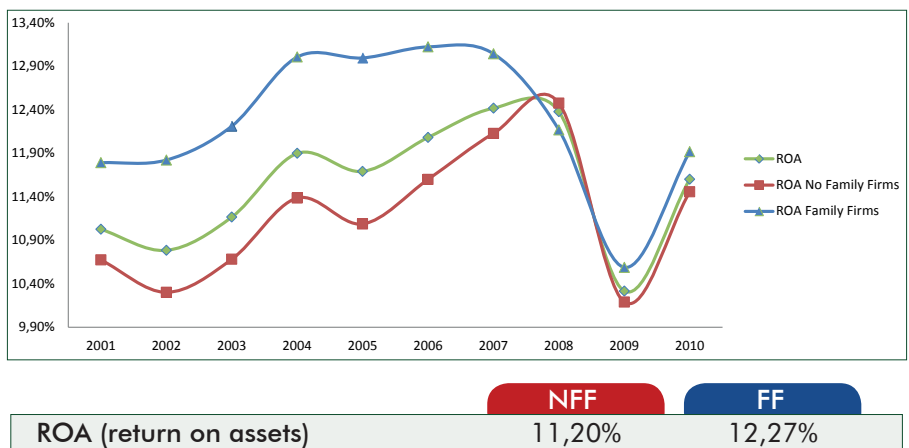


Figure 9. Changes in ROA 2001-2010

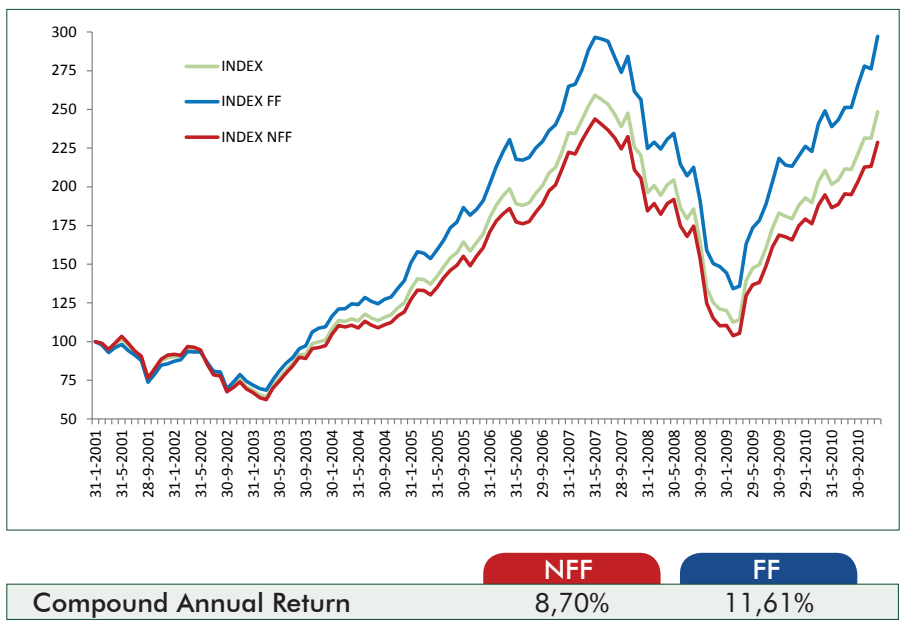


Figure 10. Aggregated stock index for the 6 countries in the sample for the FB, NFB and market portfolios

Family business versus non-family business risk over the decade.

Figures 11 to 14 show how family businesses clearly have a lower insolvency and economic risk (higher Altman Z-Score and lower ROA volatility). They also have a lower market risk in terms of both beta and volatility.

However, liquidity risk (Figure 15) is much higher in FBs as their average trading volume is much lower than NFBs (€1.633 billion per year per company on average, compared to €6.736 billion for NFBs).

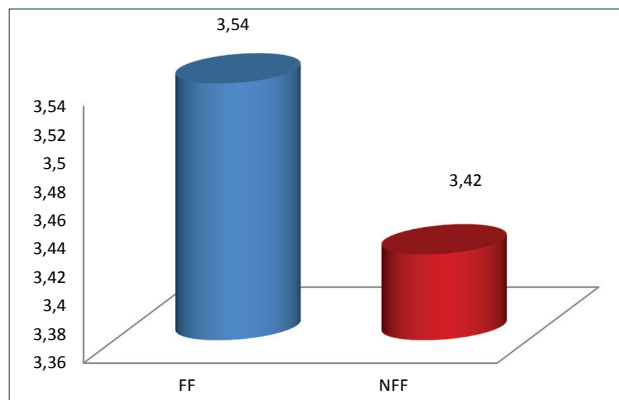


Figure 11. Solvency (Altman Z-Score)

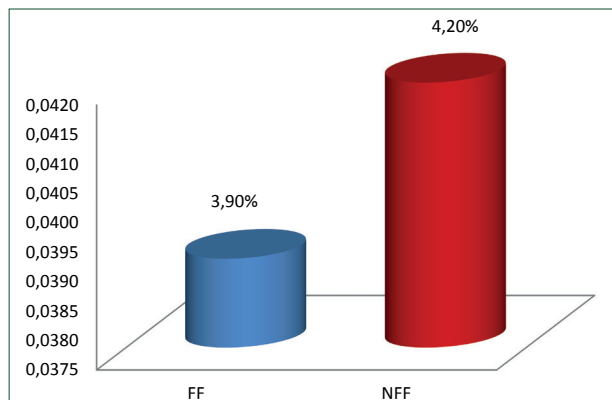


Figure 12. Economic risk (ROA volatility)

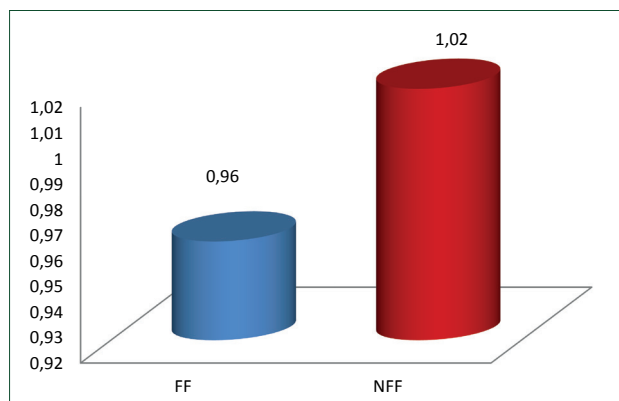


Figure 13. Beta

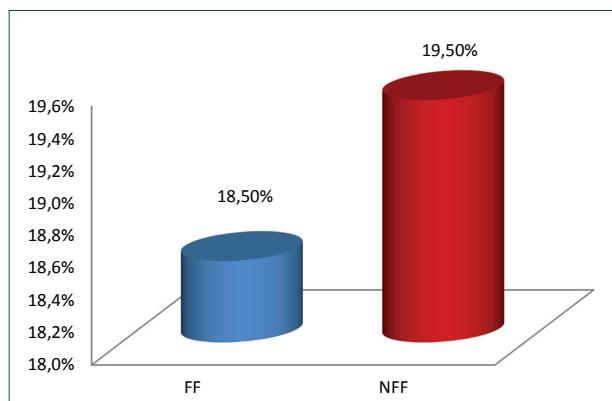


Figure 14. Stock market volatility

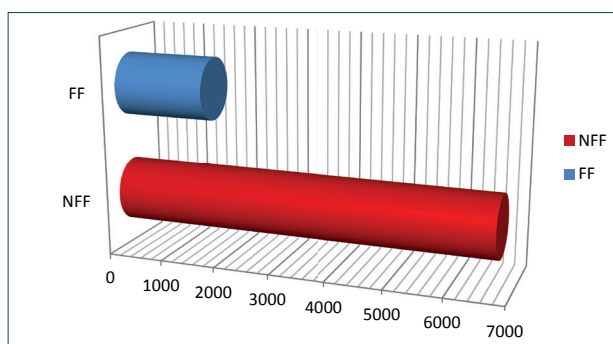


Figure 15. Liquidity (average annual volume traded – EUR million)

The risk-return ratio of family businesses compared to non-family businesses over the decade¹⁰.

Thus, as shown in Figure 16, a comparative analysis of stock market risk-return reveals that FBs generated higher returns for investors even with lower market risk.

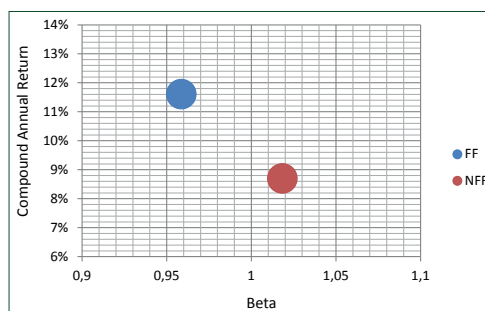


Figure 16. Risk-return of FBs versus NFBs

Given these findings, it is reasonable to ask whether the higher return of FBs versus NFBs is due to compensation for some type of risk not necessarily reflected in market risk (such as, for example, liquidity risk), and also whether, after discounting the effect of these risks, including liquidity, FBs continue to offer a higher ROA and stock return than NFBs.

To answer these questions we conducted a regression analysis in which the various types of risk discussed in this section were included as control variables (Table 1)¹¹.

Our regression analysis was categorical in favour of the existence of the “family premium”. The positive and statistically significant coefficient in the regression based on being a family business means that, even when controlling for all the above types of risk, family businesses earn greater ROA and stock return than non-family firms. The regression also indicates that this “family premium” remains even when considering the effect that variables, such as the country of origin of the company, the sector in which it operates, or its size, may have on performance¹².

	Stock Market Return	ROA
Family Business	0,035 **	0,020 **
Liquidity	-0,009 **	
Market Risk	0,119 **	
Solvency	0,007 **	0,012 **
Economic Risk	-0,188	-0,536 **
Adj. R-Sq.	0,288	0,269
F test	8,314 **	7,841 **
N	7.306	7.357

(**) Statistically significant at 1%

Table 1. Regression analysis. Effect of the family dimension on performance¹³

¹⁰ This risk is represented in Figure 16 by beta but the results do not change if stock market volatility is used.

¹¹ The regression also included other factors that affect performance, such as the country, and the sector in which the company operates, and its size, as control variables. Control variables to cover the possible impact of business cycles as well as borrowing and book-to-market were also included.

¹² The sign of the regression coefficients of the risk variables indicates the effect each one has on performance. In the cases of liquidity and insolvency risk, the variables included in the regression were “liquidity” and “solvency” and therefore a negative sign for these variables indicates an inverse relationship between them and performance, or in other words, a direct relationship between the risks posed by these variables and performance, while a positive sign would indicate an inverse relationship between the risk generated by one of these variables and performance.

¹³ The regression analysis used the panel data technique with fixed effects. Panel data methodology makes it possible to better capture effects not detectable in cross-sectional data and control for the heterogeneity of each company.

V. Is the success of family businesses uniform across all European countries?

NO. The “family premium” exists in all the countries studied, but in Germany and the UK, the risk-adjusted stock return differential of FBs versus NFBs is far superior to the rest.

Company	Country
Fuchs Petrolub	Germany
Puma	Germany
Bijou Brigitte Modische Accessories	Germany
Elringklinger	Germany
Compugroup Medical	Germany
Average Annual Return Top 5 FF Germany	33,36%
Average Annual Return Spread FF vs. NFF Germany	10,29%
Average Annual Return Spread FF vs. NFF Total Sample	2,91%

Top 5 most profitable German family businesses 2001-2010

PUMA



Company founded in 1948 in Germany, when Rudolf Dassler separated from his brother Adolf Dassler (the founder of Adidas). A manufacturer of sports equipment, the company went public in 1986. In 2007, the French company PPR, owned by the Pinault family, launched a friendly takeover to gain control of the company, and they are now its majority shareholders.

ELRINGKLINGER AG



German company founded in 1879 by Paul Lechler. It manufactures equipment for vehicles. The Lechler family currently owns 52% of the company's shares.

ANALYSIS OF THE RISK-RETURN OF FAMILY BUSINESSES COMPARED TO NON-FAMILY BUSINESSES BY COUNTRY

The country analysis seeks to confirm whether the findings on the risk-return of FBs versus NFBs in the previous section are maintained for each of the 6 countries in the sample. As noted above, this relationship may vary according to the geographical area concerned, given each country's different institutional and economic context.

Family versus non-family business performance in the various European countries.

An analysis of ROA by country shows that the higher ROA of FBs versus NFBs is a constant in almost all countries with the exception of Spain, where NFBs have a higher ROA, and Switzerland, where there are virtually no differences between the two types of firms. FBs in Germany and the UK stand out as achieving a return well above their NFB counterparts.

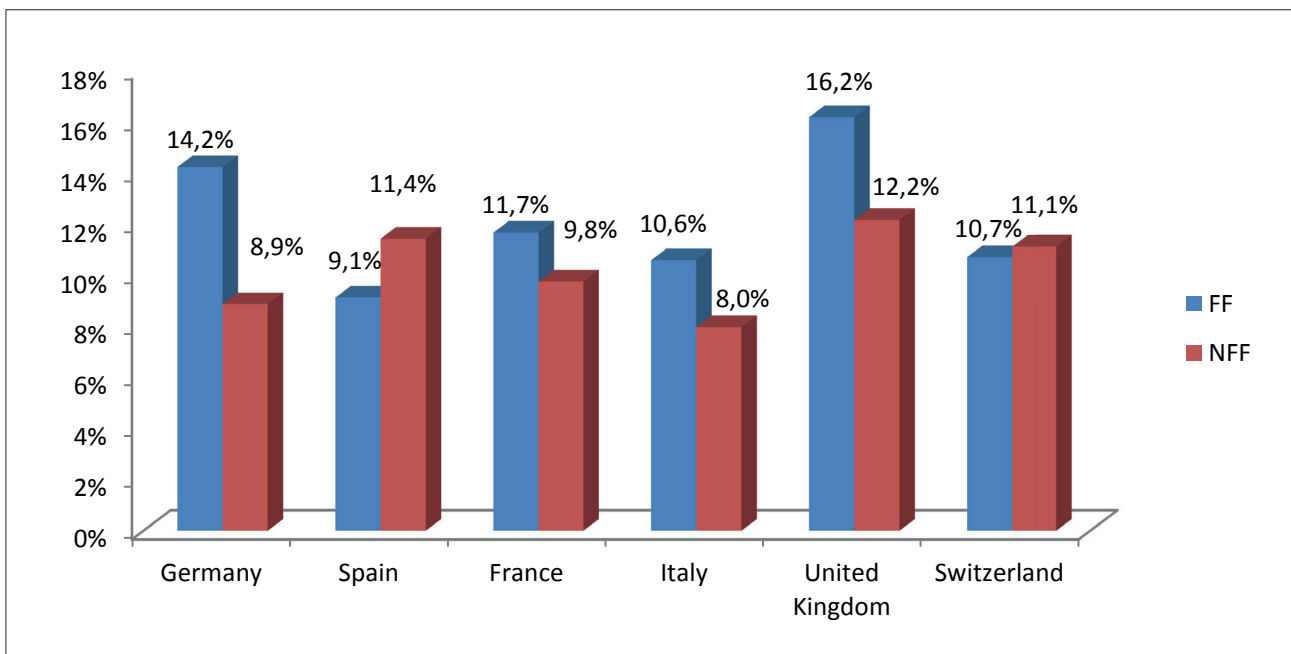


Figure 17. Average ROA 2001-2010 by country

Our analysis of the changes in stock return by countries (Figure 18) confirms that the findings in the previous section for the aggregate sample of listed companies in Europe are also maintained individually in each country, as FBs achieved higher stock returns than NFBs over the decade analysed in all countries in the sample.

