




# “Family affairs – Corporate governance involvement of families and stock market returns”

<b>AUTHORS</b>	Fabio Franzoi  Mark Mietzner 
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Fabio Franzoi, M.A., Ph.D. Student,  
Zeppelin University, Friedrichshafen,  
Germany. (Corresponding author)

Mark Mietzner, Doctor, Professor,  
HTWK Leipzig University of Applied  
Sciences, Leipzig, Germany.



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Fabio Franzoi (Germany), Mark Mietzner (Germany)

# FAMILY AFFAIRS – CORPORATE GOVERNANCE INVOLVEMENT OF FAMILIES AND STOCK MARKET RETURNS

## Abstract

This study explores the association between family influence in firms and stock market returns in Germany, a country with a less investor-friendly corporate governance system where shareholders cannot directly influence top managers. The study forms portfolios of firms with and without the influence of families as shareholders or members of the firm's legal bodies. The models estimate portfolio returns from 2003-2013 using a four-factor model. Results suggest that corporate governance is highly correlated with stock returns in Germany. Specifically, they document a significant relationship between family influence and firm valuation. Firms with stronger family influence via voting rights and board-participation are found to have a higher firm value (annualized excess return: 0.48%-6.00%). The study interprets this to mean that families may improve a firm's internal corporate governance, as their strong motivation and ability to become actively engaged in a firm's daily operations or to assume a monitoring role distinguishes them from other corporate blockholders. The results add to those of an increasing number of publications finding a positive association between strong family governance and performance. They contribute to a year-long scholarly exploration of performance differences among family and non-family businesses, mainly by defining the former by mere ownership. The study combines a large set of governance provisions into a novel, transparent, and replicable index of family involvement and then estimates the empirical relation with market performance. The index captures influence via shareholder voting rights, considers direct influence of owners on day-to-day operations, and controls for indirect influence via supervisory board.

## Keywords

abnormal returns, corporate governance, family firms, ownership structure, shareholder activism, blockholders, stock market performance

## JEL Classification

G14, G32, G34

## INTRODUCTION

A country's shareholder structure is significantly impacted by its legal and constitutional setting (La Porta et al., 1998, 1999). Due to the relatively low level of shareholder protection, German firms tend to exhibit fairly concentrated structures (Faccio & Lang, 2002; Becht & Boehmer, 2003; Barontini & Caprio, 2006; Achleitner et al., 2009, 2019). Despite the fact that large shareholders may be more effective at firm monitoring (Shleifer & Vishny, 1986), recent studies note these blockholders differ in their impact on corporate policies and corporate performance (Cronqvist & Fahlenbrach, 2009; Mietzner & Schweizer, 2014).

In contrast to prior studies on other regions, recent research documents blockholder's heterogeneity in Europe and Germany (Andres, 2008; Mietzner & Schiereck, 2016; Schüler et al., 2019). Capital markets, however, react differently to shareholders who actively handle agency problems. Consider, for example, private equity investors. They have been shown to create higher abnormal returns than hedge funds – presumably due to their long-term orientation and better adaptability to the given corporate governance framework (Mietzner & Schweizer, 2014).

Given their monitoring incentives and firm-specific knowledge (Klein, 2000; Anderson & Reeb, 2003a), the paper posits that families as blockholders represent a specific type of large shareholder that imposes a particular corporate governance setting on family firms. Unlike other investors, families are generally more long-term-oriented (Anderson & Reeb, 2003a), and have a high proportion of wealth invested in their companies (Anderson & Reeb, 2003b).

Germany has an unusual corporate governance framework, featuring 1) a two-tier board system that is mandatory for listed firms (i.e., executive and supervisory board), and 2) employees' codetermination on the supervisory board, which substantially limits shareholders' control over top executives at annual meetings (Gorton & Schmid, 2000). Families carry an inherent interest in monitoring and affecting management decisions (Anderson & Reeb, 2004). To effectively control their assets, a significant number of family members belong to the executive or supervisory board in listed family firms (Andres, 2008; Ampenberger, 2010)<sup>1</sup>. The corporate governance framework of Germany provides family shareholders with various options to either directly influence firm policies via representatives on the executive board or to control and influence the firms they are invested in via representatives on the supervisory board (Franzoi et al., 2021). Family involvement may therefore serve as a proxy for the specific corporate governance framework of family firms in Germany.

Differences in the performance of family firms and non-family firms, as well as the means of family influence on firm performance, are the prominent points of a year-long discussion in the literature (Mazzi, 2011; O'Boyle et al., 2012; Wagner et al., 2015; Taras et al., 2018; Azila-Gbettor et al., 2018). Various studies have explored differences in the market anticipation and performance of firms held by families/founders/CEOs and non-family firms. Most find equal or superior performance of family firms (Corstjens et al., 2006; Cella, 2009; Fahlenbrach, 2009; Miralles-Marcelo et al., 2013, 2014; Lilienfeld and Ruenzi, 2014; Lipiec, 2014; Eugster & Isakov, 2019). Some studies on Germany have explored stock ownership variables (Corstjens et al., 2006), or the imprecise application of dummy-variables for the management participation of a family member (e.g., Cella, 2009).