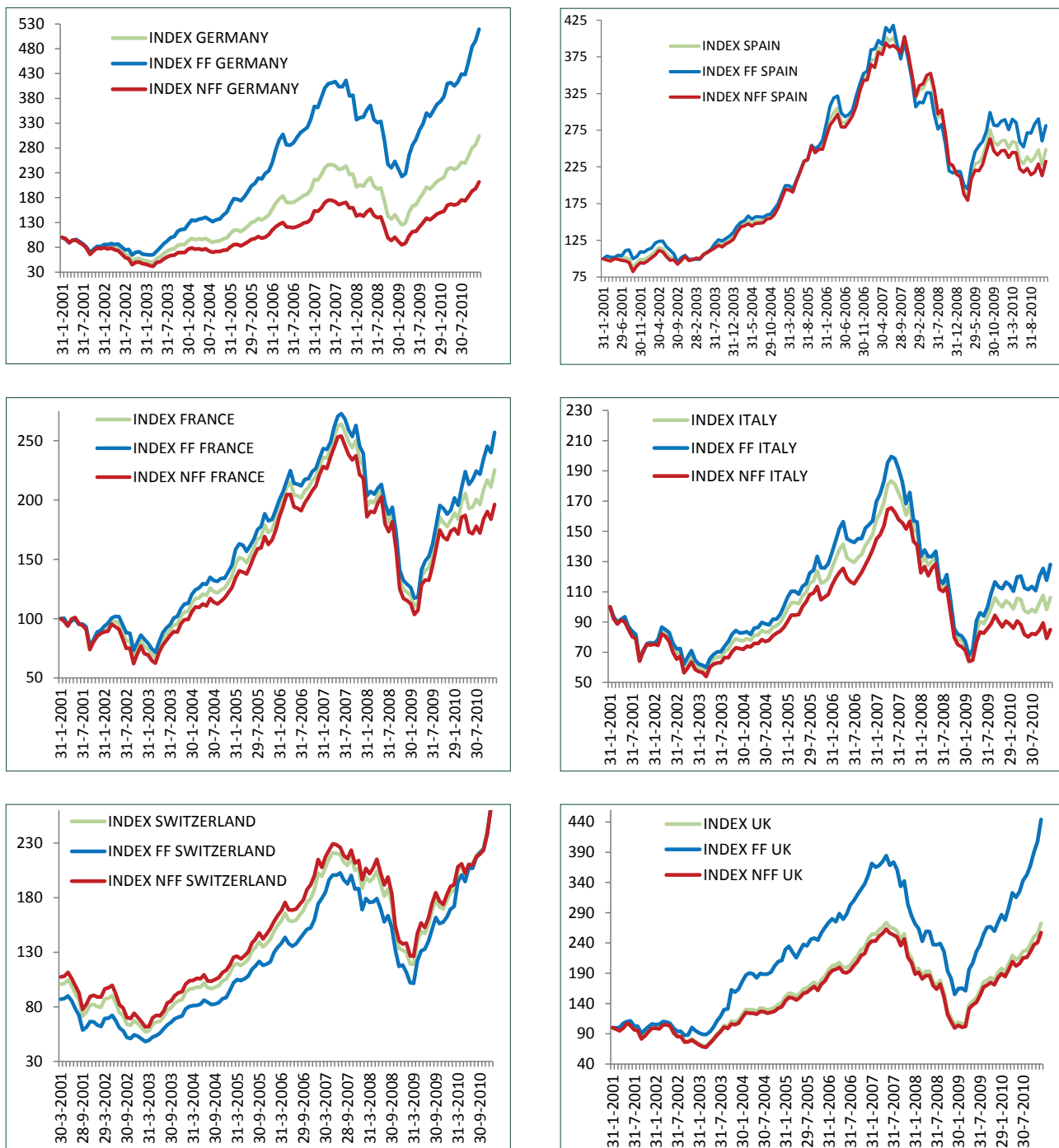


Figure 18 Stock return indexes by country.

Nevertheless, just as in the case of ROA, there are significant differences between countries. As shown in Figure 19, once more again in Germany and the UK family businesses' compound annual return for the period 2001-2010 was far superior to that of the whole sample, while in Switzerland there were virtually no differences between the two types of firms.

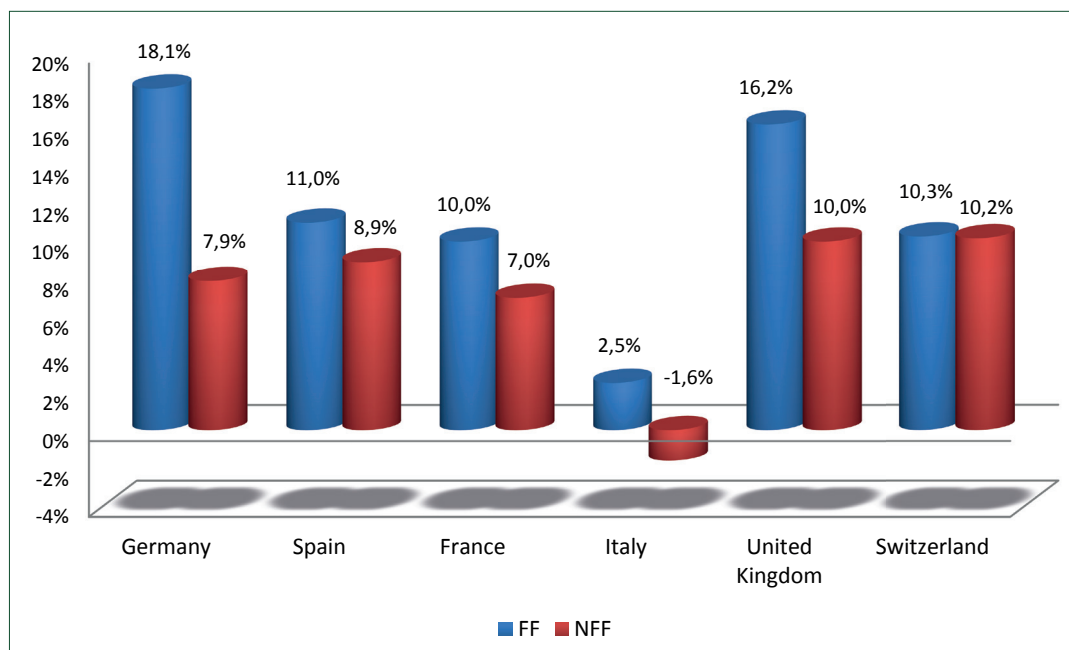


Figure 19. Compound annual return by country

Family versus non-family business risk in the various European countries.

Figure 21 shows that the lower economic risk of FBs for the whole sample does not hold when we examine these data by country. In fact, although in most countries this risk is very similar for both family and non-family firms, in the UK, FBs have a much higher economic risk than NFBs, while in Switzerland the reverse is true.

However, the greater FB solvency findings are maintained in all countries, as shown by the Altman Z-score (Figure 20).

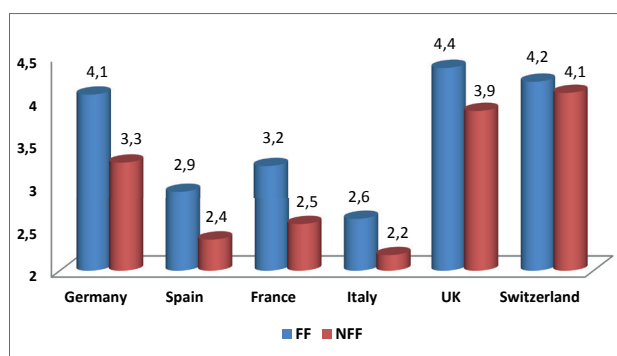


Figure 20. Solvency (Altman Z-Score)

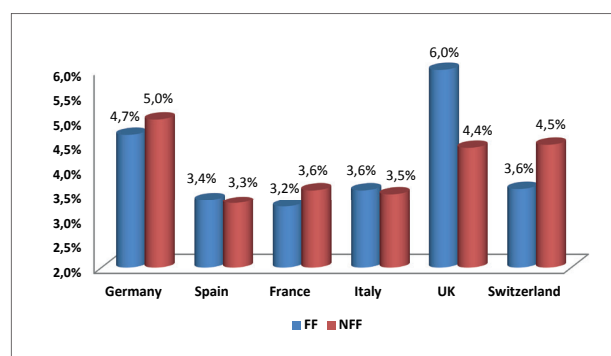


Figure 21. Economic risk (ROA volatility)

In terms of stock market risk (Figures 22 and 23), data shows that this is lower for FBs in Germany, the UK and France, but not in Spain, Italy and Switzerland. This holds true whether we take total risk (volatility) or only analyse systematic or market risk (beta).

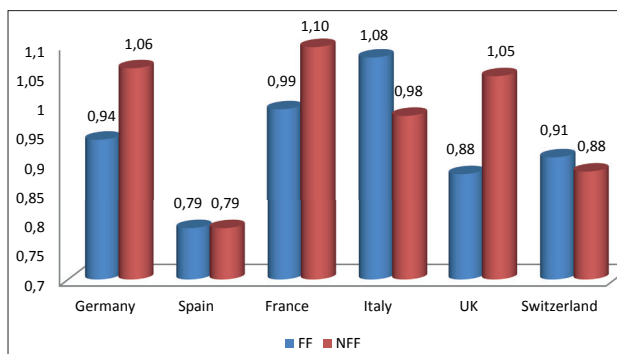


Figure 22. Beta

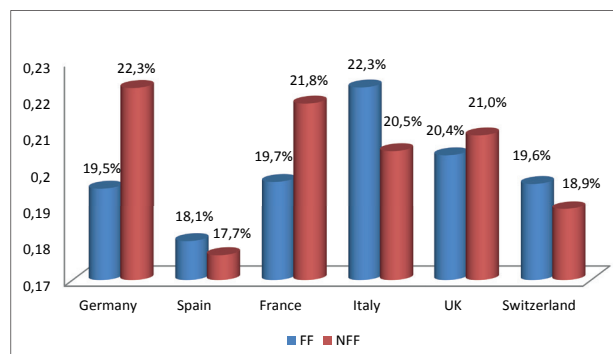


Figure 23. Stock market volatility

Finally, the higher liquidity risk associated with FBs is indeed a constant in all countries, as shown in Figure 24.

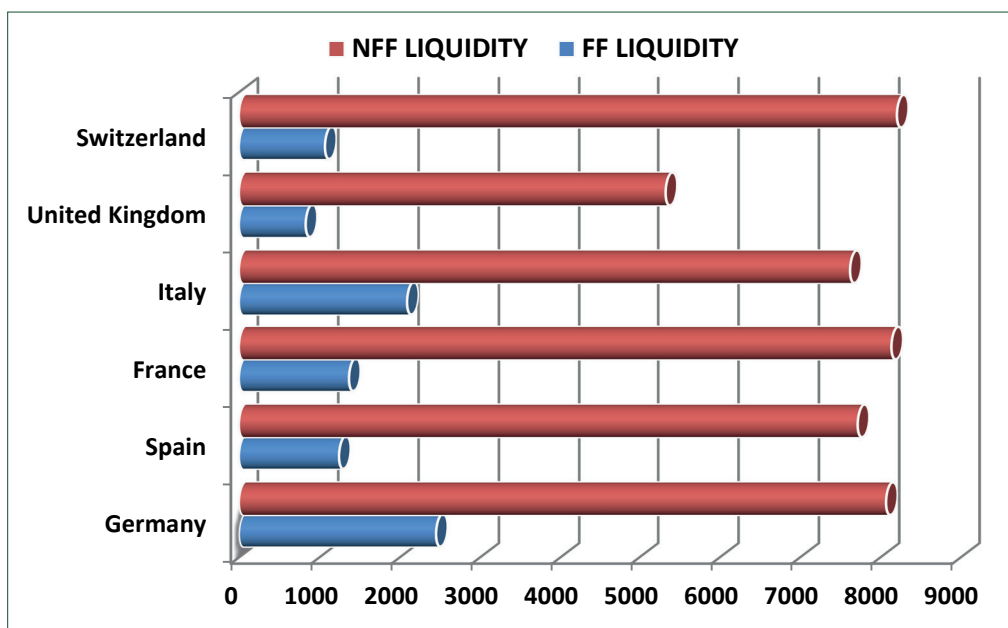


Figure 24. Liquidity (average annual volume traded in EUR million)

Risk-return analysis of family businesses versus non-family businesses in the various European countries.

Figure 25 shows that the greater return of FBs compared to NFBs does not seem to be explained by an increased risk associated with investing in these businesses. In fact, in countries where FBs had a higher difference in return compared to NFBs (Germany and the UK), FBs also had the lowest levels of risk compared to NFBs.

The German case is particularly striking because in spite of FBs obtaining a return that is on average 1,000 basis points (10 percentage points) above NFBs per year, their systematic risk, as measured by beta, is lower (0.94 for FBs, 1.06 for NFBs)¹⁴.

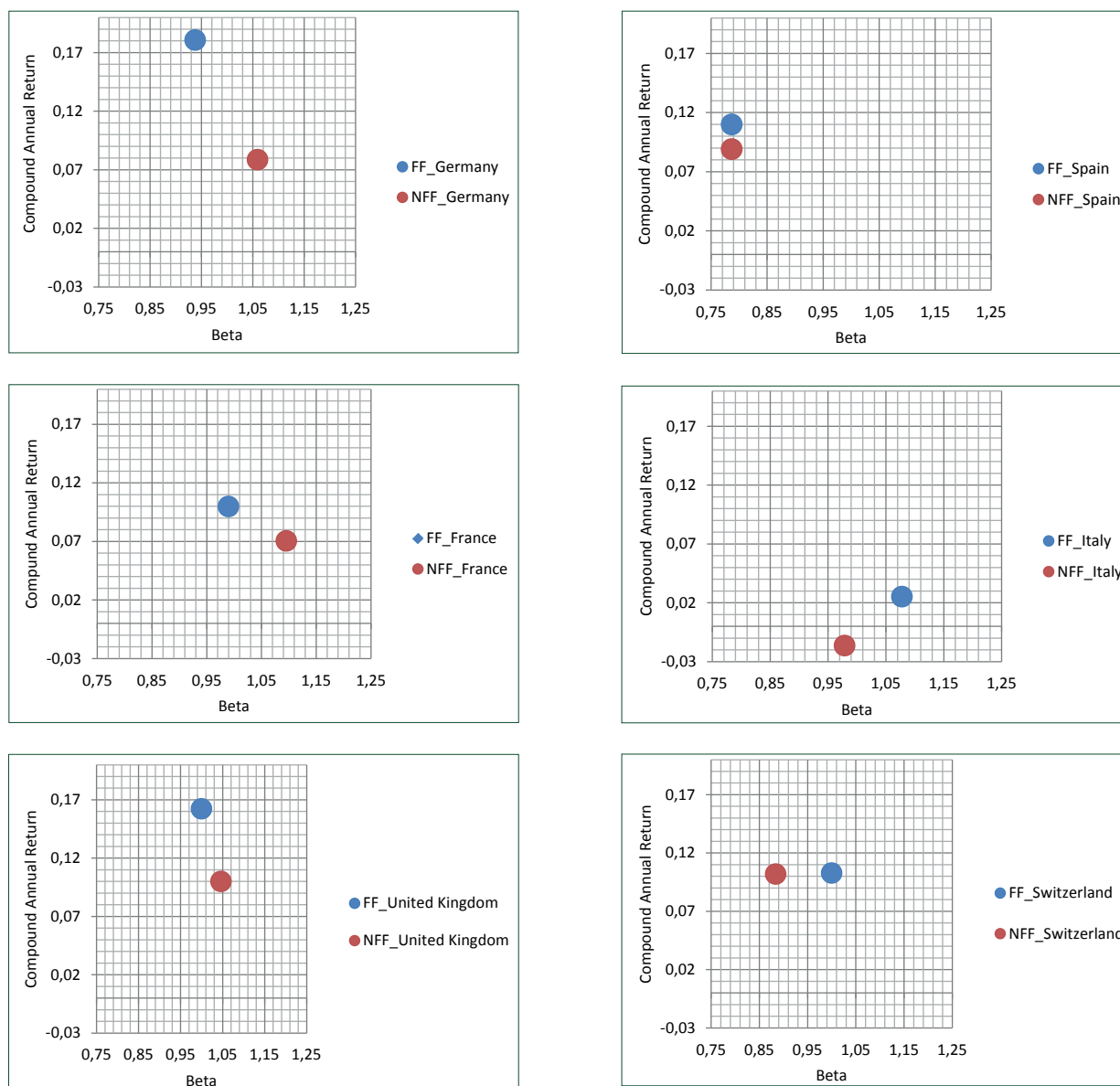


Figure 25. FB versus NFB risk-return by country

¹⁴We also conducted analysis using price volatility as a measure of risk and the results did not change in any of the countries analysed.

VI. Is the success of family businesses uniform across all sectors?

NO. The “family premium” does not exist in all the sectors analysed.

Nevertheless, in those sectors where FBs outperform NFBs, they achieve much higher differences in return. This is particularly evident in the textile industry, where FBs obtained over 1,100 basis points in average return per year more than NFBs. The market risk of FBs is also lower than NFBs in this sector.

Company	Country
Mulberry Group	United Kingdom
Gerry Weber International	Germany
Hermès International	France
Ted Baker	United Kingdom
Calida Holding	Switzerland
Average Annual Return Top 5 FF Textile Sector	18,44%
Average Annual Return Spread FF vs. NFF Textile Sector	11,37%
Average Annual Return Spread FF vs. NFF Total Sample	2,91%

Top 5 most profitable family businesses in the textile industry 2001-2010

HERMES



Company founded in 1837 by Thierry Hermès. The company specialises in the manufacture and distribution of luxury leather and silk goods, bags, accessories, perfumes, watches, and jewellery. It was first listed in 1993 on the Paris Stock Exchange to allow some family partners to leave the firm. Today, the Hermès family owns more than 60% of the company's shares.

TED BAKER PLC



Company founded in 1987 by Raymond Stuart Kelvin, and headquartered in London, UK. The company specialises in the design and manufacture of menswear, womenswear and accessories. Today, Raymond Stuart Kelvin is the company's CEO and holds more than one third of its shares.

CALIDA HOLDING AG



Swiss company founded in 1941 by Max Kellenberger and Hans Joachim Palmers. It makes, distributes and sells underwear for men, women and children. In 2000, the Palmer family left the company, and the Kellenberger family acquired the majority of the firm's shares.

GERRY WEBER INTER.



German company founded in 1973 by Gerhard Weber and Udo Hardiek, which makes and distributes women's clothing. The GERRY WEBER brand was created in 1986. At present, Gerhard Weber is the company's CEO. Gerhard and Udo together hold more than 45% of its shares.

ANALYSIS OF THE RISK-RETURN OF FAMILY BUSINESSES VERSUS NON-FAMILY BUSINESSES BY SECTORS

The influence of the sector in which a company operates on its risk-return ratio is a constant in all the studies carried out on this subject. Consequently, in this section, we look at the risk-return ratio of FBs compared to NFBs, based on their distribution by sector.

Sector distribution of family firms in terms of the risk-return associated with the sector

Thus, the figures below relate the different risk-return parameters with the greater or lesser presence of FBs in a sector. The blue and red bars respectively show the sectors where FBs have a greater or lesser presence compared to the sample average, while sectors with an average representation of FBs are marked with brown bars.

Figures 26 and 27 clearly show how FBs are predominantly established in sectors with a medium-high ROA (around 11-15%) and lower than average economic risk (at 4.2%)¹⁵.



Figure 26. Sector performance (ROA) - 2001-2010

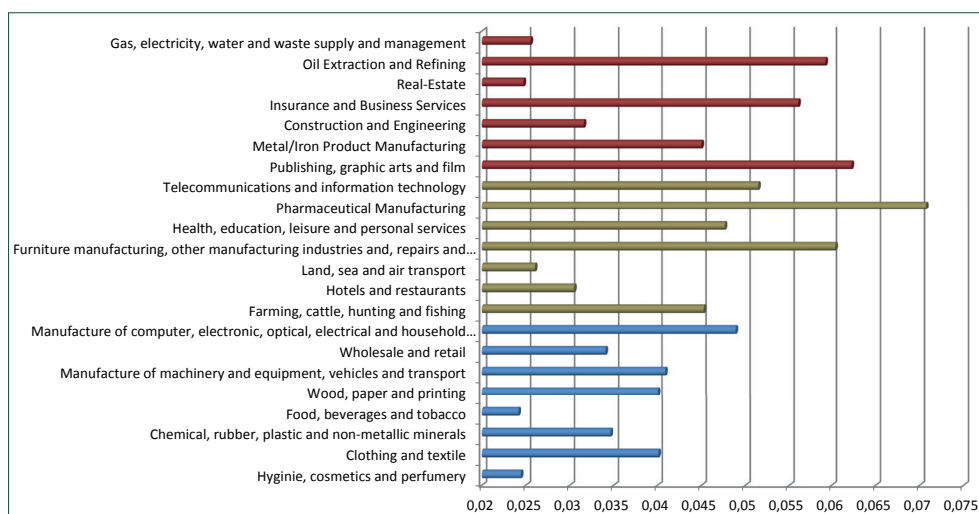


Figure 27. Sector economic risk (ROA volatility) - 2001-2010

¹⁵The only exception is the manufacture of computer, electronic and optical products, household appliances and electrical goods which was more volatile and where FBs predominate over NFBs.

An analysis of the risk-stock return ratio suggests a similar pattern. FBs tend to be more predominantly established in sectors with average stock returns, and lower than average risk, with some exceptions, such as the wood and paper industry, which hardly generated any shareholder returns over the decade, and the manufacture of computer, electronic and optical products, household appliances and electrical goods, where stock market risk was above average.

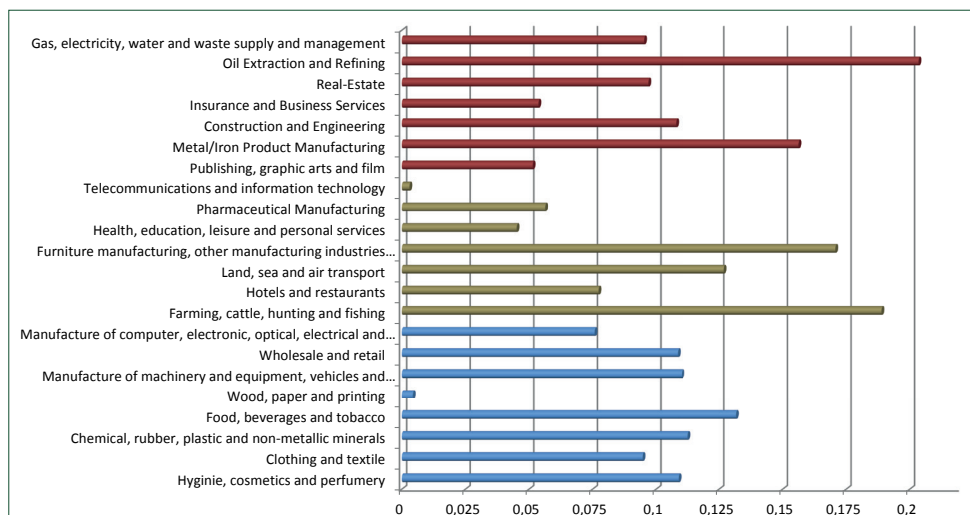


Figure 28: Sector compound annual return - 2001-2010

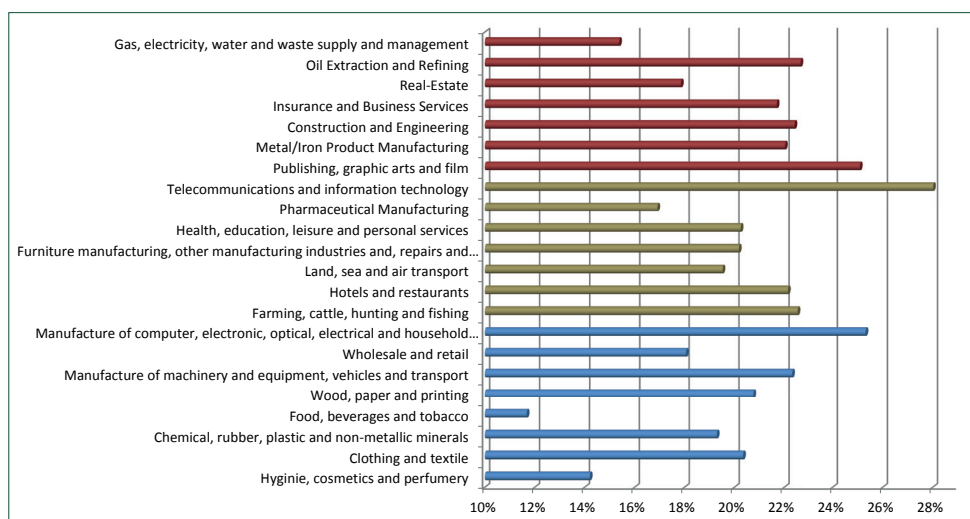


Figure 29: Sector stock market risk (volatility) - 2001-2010

Thus, our analysis indicates that FBs are predominantly established in sectors featuring medium-to-high ROA and stock returns, and low risk.

Because of this difference in the sector distribution of FBs compared to NFBs, below we analyse whether in those sectors with a greater proportion of FBs than NFBs, the former perform differently from the latter in terms of risk-return.

The performance of family versus non-family businesses in sectors with a greater presence of family businesses

Figure 30 shows that FBs do not generally earn a higher ROA than NFBs in the sectors in which they predominate since all the sectors are on the trend line, with the exception of the clothing and textiles sector where FBs achieve a much higher ROA (16% FB versus 9% NFB).

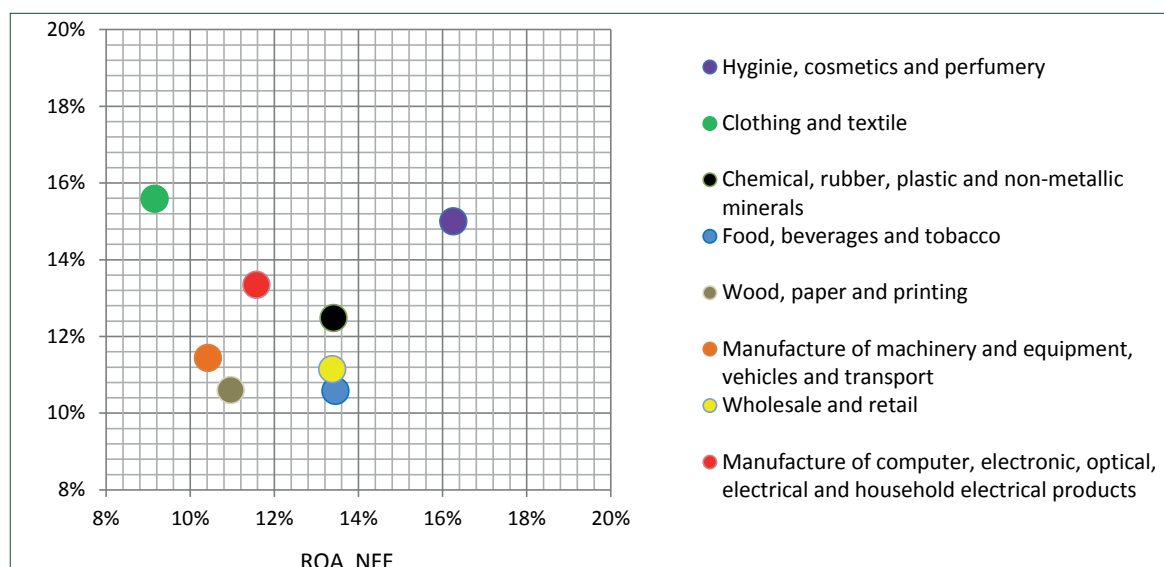


Figure 30. ROA of FBs and NFBs in sectors dominated by family firms

There are, however, differences between FBs and NFBs by sector in stock returns. FBs outperform NFBs in four of the eight sectors analysed:

- Clothing and textiles
- Manufacture of machinery and transport vehicles
- Manufacture of computer and electronic products, household appliances and electrical goods
- Wood, paper and printing

Significantly, in these sectors, the differences in return of FBs versus NFBs are generally much higher than those obtained by NFBs over FBs in the other sectors. Once again, the clothing and textile sector leads the way where FBs earned over 1,100 basis points of average return per year more than NFBs. Similarly, in computer and electronic products, household appliances and electrical goods, and in the machinery and transport vehicle manufacturing sector, FBs achieved a very sizeable difference in return at 500 and 300 basis points respectively¹⁶.

¹⁶The only sector where NFBs earn a significant difference in return is personal hygiene, perfumes and cosmetics, but this is a sector with very few companies in the sample (6 family and 3 non-family firms).

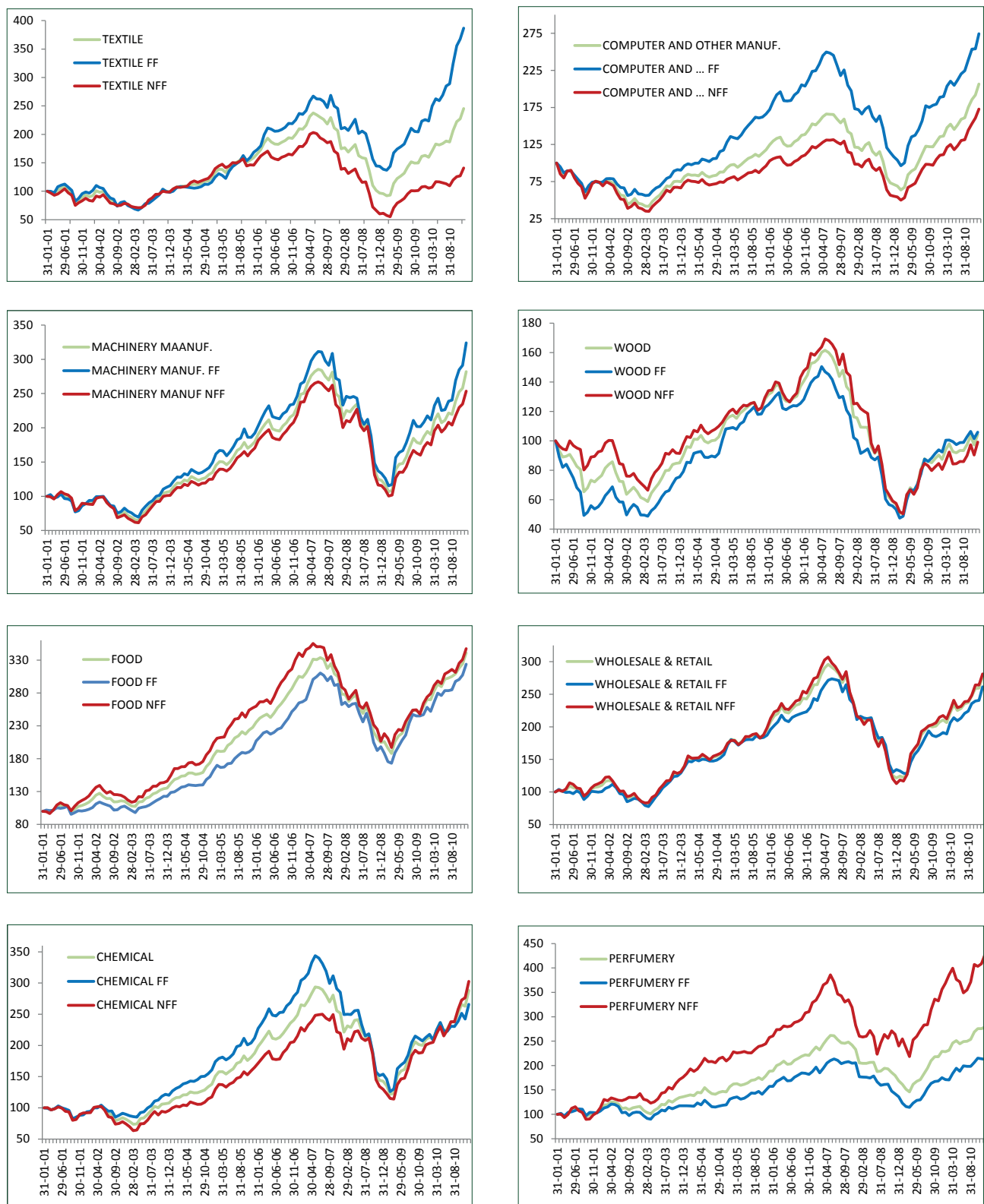


Figure 31: FB and NFB stock indexes in sectors dominated by family firms

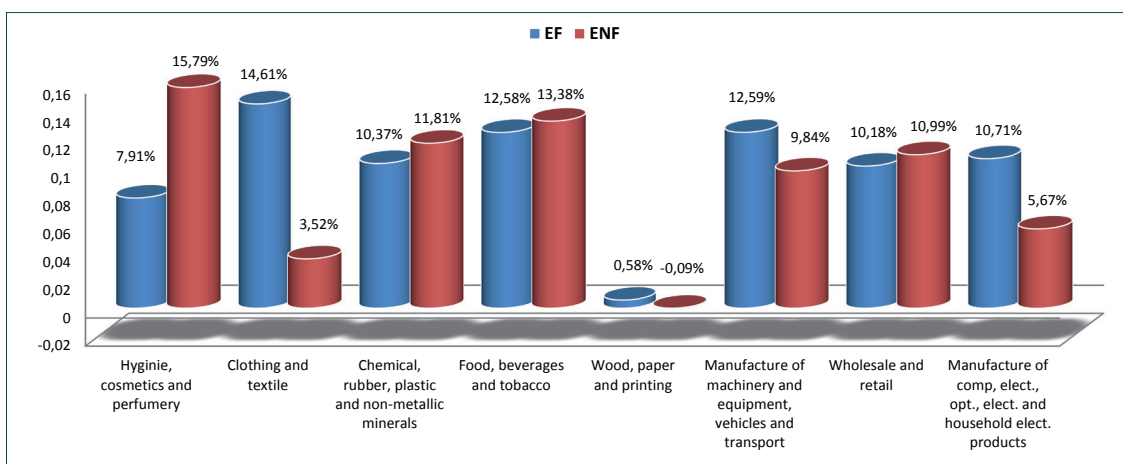


Figure 32. Compound annual return of FB and NFB indexes in sectors dominated by family firms

Family versus non-family business risk in sectors with a greater presence of family businesses.

The following figures show the level of FB and NFB solvency and economic risk in sectors with a greater presence of FBs.

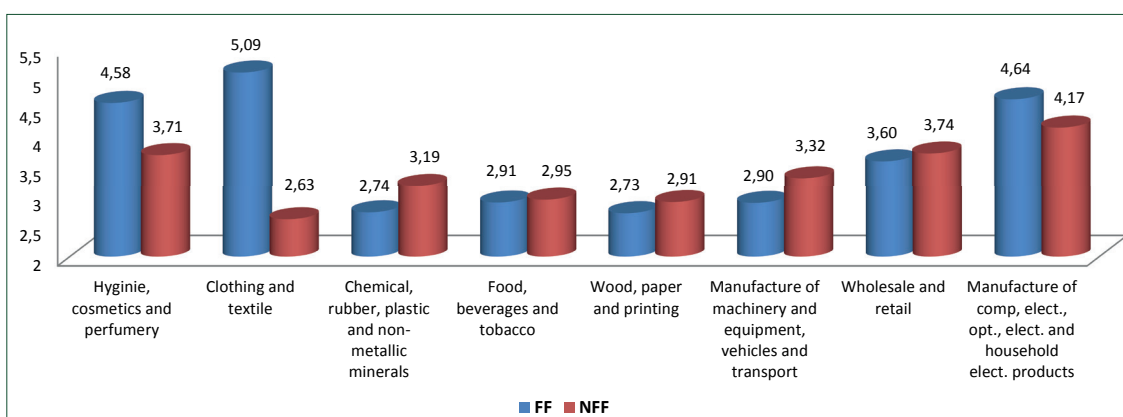


Figure 33. Solvency (Altman Z-Score)

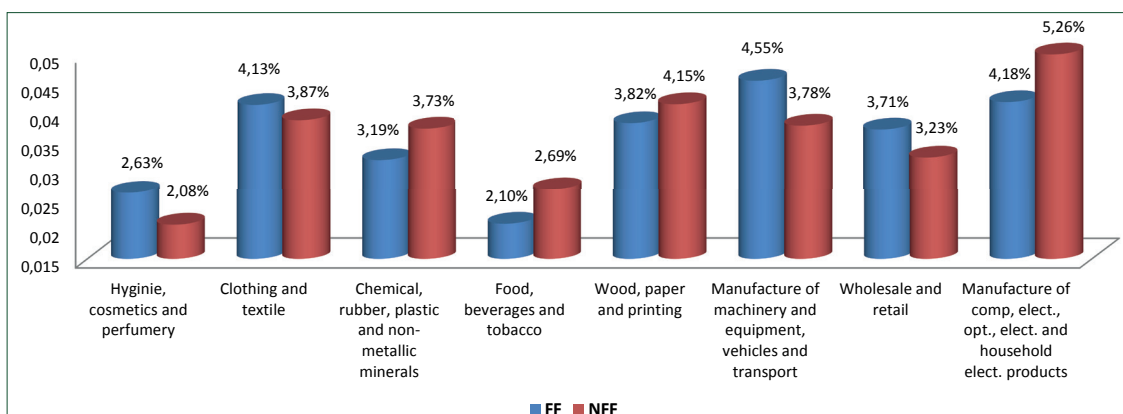


Figure 34. Economic risk (ROA volatility)

There is no consistent pattern of performance in the different sectors in terms of the level of solvency of FBs, compared to NFBs, or the level of economic risk. The differences between the two groups of companies with respect to both variables change sign and size depending on the sector. In general, they do not seem significant, with the exception of the greater solvency of FBs in the clothing and textiles, and personal hygiene, perfumes and cosmetics sectors. It seems instead that the two variables, and especially economic risk, have more to do with the sector in question rather than with whether the company is a family business or not.

The following figures show the differences in the stock market risk of FB and NFB indexes in sectors with a greater presence of FBs. In fact, risk levels seem to be distributed more according to the sector, rather than whether the company is a family undertaking or not, except in the manufacturing computer and electronic products, household appliances and electrical goods, and wholesale and retail sectors, where FB risk is much lower.

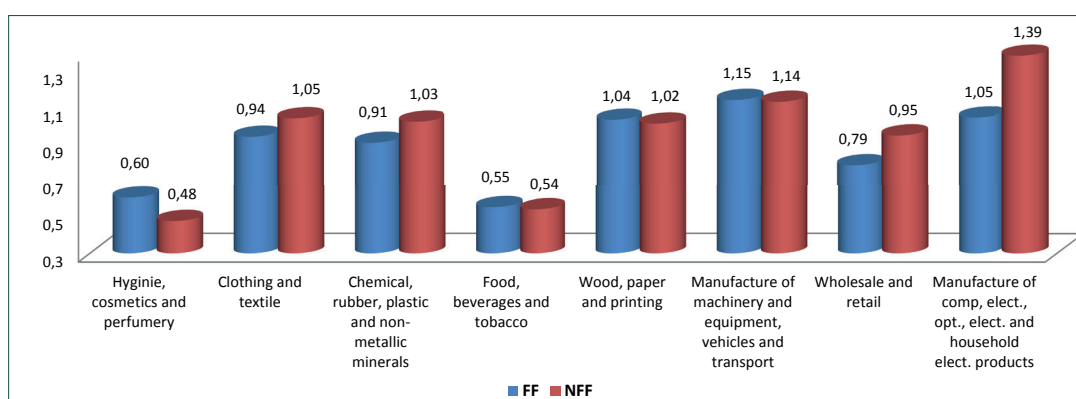


Figure 35. Beta

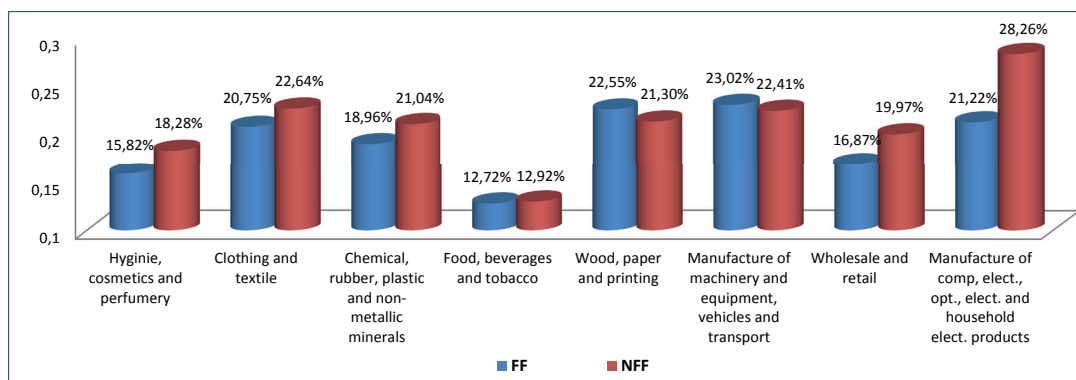


Figure 36. Stock market volatility

In terms of liquidity risk, we found that FBs have less market liquidity (and, therefore, higher risk) than NFBs in most sectors. However, our sector analysis shows two important exceptions. In the clothing and textile, and the machinery manufacturing sectors, family firms are more liquid than their non-family counterparts. At the opposite end of the scale, NFBs are much more liquid in the food sector than FBs.

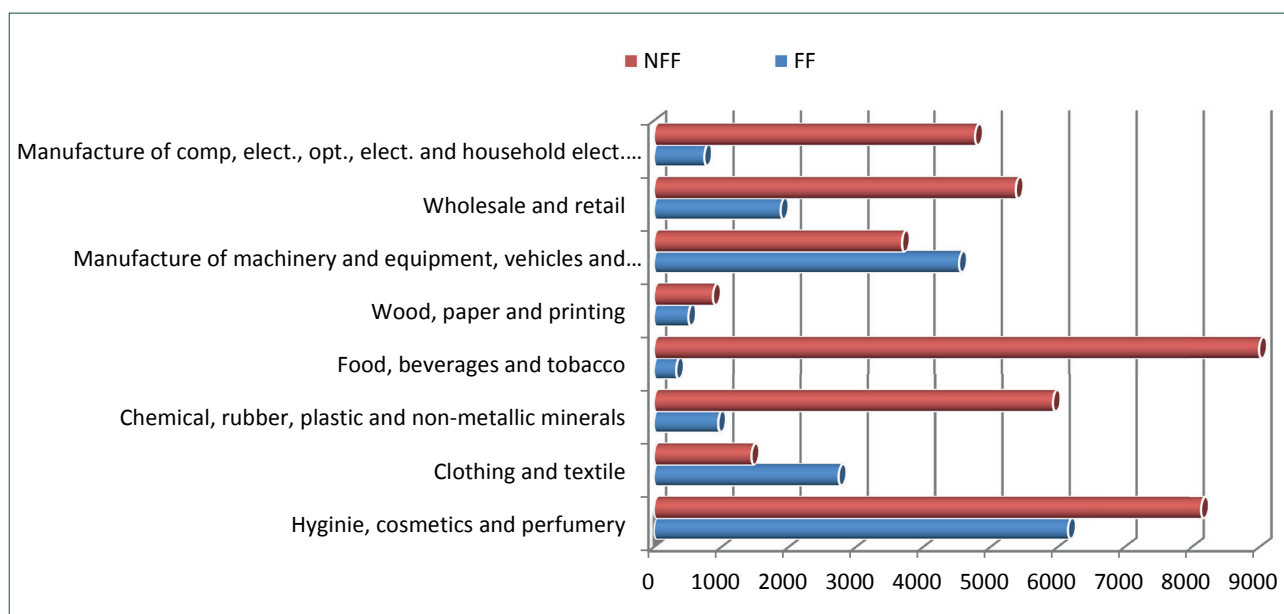


Figure 37. Liquidity (average annual volume traded in EUR million)

Risk-return analysis of family businesses compared to non-family businesses in sectors with a greater presence of family firms.

As shown in Figure 38, the risk-return ratio of FBs compared to NFBs varies greatly depending on the sector. In some of them, FBs achieve higher returns with lower risk (e.g. clothing and textiles, and manufacture of computer products), whereas in others, the risk-return of both types of firms is very similar, with the exception of personal hygiene, cosmetics and perfumes, where NFBs earn higher returns with lower risk. However, and as noted above, in sectors where FBs are more profitable, their difference in return compared with NFBs is very noticeable.

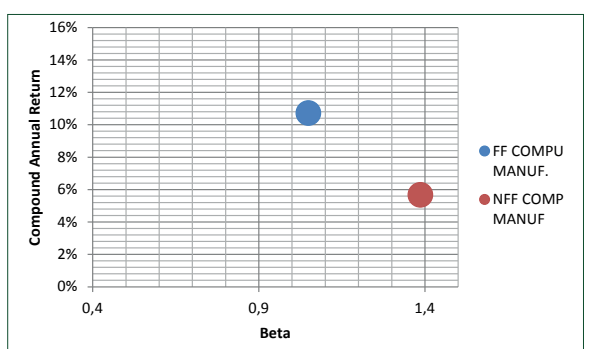
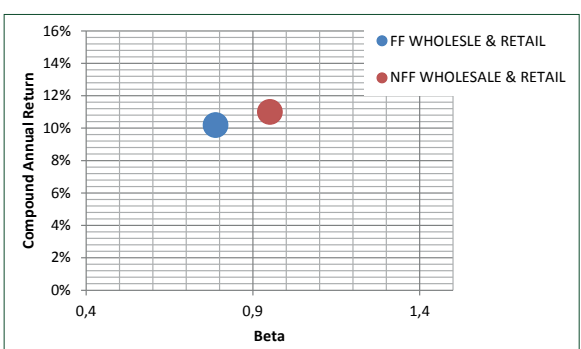
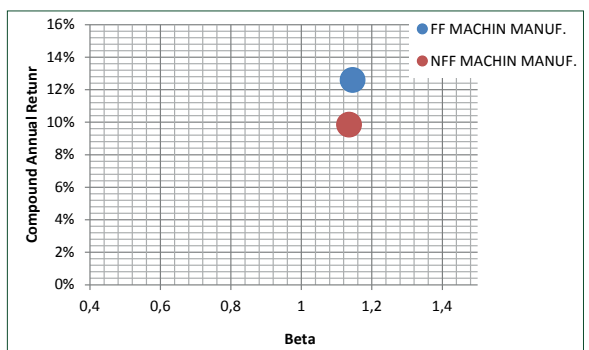
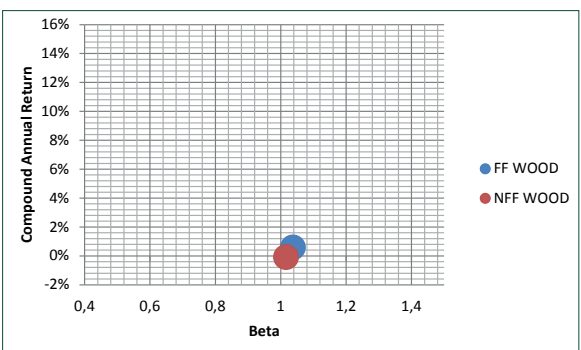
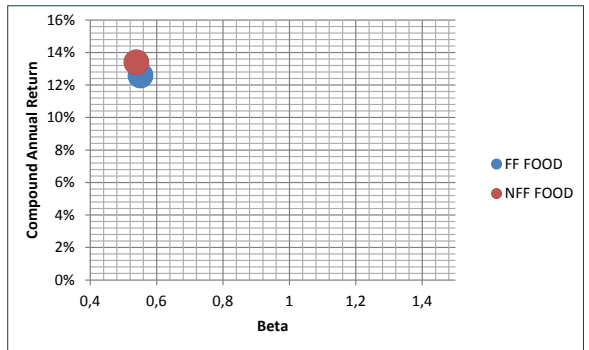
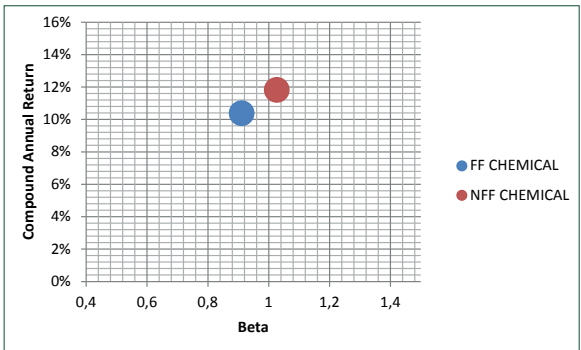
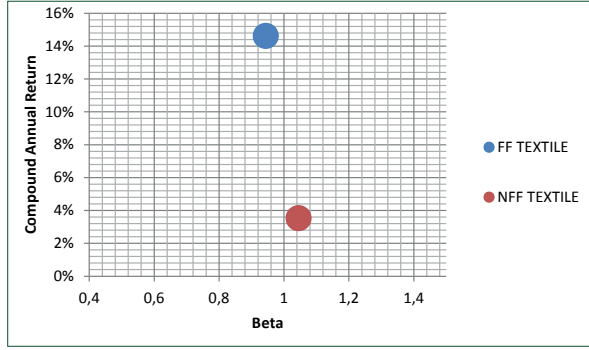
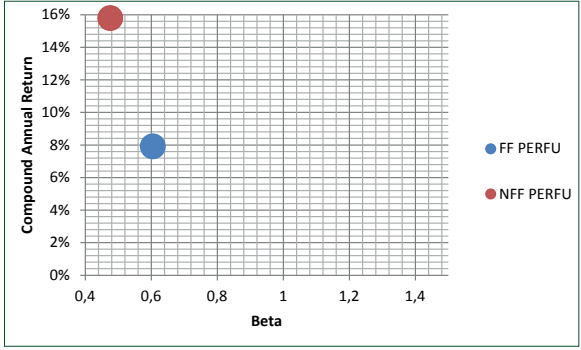


Figure 38. FB versus NFB risk-return in sectors dominated by family firms.

VII. Are there any differences in the risk-return of family firms by company size?

YES. The “family premium” exists irrespective of the size of the firm but smaller family businesses (market capitalisation less than €350 million) earned higher returns over the decade, in both listed companies as a whole, and in FBs.

Companies < €350 mill. Market Capitalization	Country
Mulberry Group	United Kingdom
Anglo-Eastern Plantations	United Kingdom
Prim S.A.	Spain
James Halstead	United Kingdom
Hugli Holding	Germany
Average Annual Return Top 5 Small FF	29,97%
Average Annual Return Spread Small FF vs. NFF	4,20%

Companies > €3300 mill. Market Capitalization	Country
Audi AG	Germany
Kuehne & Nagel International	Germany
Schindler	Germany
Hermes International	France
The Swatch Group LT	Switzerland
Average Annual Return Top 5 Large FF	19,77%
Average Annual Return Spread Large FF vs. NFF	2,30%

Top 5 most profitable family businesses by size

JAMES HALSTEAD PLC



Company founded in 1915 by James Halstead, and based in Manchester, UK. The company makes and distributes parquet, tiles, and other flooring materials.

The company went public in 1948, and in 2010, its market capitalisation stood at €255 million. The Halstead family holds over 50% of the company's stock.

THE SWATCH GROUP LTD



Swiss company founded in 1983 by Nicolas G. Hayek through the merger of two Swiss watchmaker groups: ASUAG (founded in 1931) and SSIH (founded in 1930). The company makes and markets high quality, advanced technology watches at affordable prices. The Hayek family owns more than 40% of its voting rights.

ANALYSIS OF THE RISK-RETURN OF FAMILY BUSINESSES VERSUS NON-FAMILY BUSINESSES BY SIZE

The market tends to award higher returns to small businesses, as argued by Fama and French's three-factor model that expands on the CAPM (Capital Asset Pricing Model), and in which one factor reflects the risk exposure of firms by size as measured by market capitalisation, a factor which means investors require higher returns.

Given that in our description of the sample we saw that FBs were on average smaller than NFBs, we need to go further in our analysis of this factor in order to identify whether the patterns observed in the market for small as opposed to large businesses explain the risk-return differences we found between FBs and NFBs. In other words, we need to answer the question: is the "family premium" maintained when we separate FBs and NFBs by size?

Examination of the distribution of the firms in the sample by market capitalisation shows that it is highly skewed. More than half of the sample (60%) is in the market capitalisation band ranging from €7 million to €1 billion, while the remaining companies (40%) lie between €1 billion and €154 billion in capitalisation.

Stock Market	Capitalization (€ mill.)
0	7
10	72
20	138
30	213
40	353
50	533
60	929
70	1.636
80	3.322
90	9.952
100	154.973

Due to this skewing we divided the sample into three groups by size:

- "Very small" businesses: they make up the group of 40% of companies with smaller capitalisation. These companies would be below €353 million in market capitalisation.
- Medium-sized companies: companies with market capitalisation ranging from €353 million to €3.32 billion which covers the next 40% of companies.
- Large companies: between €3.32 billion and €154.97 billion in market capitalisation (20% of the sample of firms).

Table 2. Sample distribution by percentiles based on market capitalisation

The FB and NFB distribution for these groups is shown in Figure 39, which indicates that the percentage of FBs compared to NFBs decreases as size increases.

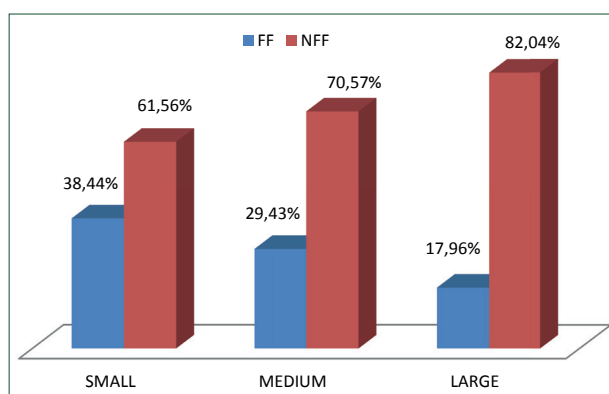


Figure 39. FB and NFB distribution by market capitalisation

Family business performance based on size as measured by market capitalisation.

Our analysis of the ROA generated by the companies in the sample, differentiated by size, shows that smaller companies provided a lower ROA. Interestingly, while the ROA of the FBs in this group is much higher than for NFBs (240 basis points higher averaged over a year), this is not so in the other groups of firms by size (medium and large), where ROA differences between FBs and NFBs are minimal.

In terms of stock returns (Figures 41 and 42), the results by size show that while smaller size means higher returns in the case of FBs, this is not so for NFBs. Hence, the difference in return between very small FBs and NFBs is extremely large, at over 400 basis points averaged over a year in favour of FBs. Moreover, our analysis also found that better returns for FBs are systematically maintained when the sample firms are segmented by market capitalisation.

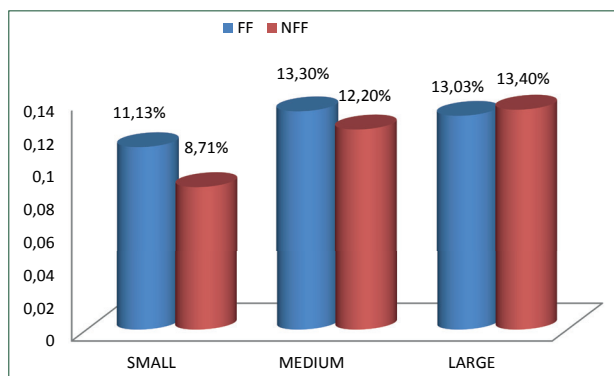


Figure 40. ROA of FBs and NFBs by size

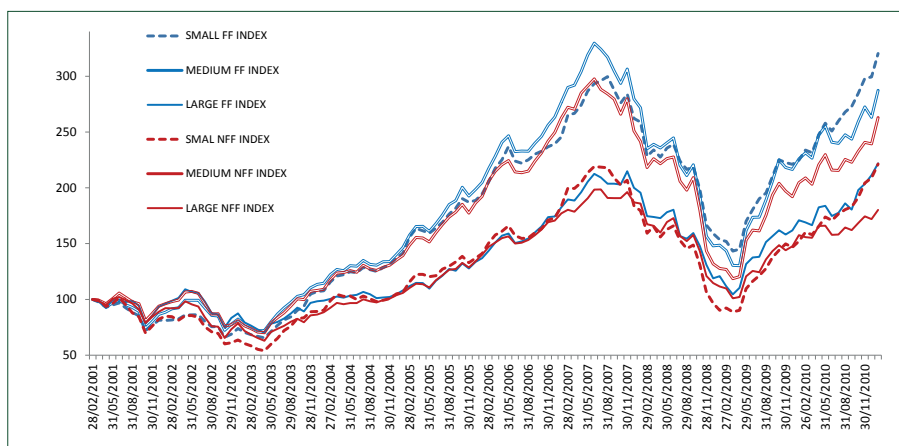


Figure 41. Stock indexes of FBs and NFBs by size

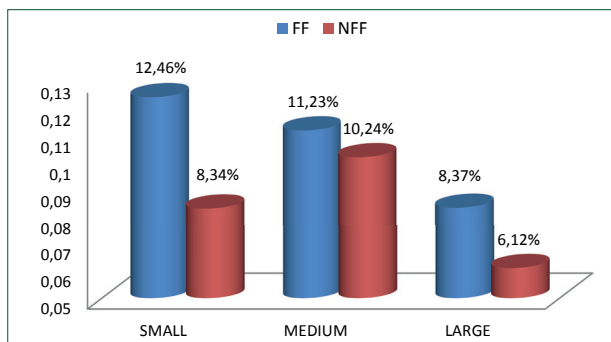


Figure 42. Compound annual return of FB and NFB indexes by market capitalisation size

Thus, in general, FBs outperform NFBs in both ROA and stock returns when segmented by size, but it is clearly the group of smaller family companies which obtained the highest difference in return compared to NFBs.

Family business risk based on size as measured by market capitalisation.

In terms of economic risk (ROA volatility), smaller firms have the highest risk whether they are family firms or not. Nevertheless, this is not the case for stock market risk, since the companies with greater stock market risk are medium-sized ones in both family and non-family business groups.

Moreover, while the economic risk of FBs is always less than for NFBs, this is not the case in all size segments for systematic and total stock market risk as the largest FBs have greater stock market risk than NFBs.

It is striking that smaller FBs have a much lower market risk (in terms of volatility and beta) than their non-family counterparts, even though they are the most profitable companies.

In terms of solvency, FBs are more solvent than NFBs, in the case of medium-sized and large firms, but not in the case of very small businesses.

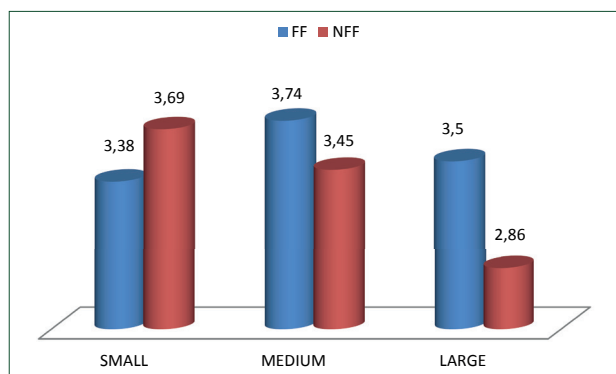


Figure 43: Solvency (Altman Z-Score)

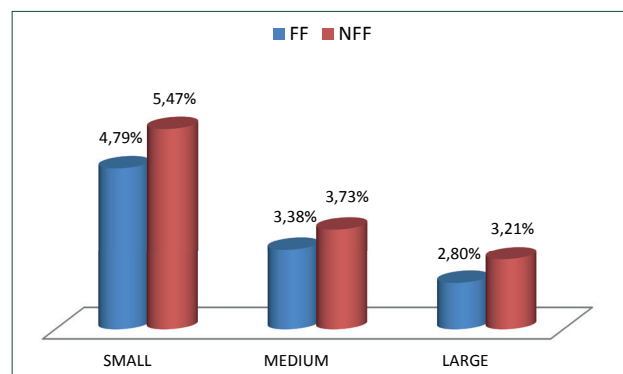


Figure 44: Economic risk (ROA volatility)

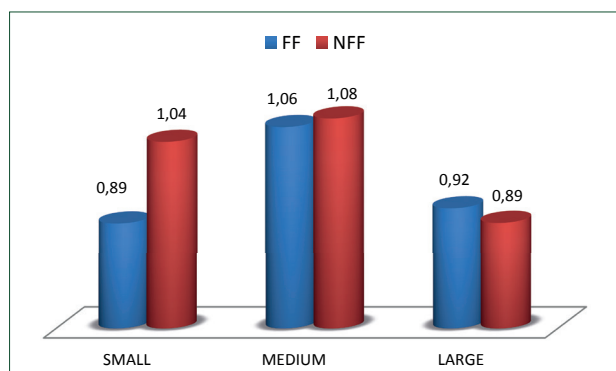


Figure 45: Beta

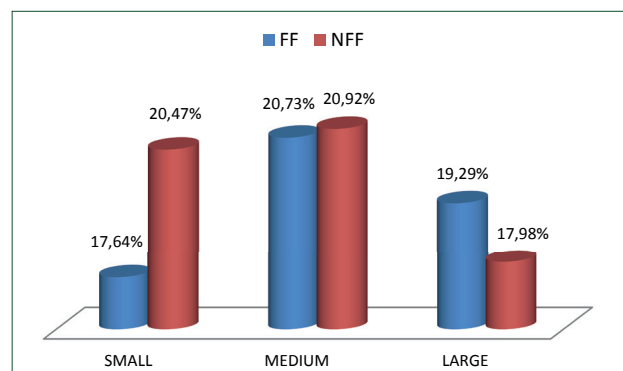


Figure 46: Stock volatility

Risk-return analysis of family businesses based on size as measured by market capitalisation.

Hence, the conclusion of our stock market risk-return analysis by segment size is that in the case of very small and medium-sized enterprises (80% of the companies in our sample), FBs have a lower risk despite offering greater returns than NFBs. In the large company segment (20% of the sample), FBs also offer higher returns, but, in this case, they are associated with greater market risk.

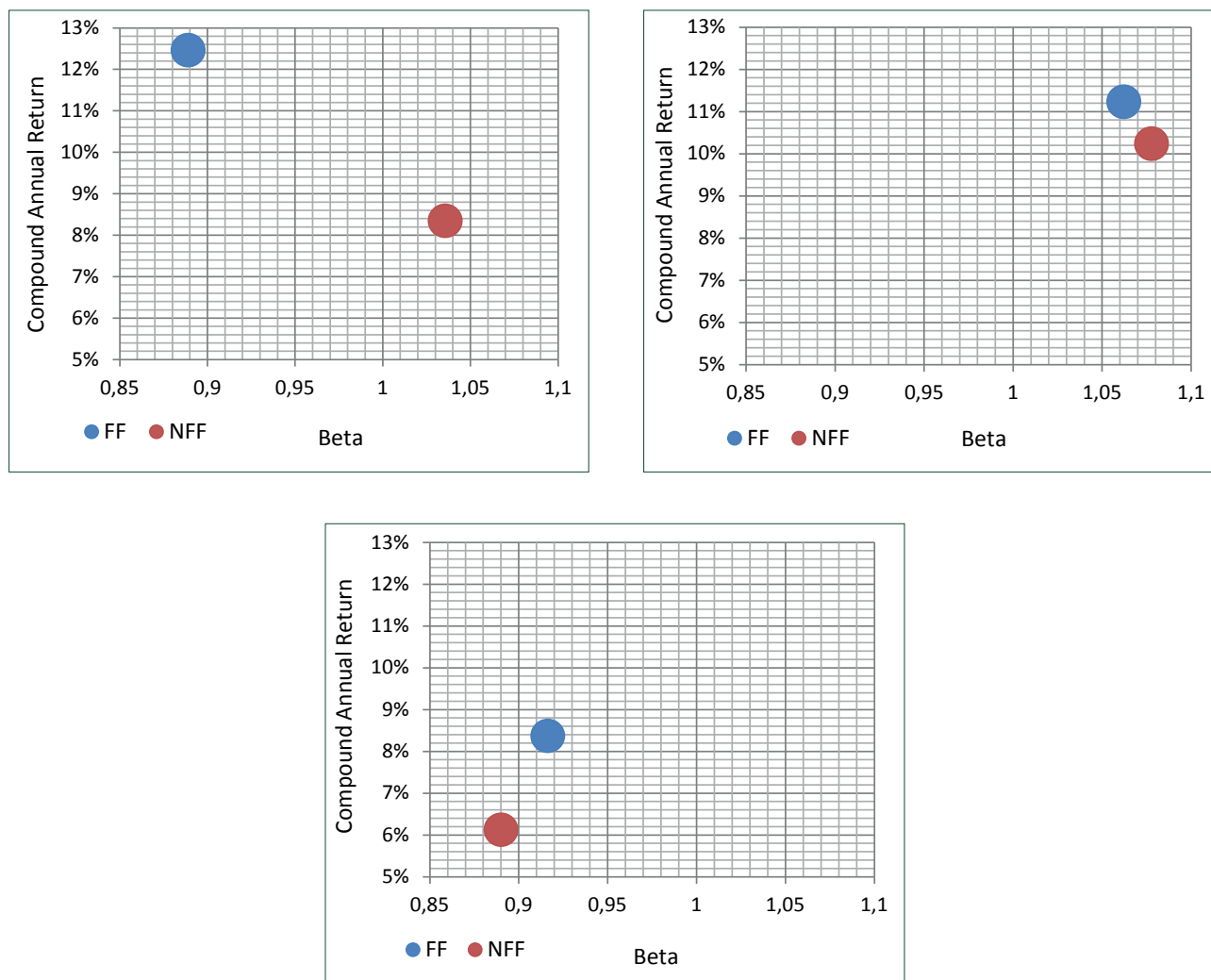


Figure 47- Risk-return of FBs versus NFBs by size (very small, medium and large)

VIII. Is there an optimal balance in FBs between family and market holdings?

YES. Family ownership has a positive influence on stock returns although this relationship is non-linear.

The "family premium" becomes greater as family ownership increases up to a point, beyond which the benefits of increased family control start to dwindle. This "optimal family control" point is around 40%.

Family-owned companies 20%-40%	Country
Fuchs Petrolub AG	Germany
Puma SE	Germany
Prim S.A.	Spain
Average Annual Return Top 3	34,67%
Average Annual Return Spread FF 20-40% vs. NFF	2,89%

Family-owned companies 40%-60%	Country
Mulberry Group	United Kingdom
Anglo-Eastern Plantations	United Kingdom
Bijou Brigitte Modische Accessoires	Germany
Average Annual Return Top 3	32,93%
Average Annual Return Spread FF 40-60% vs. NFF	3,71%

Family-owned companies >60%	Country
Faiveley Transport	France
Einhell Germany AG	Germany
Schindler	Germany
Average Annual Return Top 3	26,90%
Average Annual Return Spread FF >60% vs. NNF	1,37%

Top 3 most profitable family businesses by family ownership

SCHINDLER



Company founded in 1874 by Robert Schindler and Eduard Viliger in Switzerland. Schindler is one of the largest manufacturers of escalators and lifts worldwide. In 1901, Robert Schindler sold the company to his brother Alfred Schindler. Currently, the Schindler and Bonnard families own more than 70% of the company's voting rights.

BIJOU BRIGITTE MODISCHE ACCESSORIES



Company founded in 1963 by Friedrich-Wilhelm Werner, and based in Hamburg, Germany. The company manufactures, imports and sells costume jewellery, gold and silver, jewellery and fashion accessories.

Friedrich-Wilhelm Werner owns about 50% of the company.

PRIM



Company founded in 1870 by Pedro Prim Fernández. PRIM is a Spanish company that designs, manufactures and markets sophisticated health equipment and solutions. The Prim family owns about 30% of its shares.

RISK-RETURN OF FAMILY BUSINESSES BASED ON THE OWNERSHIP PERCENTAGE HELD BY THE FAMILY.

Family control of the ownership of a company is what sets FBs apart from NFBs, yet there is no consensus as to whether there is an “optimal” percentage which maximises the “family premium” effect on performance. As noted above, existing studies suggest that family ownership is not linearly related to a firm’s performance¹⁷. These studies show that the relationship is positive for low levels of family ownership and negative at higher levels. The rationale behind this non-linearity is that at high levels of family ownership, the owner family’s ability to expropriate minority shareholders is greater.

In order to make it easier to interpret the results, we divided FBs into three groups by ownership: family firms where the family owns between 20-40% of the shares, firms where the family owns between 40-60% and firms in which the family holds more than 60%. As indicated in our description of the sample, the largest group of FBs is made up of those in which the family owns 40-60% of the firm (41% of the sample compared to 32% in which the family owns 20-40% and 27% in which it holds more than 60%).

Family business performance by percentage of family ownership.

Figures 48 and 49 show that irrespective of the percentage of shares held by the family, both the ROA and stock return of FBs are greater than for NFBs. However, those FBs in which the family holds between 40-60% of the shares achieve a greater ROA and stock return than the other FBs, and the difference between the three groups of FBs is more pronounced in the case of stock returns.

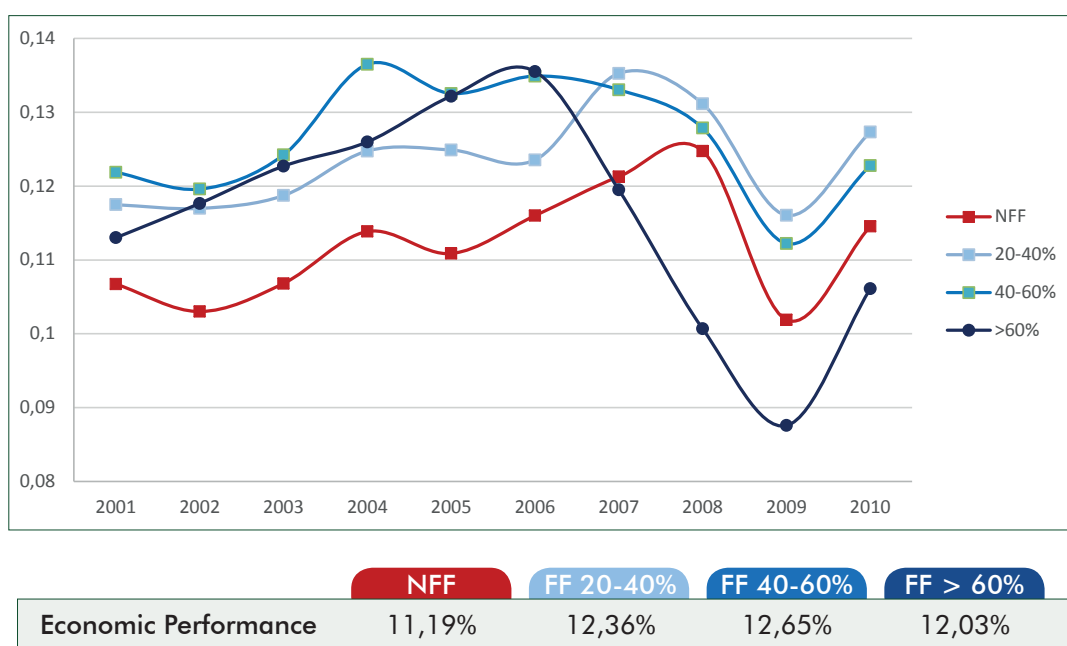


Figure 48. Changes in ROA 2001-2010

¹⁷Thomsen and Pedersen, 2000. Miguel, Pindado and de la Torre, 2004.

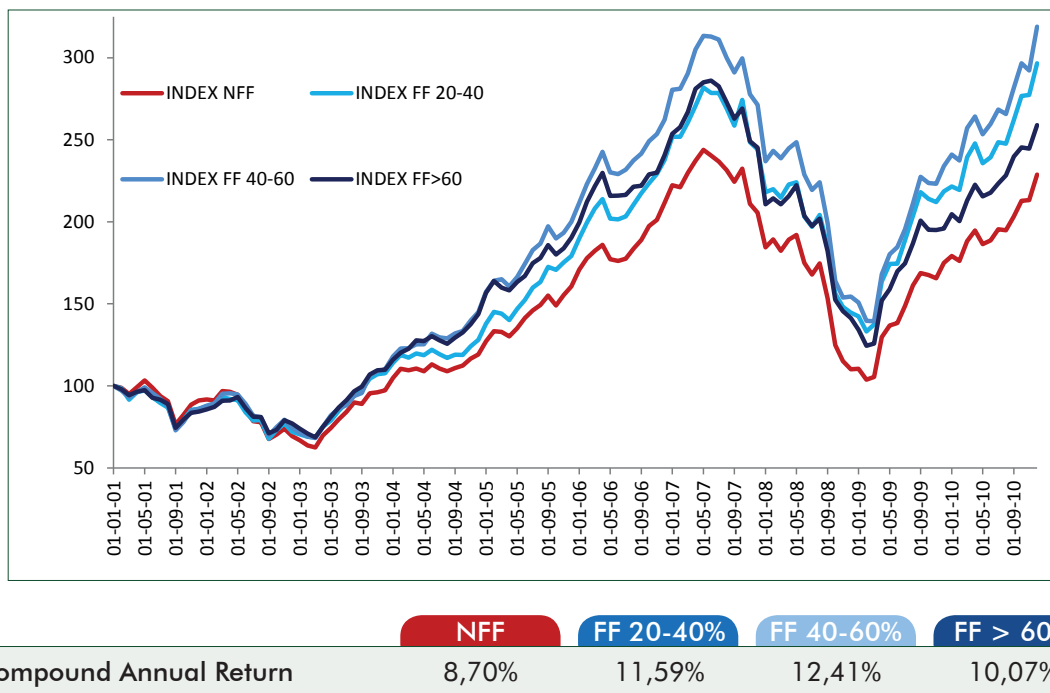


Figure 49: Stock return indexes by ownership

Family business risk by percentage of family ownership.

At risk level, our analysis of FBs by percentage ownership groups shows that FBs' lower economic and stock market risk and greater solvency compared to NFBs are maintained, although as the figures indicate there is a great deal of variability in the FB group.

In terms of insolvency risk, the case of firms where the family owns more than 60% is striking as their probability of bankruptcy is slightly higher than for NFBs (lower Altman Z-Score), and significantly higher than for other FBs.

By contrast, market risk is greater in the group of firms where family control is between 40-60% as these have a beta and volatility similar to NFBs, and higher than the rest of FBs.

Liquidity risk is greater than for NFBs in the three types of family businesses. However, as shown in Figure 54, this risk increases as the family ownership percentage rises, with the traded volume of FBs where the family owns more than 60% coming in well below the rest of family firms.

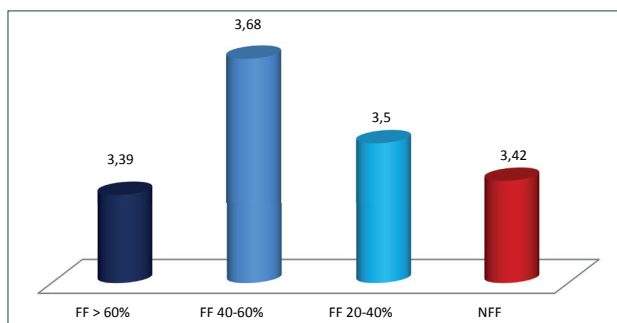


Figure 50: Solvency (Altman Z-Score)

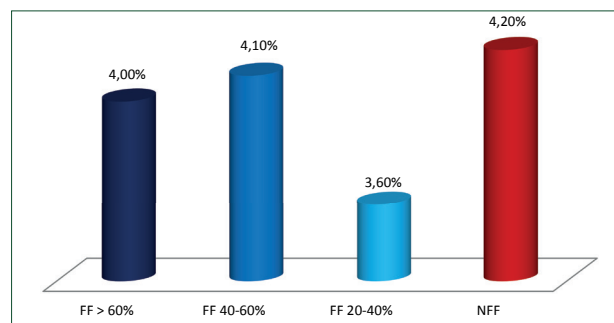


Figure 51: Economic risk (ROA volatility)

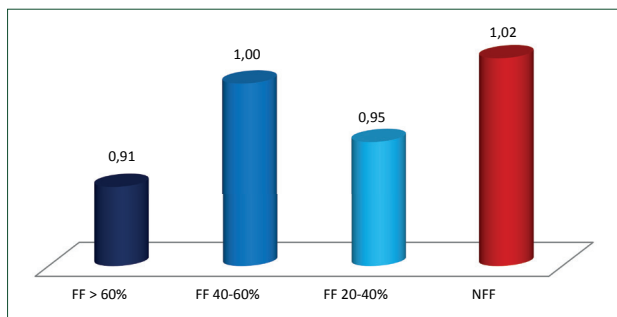


Figure 52: Beta

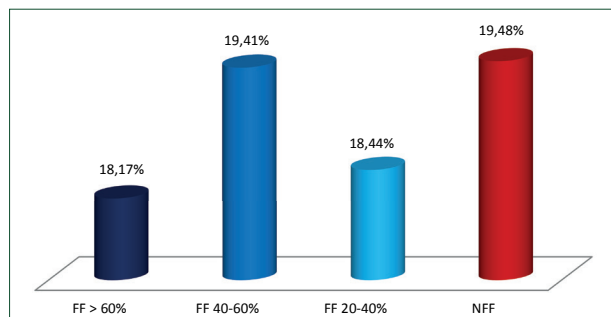


Figure 53: Stock market volatility

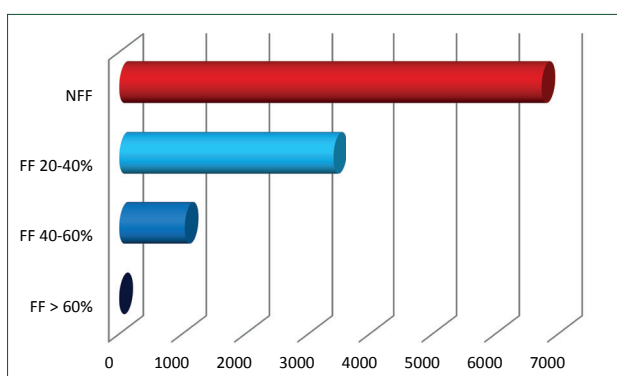


Figure 54: Stock market liquidity (average annual volume traded in EUR million)

Risk-return analysis of family businesses by percentage of family ownership.

Figure 55 shows that FBs where the family owns between 40-60% are the most profitable and have the greatest market risk. By contrast, FBs where the percentage of family ownership is more than 60% are less profitable, but also have a lower market risk. In any case, as the figure shows, the three types of FB provide greater performance than NFBs with lower market risk.

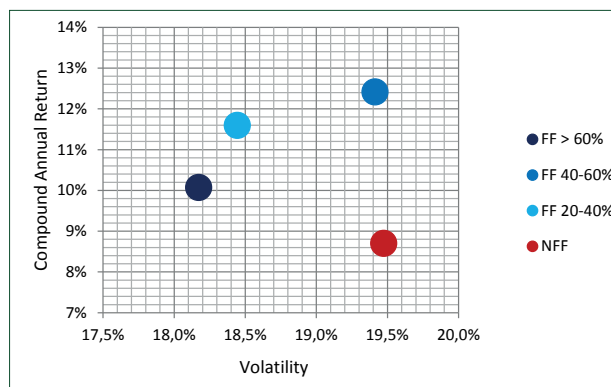
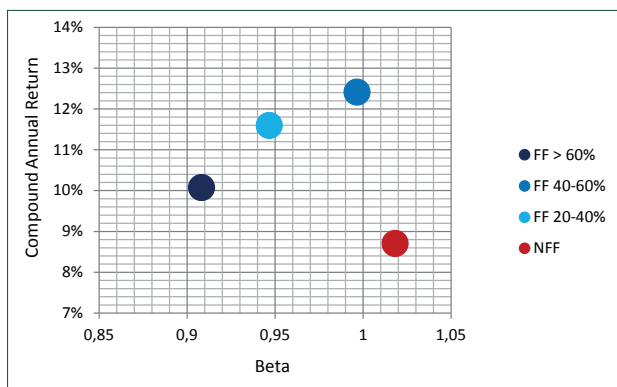


Figure 55: Stock market risk-return by ownership structure

Given these findings, and as occurs in the general comparison between FBs and NFBs, the question arises as to whether the “family premium” is maintained, regardless of the percentage held by the family, after discounting the effect of these risks.

To answer this, we again conducted regression analysis in which we included the different types of risk discussed in this section as control variables. We also divided the ownership variable into three dichotomous variables representing the family ownership bands into which we divided FBs (20%-40%, 40%-60% and over 60%)¹⁸.

Our regression analysis suggests that greater family ownership means greater ROA. In fact, when the percentage of shares held by the family is low (less than 40%) the “family premium” does not exist. Conversely, this is not the case for stock returns. Here the regression indicates that the “family premium” exists for companies in which the family owns between 20-40% and also for those in which the family owns between 40-60%. However, the regression analysis further suggests that once the effect of the various risks and the other variables that might affect stock returns¹⁹ has been discounted, FBs where the family owns more than 60% are not more profitable than NFBs.

	ROA	Stock Market Return
Family Ownership 20-40%	0.011	0.034 *
Family Ownership 40-60%	0.028 **	0.055 **
Family Ownership 60%	0.022 *	0.011
Economic Risk	-0.512 **	-0.145
Solvency	0.014 **	0.011 **
Liquidity		-0.008 *
Market Risk		0.102 *
Adj. R-Sq.	0.261	0.283
F test	7.409 **	7.803 **

(*)Statistically significant at 5%. (**)Statistically significant at 1%.

Table 3. Regression analysis by ownership

The regression results seem to suggest the existence of a linear relationship between family ownership and ROA (more family ownership means more ROA). This does not happen, however, in the case of stock returns. As shown in Figure 56, the impact of ownership on stock returns has an inverted-U function. In other words, when there is moderate family control (less than 40%) the percentage of ownership held by the family improves shareholder returns, but from this point onwards, the gain in return due to greater family control dwindles progressively, and even becomes negative for very high levels of family ownership (over 80%).

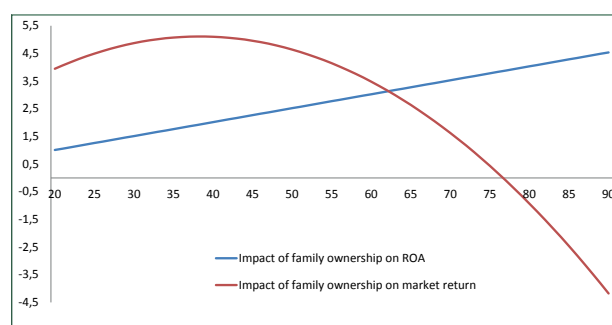


Figure 56. Impact of family ownership on company performance.

¹⁸ This division means that the reference variable used to compare each category is the non-family business. As in the previous cases, our regression analysis used the panel data technique with fixed effects. Likewise, the regression also included as control variables other factors affecting performance, such as the country, and the sector in which the company operates, and its size, borrowing, and book-to-market.

¹⁹ As in the previous cases the regression also included as control variables other factors affecting performance, such as the country, and the sector in which the company operates, and its size, borrowing, and book-to-market.

IX. Does the presence of the founder affect the performance of a family business?

YES. The "family premium" exists for businesses where the founder is present, and also for those which have already weathered the generational handover. However, the latter earn higher returns than founder firms and have lower market risk.

Companies with presence of the founder	Country
Compugroup Medical	Germany
Stratec Biomedical	Germany
United Internet	Germany
Gerry Weber International	Germany
Einhell Germany	Germany
Average Annual Return Top 5 FF with Founder present	24,90%

Companies in which the founder is not present	Country
Fuchs Petrolub AG	Germany
Faiveley Transport	France
Mulberry Group PLC	United Kingdom
Bijou Brigitte Modische Accessories AG	Germany
Elringklinger AG	Germany
Average Annual Return Top 5 FF without Founder present	34,80%
Average Annual Return Spread FF Founder present vs not present	-2,68%

Top 5 most profitable founder and descendant family businesses

STRATEC BIOMEDICAL



Company founded in 1979 in Germany by Hermann Leistner. It is a leader in developing and manufacturing assisted reproduction technology. Currently, the founder and his family own 41.96% of the company.

UNITED INTERNET



Company founded in 1988 by Ralph Dommermuth in Germany. It began by providing marketing services for small software providers, and then developed these services for clients such as IBM, Compaq and Deutsche Telecom. The founder now owns about 40% of the company's shares.

COMPUGROUP MEDICAL



Company founded in 1979 in Germany by scientist Frank Gotthardt, which makes software for the healthcare industry. Currently the founder owns about a third of its shares.

RISK-RETURN ANALYSIS OF FAMILY BUSINESSES BASED ON THE PRESENCE OF THE FOUNDER

There is usually clear leadership while the founder remains in the FB, and at this stage, the ownership and management of the company are almost completely the same, and there is a vague separation between family values and those of the company. The changeover to the next generation involves dilution of leadership, separation between ownership and management, and the emergence of differences between family and business interests. As a result, analyses of FB performance usually make a distinction between these two stages, i.e. of the founder and of subsequent generations²⁰.

Following this approach, in this section, we examine the risk-return of FBs by distinguishing between those companies in which the founder is present, and those where there has already been at least one generational change²¹.

Family business performance in terms of the presence or absence of the founder.

Our analysis shows the greater ROA and stock return of FBs compared to NFBs, regardless of the presence or absence of the founder. However, yet again there is a difference between those companies that have already weathered the generational handover, and those in which the founder is still present, which makes for some fascinating results.

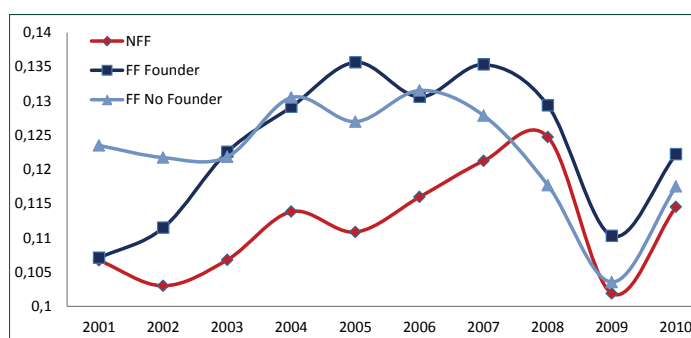


Figure 57. ROA

Economic Performance

NFF	FF Founder	FF No Founder
11,19%	12,33%	12,22%

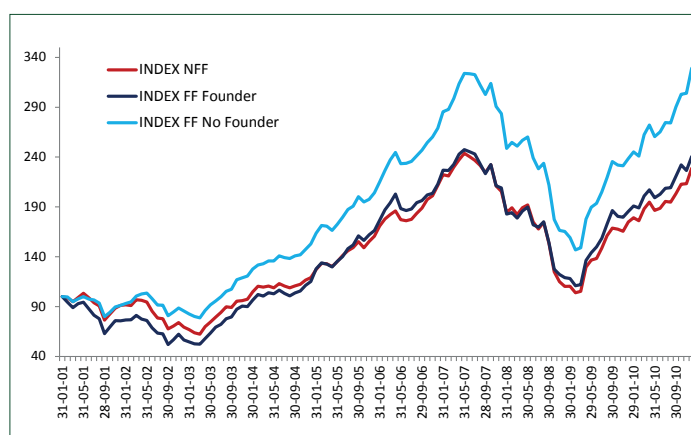


Figure 58. FB stock return indexes in terms of founder presence compared to NFBs

Compound Annual Return

NFF	FF Founder	FF No Founder
8,70%	9,26%	12,77%

²⁰ Miller and Le Breton Miller, 2006.

²¹ To determine the presence or absence of the founder in the family business, we manually reviewed the corporate governance reports of each of the sample companies, as well as websites with information about them. Companies where the founder was present in its ownership or corporate governance were classified as founder firms.

Family business risk in terms of the presence or absence of the founder.

Our risk analysis also revealed differences between FBs, depending on whether or not they have weathered the founder stage. As can be seen in the figures below, the market ascribes much greater risk to companies where the founder is present, as these are the firms with the greatest economic and stock market risk, so much so that founder FBs outdo NFBs in both risks. By contrast, founder FBs are clearly firms with lower risk of insolvency.

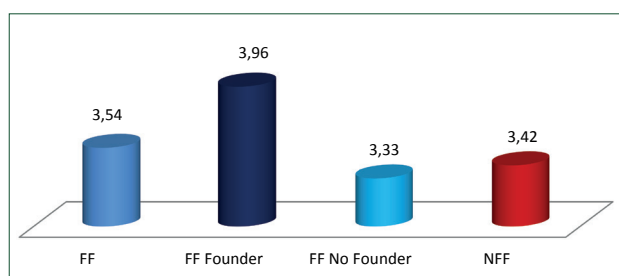


Figure 59: Solvency (Altman Z-Score)

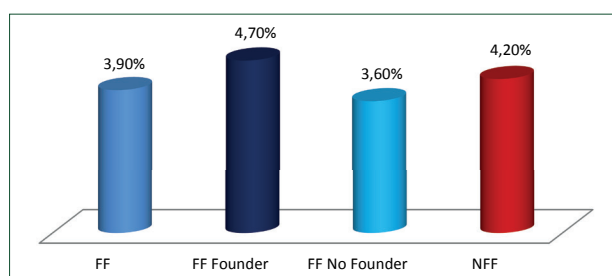


Figure 60: Economic risk (ROA volatility)

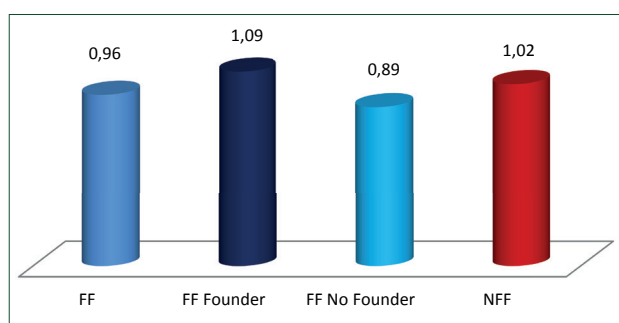


Figure 61: Beta

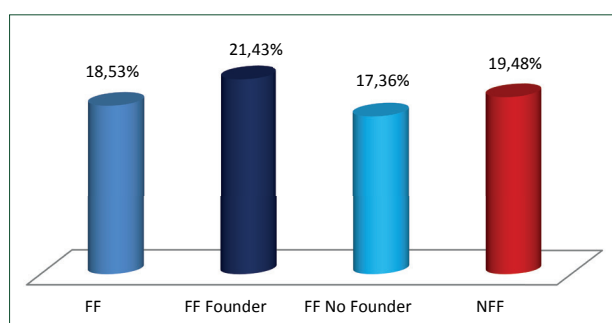


Figure 62: Stock market volatility

Figure 63 shows that the trading volume is much lower in founder firms, which suggests that the liquidity risk associated with these companies is greater.

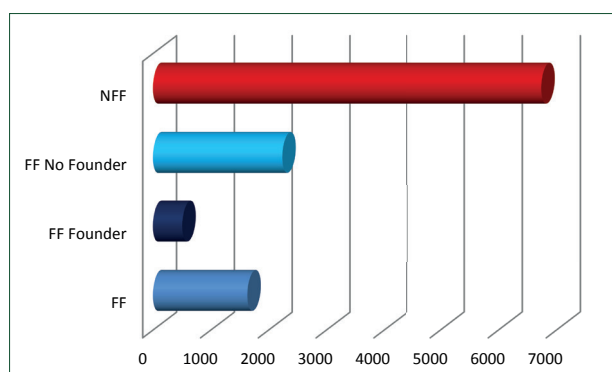


Figure 63: Stock market liquidity (average annual volume traded in EUR million)

Family business risk-return in terms of the presence or absence of the founder.

Our analysis of FB versus NFB risk-return which draws a distinction between the presence and absence of the founder throws up some interesting results. Over the course of the decade, companies in which the founder was present generated lower stock returns than descendant firms (albeit somewhat higher than NFBs) and yet had the highest risk levels in the sample.

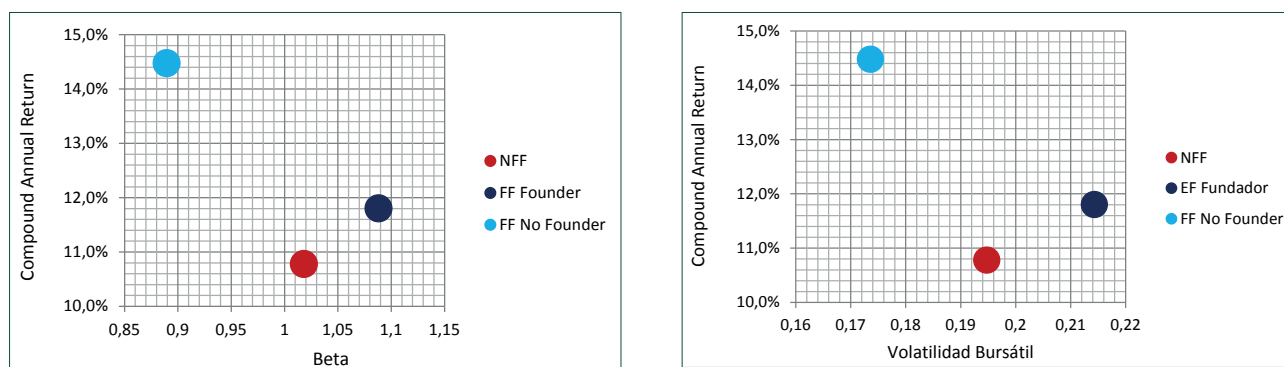


Figure 64. Stock market risk-return in terms of the presence or absence of the founder in the FB

Once more, and as occurred in the previous cases, these results pose the question about whether the return premium earned by FBs compared to NFBs is maintained after discounting the effect of these differences in FB risk, depending on the stage of the business. To answer this, we conducted further regression analysis using a variable which, in this case, measures whether or not the founder is present in the company as an independent variable²².

Our regression analysis indicated that in the case of ROA, founder companies are more profitable than NFBs but descendant companies are not. However, both types of FB did provide better stock returns than NFBs.

	ROA	Stock Market Return
Founder	0.032**	0.036 *
No Founder	0.014+	0.038 **
Economic Risk	-0.512**	-0.146
Solvency	0.014**	0.011 **
Liquidity		-0.007 *
Market Risk		0.104 *
Adj. R-Sq.	0.263	0.28
F test	7.633**	7.850 **
N	7357	7306

+ $p < .10$, * $p < .05$, ** $p < .01$

Table 4. Regression analysis based on whether the founder is present or not in the company

²² Thus, in this case, the two types of family business (founder and descendant) are compared with the non-family firms in the sample. The regression includes the same controls as in the previous cases but has also factored in the age of the company, to ensure we are capturing the founder effect, and not the fact that we are selecting the youngest companies in the sample.

X. And what does the market think?

The market penalises FBs compared to NFBs since FBs are valued lower. However, these differences are not independent of the context in which the companies operate or their features.

ANALYSIS OF THE DIFFERENCES IN VALUATION BETWEEN FBs AND NFBs AND BETWEEN THE DIFFERENT TYPES OF FBs.

The purpose of this section is to see whether there are differences in the market's valuation of FBs versus NFBs, considering firstly the heterogeneity between FBs and NFBs, and secondly, the diversity of FBs given the different contexts in which they operate, and their specific features due to the family dimension.

The indicator used to measure market valuation is book-to-market (BTM) calculated as the book value/market value of the company. Thus the higher a company's BTM, the lower it is valued.

Valuation of family versus non-family businesses.

The data confirm the findings of the 1st Banca Marche-IE Report about the valuation of FBs compared to NFBs: in spite of the higher ROA and stock returns generated by FBs over the period 2001-2010, they were, on average, valued lower by the market than NFBs (higher book-to-market).

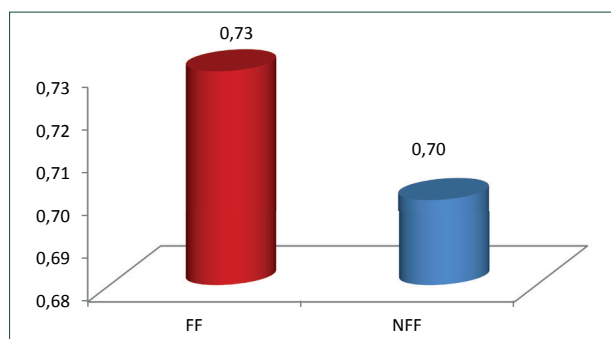


Figure 65. FB and NFB valuation

Valuation of family versus non-family businesses by factors related to the competitive environment and features of the company.

The country breakdown, however, reveals that these valuation differences are not uniform across countries. This is because the market valuation of both types of firms is strongly determined by the country or stock market where they are listed, with, for example, much higher valuations for both types of firms in the UK and Spain, than in other countries, especially in Italy.

In Germany, Italy and the UK, FBs are valued higher than NFBs. The biggest difference in the valuation of FBs is found in the UK, which is also the country where FBs are valued highest compared to other family firms. In the other countries, FBs are valued lower than NFBs although in this case the valuation differences between the two types of firms are less.

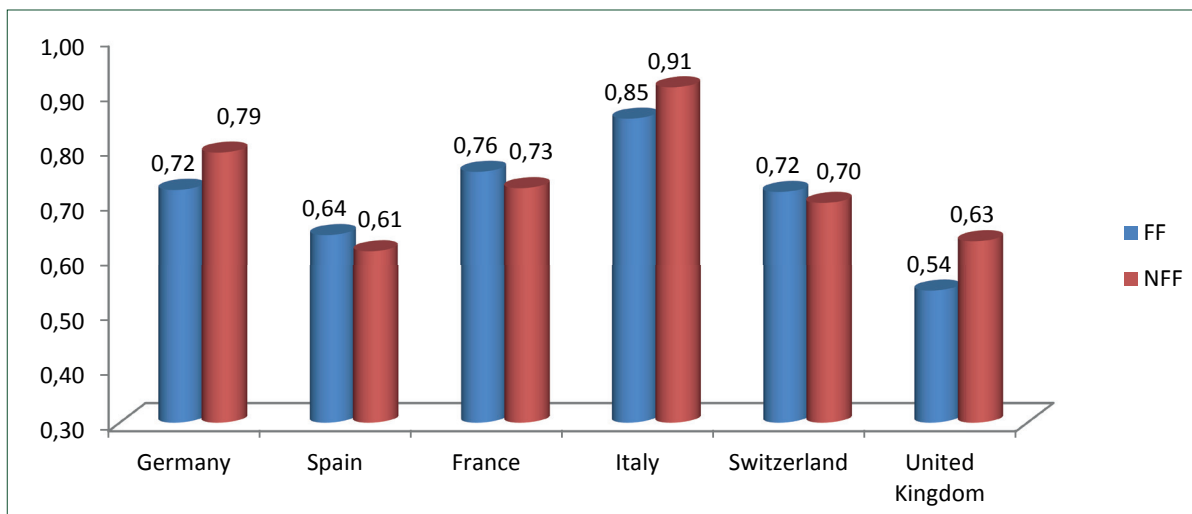


Figure 66. FB and NFB valuation by country

Our sector analysis indicates that in almost all the industries in which FBs predominate, they are valued lower than NFBs, with the exception of the textile industry, where the valuation of FBs is far superior to that of NFBs.

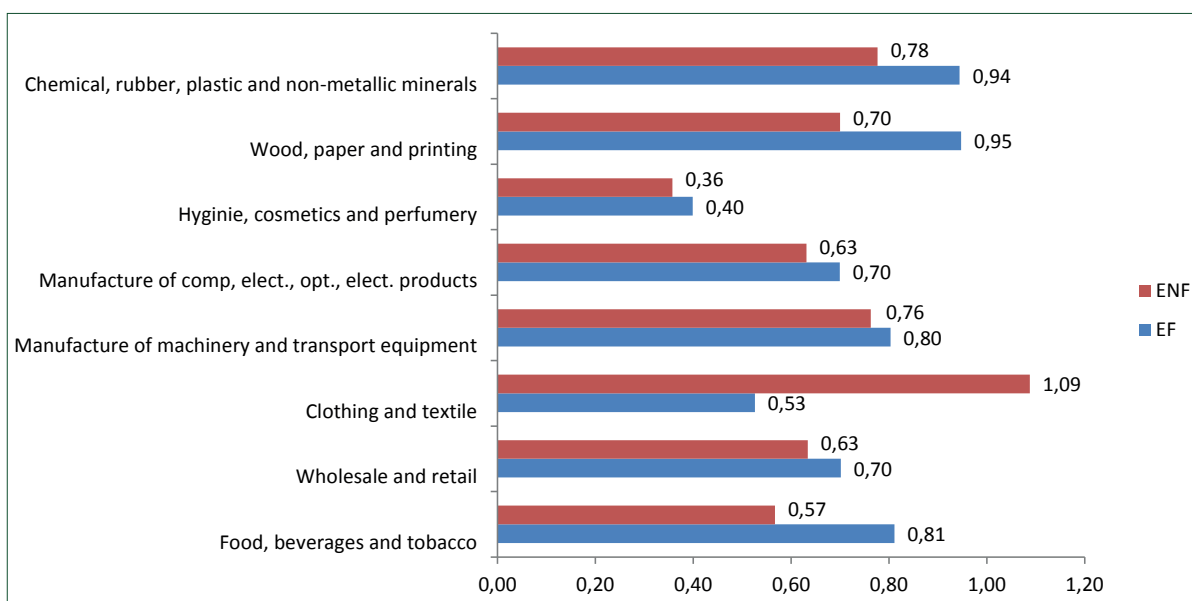


Figure 67. FB and NFB valuation in the sectors with greatest presence of FBs

Valuation of family versus non-family businesses in terms of factors related to firm size.

An analysis based on the size of the company indicates that FBs are penalised compared to NFBs mainly in the case of larger companies. In fact, in the case of smaller firms, FBs are valued higher than NFBs.

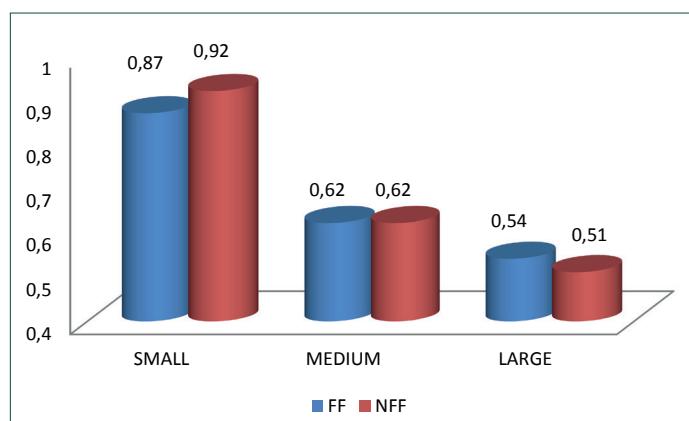


Figure 68. FB and NFB valuation by size

Valuation of family versus non-family businesses in terms of factors related to the family dimension.

In terms of the family ownership percentage, our analysis shows there are major valuation differences between FBs. In line with their higher stock returns, FBs which are 40%-60% family-owned are the most highly valued. Those in which the family owns more than 60% are clearly penalised by the market, even though as we saw above, their performance is higher than NFBs.

The market also values FBs differently according to whether the founder is present or not in the firm. In fact, when examining book-to-market we found that the lower valuation associated with FBs only occurs in the case of companies run by descendants, since founder firms are more highly valued by the market, and indeed better than non-family businesses. Oddly enough, as pointed out above, these descendant companies, which are penalised by the market, offer higher returns than founder firms.

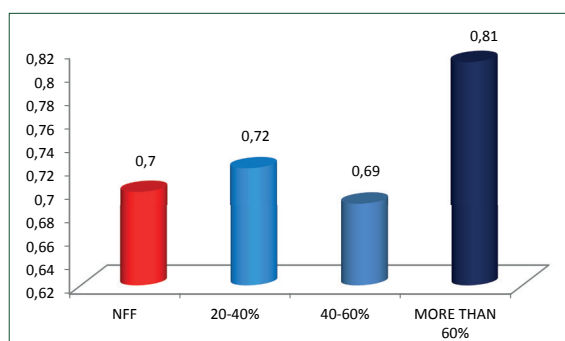


Figure 69. FB valuation based on ownership

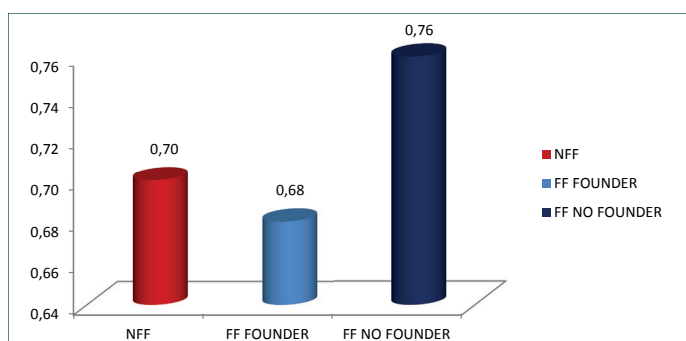


Figure 70. FB valuation based on presence of the founder

XI. Conclusions

The findings of the 2nd Banca March-IE Report have significant implications when it comes to considering whether to invest in listed family firms:

I. There is a “family premium” on European stock markets: Family firms outperform non family firms in the long run even differences between the two kinds of companies that might affect their performance (differences in terms of risk, the institutional and competitive environment, and company size) are accounted for. These results point to the presence of certain features associated with family control that determine the greater performance of family versus non-family businesses. Thus, there is a “family premium”.

II. The greater performance of family business is not compensation for taking higher risks, as family businesses have lower risk. Family firms have lower levels of economic (ROA volatility), market (beta, and share price volatility), and insolvency (Altman Z-Score) risk than non-family businesses. The only area where FBs have higher risk levels than NFBs is liquidity risk, as the volume traded annually in these businesses is significantly lower. However, this greater risk does not justify the existence of the “family premium”. Thus, the features associated with family control not only entail higher returns but also lower risk exposure for these companies.

III. The “family premium” is not independent of the sector, or of the country in which the firm is listed. This suggests that there are certain factors related to the competitive and institutional environment in which businesses are located, which would accentuate the advantages associated with family control:

i. In the case of sector analysis, listed family companies predominate in manufacturing sectors with low economic risk. This means that shares are more likely to remain in the hands of a family in less volatile environment in which the advantages of the greater stability in the management of human and financial resources traditionally associated with family control are more evident. This is reinforced by the fact that the three sectors in which FBs clearly outperform NFBs in stock returns (clothing and textiles, manufacture of machinery and vehicles, and manufacture of computer, electronic and household appliance products) are more labour-intensive sectors, and call for longer-term capital investment. **Hence, our findings suggest that management of the family business’s “patient capital” is a competitive advantage in more stable sectors, where the human factor and longer investment horizons are more important.**

ii. In the case of our country analysis, the fact that the “family premium” is much higher in countries such as Germany and the United Kingdom than in others, such as Spain and Italy, might indicate that the benefits of family control in listed companies are greater the higher the transparency and efficiency of corporate governance systems in the financial markets of each country.

IV. The difference in return between FBs and NFBs is much greater in smaller listed companies. The benefits of family control are more obvious in smaller listed companies (those with less than €350 million in market capitalisation). These are family businesses which are usually unknown to the general public, yet are leaders in their sectors, focusing on a niche strategy, with an extensive presence in international markets. These companies seem to combine the best of two worlds. Their (relatively) smaller size affords them greater independence and flexibility to adapt to changes in the environment, and also entails a greater influence of family values and culture in the management of the company. At the same time, their presence in capital markets provides them with access to resources and more professional management.

V. There is an optimum point in family ownership at which the benefits associated with family control begin to disappear. This optimum point is when a company is around 40% family-owned. This suggests that there should be a “balance” between family and market ownership, in order to avoid the risks associated with the possible expropriation of other minority shareholders’ income that may occur when family control is high.

VI. The “family premium” is not due to the greater performance of family firms in which the founder is present. Indeed, the performance of these companies is lower than that of those which have gone through at least one generational handover and which also have lower associated risk. Thus, the benefits of family control become more apparent as the generations pass.

VII. The market does not adequately value this “family premium”. Family businesses are clearly penalised and those which have already completed at least one generational handover even more so. **In terms of valuation, there is, thus, actually a “family discount”.**

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Annex I. SAMPLE SELECTION CRITERIA

The universe of companies in the 2nd BANCA MARCH-IE study is all listed companies in any European country reported in the ORBIS database (Van Dijk Bureau), not in the financial sector, and whose market capitalisation was over €50 million in late 2010. 2,881 companies were shortlisted on the basis of these criteria, and we then set the following filters to obtain our final database:

- Selection of countries where there was a significant number of listed companies with more than €50 million in market capitalisation (at least 50). This reduced our sample to an analysis of companies in France, the UK, Switzerland, Germany and Italy. We decided to retain Spain in our analysis even though only 48 companies met this criterion.
- Selection of companies listed throughout the period (2001-2010), and which had complete economic and financial data for the decade under review.

Selection of companies for which we could obtain ownership information for each of the 10 years analysed. Once we had obtained this ownership information, we decided to remove from our analysis:

- Companies whose available data did not allow us to identify whether they met the criterion of family business we were using. We did this so they would not distort the results should they be included erroneously in either group of firms (family versus non-family).
- Companies that changed from being family to non-family or vice versa during the decade under review. In other words, the sample firms had always been family or non-family during the ten years examined.

Financial and accounting data were obtained from Bloomberg, whilst information about company features (size, sector, country, age, etc.) came from the ORBIS database.

Data on the ownership structure and corporate governance of the businesses were obtained by an exhaustive search which examined each of the annual reports of each of the companies for the years in which they were available for the period 2001-2010, as well as information about ownership or corporate governance published on the websites of each of the companies examined.

Annex II: ALTMAN Z-SCORE

The Altman Z-Score initially proposed to measure the risk of insolvency of a sample of manufacturing firms is given by the following equation:

$$Z = 1.2T^1 + 1.4T^2 + 3.3T^3 + 0.6T^4 + 0.999T^5.$$

T^1 = Working Capital/Total Assets. Measures liquid assets in relation to the size of the company.

T^2 = Retained Earnings/Total Assets. Measures cumulative performance that reflects the company's age and earning power.

T^3 = EBITDA (Earnings Before Interest, Taxes, Depreciation and Amortisation)/Total Assets. Measures operating efficiency apart from tax and leveraging factors to recognise the company's long-term viability.

T^4 = Market Capitalisation/Book Value of Total Liabilities. Shows the company's solvency margin with respect to fluctuations in its share price.

T^5 = Sales/Total Assets. This is an indicator that varies from industry to industry, and shows how efficiently the company manages its assets.

The Z-score threshold values for classifying companies as solvent or insolvent are:

- $Z > 2.99$ – solvent
- $1.81 < Z < 2.99$ – at risk
- $Z < 1.81$ – insolvent

Annex III: ESTIMATION OF BETA USING THE CAPM

Financial literature suggests using the Capital Asset Pricing Model (CAPM) to analyse the risk-return ratio of listed companies. This model states that the return received by investors or shareholders of a listed company should be equal to that offered by a risk-free asset (fixed-income assets issued by the government of the country) plus a return premium based on the company's beta (a factor indicating the company's market risk). The CAPM is given by the following equation:

$$R = R_f + \beta (R_m - R_f)$$

Where R is the stock return of the company or portfolio of companies, R_f the risk-free return, beta is the market risk factor for the shares of the company or portfolio of companies, and R_m is the overall stock return for the company's market.

The beta for the shares of a company or portfolio of companies is estimated by regression, based on the historical data for the return generated by these shares, the market concerned and the risk-free asset. This is the method we used in this report to estimate the beta of the stock portfolios used in the analysis, family and non-family firms in general, by sector, country, size, family ownership, etc. We then used this beta to measure the market risk of the various types of companies we analysed.

By way of example below are the data for the beta estimates made using regressions based on the CAPM in the section on analysis of family versus non-family businesses by size (Section VII). The other estimates are available upon request and are not shown in the report for reasons of space, although the estimated betas are set out in each section and all of them are statistically significant.

Portfolios	Monthly Alpha	Beta	Adj. R-Sq
Small FF Companies Portfolio	0,28% **	0,89 **	92%
<i>p-value</i>	0,03	0,00	
Medium FF Companies Portfolio	0,10%	1,06 **	96%
<i>p-value</i>	0,39	0,00	
Large FF Companies Portfolio	-0,03%	0,92 **	82%
<i>p-value</i>	0,91	0,00	
Small NFF Companies Portfolio	-0,10%	1,04 **	93%
<i>p-value</i>	0,47	0,00	
Medium NFF Companies Portfolio	0,01%	1,08 **	97%
<i>p-value</i>	0,89	0,00	
Large NFF Companies Portfolio	-0,20%	0,89 **	89%
<i>p-value</i>	0,21	0,00	

(***) and (**) Statistically significant at 1 and 5% respectively.

Table showing beta estimates using CAPM for portfolios of firms by size



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Cristina Cruz has a degree in Economics from Murcia University, a BA in International Economics from Manchester University, an Executive Development program qualification in Family Business from the Instituto de Empresa, and a PhD in Economics and Quantitative Methods from Carlos III University.

The results of her research, which focuses mainly on entrepreneurial management and family business, have been published in leading international academic journals including the Academy of Management Journal, Administrative Science Quarterly, Journal of Business Venturing, and Entrepreneurship Theory and Practice. Her academic work has been internationally recognised on numerous occasions. For example, in 2009 her article entitled Socioemotional Wealth and Corporate Response to Institutional Pressures: Do Family-Controlled Firms Pollute Less? received the Best Paper Award in the Corporate Governance Division at the European Academy of Management Conference. In recognition of this research work, IE Business School gave her its Research Excellence Award in 2010, a prize that the school presents to its best researchers.

Professor Cruz brings the results of her research to the classroom, where she instils in future generations the need to preserve and pass on entrepreneurship in business families. Her teaching on MBA courses and in Executive Education is always highly rated by students and internationally recognised as well. In 2011 she was one of the lecturers selected by the Family Firm Institute (FFI) to present her innovative teaching methods in family business issues at the Family Business Research & Education Symposium. She is also the author of numerous cases studies involving successful family entrepreneurs and businesses.



Laura Núñez Letamendia,

Professor of Finance, IE Business School

Laura Núñez has a degree in Economics from the Autonomous University of Madrid and a PhD in Finance (specialising in Banking and the Stock Exchange) from the same university. Her doctoral thesis about investment in listed companies was given an award by the Caja Madrid Foundation.

She began her career working as a financial market analyst and portfolio and fund manager at Bestinver SVB, GVC SVB and Norwich Union. She then joined the IE Business School where in addition to teaching on various programmes (MBA, Executive MBA, LLM, PhD, DBA and MiM) she also served as Director of Research from 2001 to 2007. In recent years she has been a Visiting Scholar at Bentley University in Boston and has done specialised courses at Harvard Business School.

Her research is mainly into capital markets and investment and risk management as well as improving quantitative analysis techniques. One of the issues she is passionate about is using artificial intelligence techniques to select stock market, financial and economic indicators in order to anticipate market movements and limit risk. Her research has been funded by competitive public programmes such as the EU Framework Programme and Spain's National R&D Plan, and her findings have been published in international journals with anonymous peer review and recognised impact in the JCR (Journal Citation Report), Energy Policy, Soft Computing, IMA Journal of Management Mathematics, Computational Statistics & Data Analysis, European Journal of Operational Research, Int. J. Data Mining, Modelling and Management, and Managerial Finance, as well as in international books (Studies in Computational Intelligence - Springer 2012, Lecture Notes in Computer Science - Springer 2012) and domestic journals.