None of the previously cited publications consider the degree of family-shareholder involvement in the company's legal bodies. Thus, the real influence of the family on the firms' corporate governance is under-researched. This research gap is particularly severe in states with a minor level of shareholder protection like in Germany, where minority shareholders' influence is mainly limited to the annual shareholders' meeting. Gompers et al. (2003), Bebchuk et al. (2009), and other authors have shown that the stock market performance of listed firms in general may be significantly influenced by corporate governance differences between firms. However, these publications focus on an outsider-controlled system in the United States (results are therefore not directly transferrable to the corporate governance system of Germany), and, most important, they do not at all focus on family investors. Due to their previously argued features, this paper posits that corporate governance systems characterized by family ownership and family board presence may explain these differences in corporate governance and subsequently stock market returns in Germany.

The sample employed for this study embodies a unique research opportunity as it identifies every family shareholder as well as the (family-) background of every single member of the executive and the supervisory board of every firm-year by hand. To the best of the authors' knowledge, no such fine-grained data set exists in Germany, since the build-up of this data is extremely time-consuming and costly. The paper argues that in the corporate governance framework of Germany (Becht & Boehmer, 2003), such a depth of information is inevitable to assess the influence of family investors throughout the shareholder structure and legal bodies of listed firms, while solely considering voting shares would be insufficient.

<sup>1</sup> A significant share of a family's capital is tied-up in the family business, which is why families often have poorly diversified portfolios (Anderson & Reeb, 2003). For this reason, family shareholders have an inherent interest in affecting firm policies and control managers (Anderson & Reeb, 2004).

The methodology of the study subsequently adapts the idea of Gompers et al. (2003) and forms annually adjusted family and non-family portfolios using a novel, transparent, and replicable index of family involvement in a firm. Next, the study estimates a four-factor model of monthly stock market data from 2003 to 2013 to identify potential abnormal returns between portfolios containing firms with a specific corporate governance shaped by families and portfolios with non-family firms.

## 1. LITERATURE REVIEW

### 1.1. Families as blockholders

The legal and institutional framework of a country has major effects on its ownership structures (Becht & Boehmer, 2003; Djankov et al., 2008). Countries with low shareholder protection with a civil law origin like Germany (La Porta et al., 1998) give rise to relatively underdeveloped capital markets with more concentrated ownership structures (La Porta et al., 1999; Becht & Boehmer, 2003; Faccio & Lang, 2002; Djankov et al., 2008). As a consequence, large and actively engaged blockholders are expected to mitigate agency conflicts alongside shareholders and managers and thus increase firm value (Shleifer & Vishny, 1997).

Yet these blockholders differ from each other, as Cronqvist and Fahlenbrach (2009) find blockholder-fixed effects and that “different large shareholders have distinct investment and governance styles”. They conclude that blockholders with higher monitoring abilities are found to have larger impacts on both firm policy and performance. Correspondingly, Mietzner and Schweizer (2014) find that German capital markets react differently on the engagement of different investors, depending on their monitoring abilities and incentive structure. Mietzner and Schiereck (2016) describe that the size of value creation in case of newly formed blocks of shareholders depends on the identity of the block acquirer and subsequent monitoring implications, as shown for strategic investors and activist sponsors.

Other studies find similar effects specifically for family investors as family-based acquisitions in Continental Europe have been analyzed to generate significant abnormal returns (Schüler et al., 2016). While controlling for different types of blockholders in firms, Andres (2008) concludes that families as shareholders appear to successfully balance agency problems associated with the existence of a large blockholder, especially in the case of families.

Families as large blockholders have a specific effect on the firms’ corporate policies and on the agency relations within the firm and among other shareholders of the firm. Due to the legal preconditions in Germany, firms tend to exhibit rather concentrated ownership structures (Becht & Boehmer, 2003; Barontini & Caprio, 2006), and families are among the most prevalent blockholders (Faccio & Lang, 2002; Achleitner et al., 2009, 2019). Hence, due to their concentrated shareholding family, blockholders are highly incentivized to monitor their assets (Demsetz & Lehn, 1985). Furthermore, the corporate governance of a firm may profit from the family’s superior knowledge of the firm (Klein, 2002; Anderson & Reeb 2003a), as for example in Germany in 55% of firms held by families, a family member is also a CEO on the executive board (Ampenberger, 2010). Hence, the corporate governance system of firms may profit from family blockholders by reducing agency conflicts between managers and shareholders through advanced monitoring.

At the same time, the prominent influence of family members in the firm may hamper firm value due to costs arising from agency conflicts between the majority shareholder (e.g. the family blockholder) and other minority shareholders that may fear expropriation (Shleifer & Vishny, 1997; Anderson & Reeb, 2004; Villalonga & Amit, 2006). However, this risk may be offset by the fact that unlike other investors, families are basically perceived as long-term-oriented (Anderson & Reeb, 2003a) with an intrinsic incentive for the success and survival of their investment (Gottardo & Moisello, 2017), as they usually have a major proportion of their assets and wealth of the family invested in their firms (Anderson & Reeb, 2003b).

### 1.2. Corporate governance and stock market returns

Shareholders’ direct influence on corporate decisions is limited in Germany. Unlike in Switzerland, the UK or US, the German stock corporation law

prescribes a two-tier board corporate governance framework prescribing an executive and a supervisory board. The shareholders' meeting may not issue instructions to the executive board and can only appoint limited positions in the supervisory board, as due to the German concept of co-determination, some members of this board may be appointed by employees (Gorton & Schmid, 2000). The executive board is indirectly appointed by the supervisory board.

Hence, to safeguard their assets, family shareholders are commonly engaged in the legal bodies of their firms (Andres, 2008). Studies in Germany, for example, find that members of the shareholding founding families are present in more than two thirds of executive boards and more than one third of supervisory boards (Ampenberger, 2010; Achleitner et al., 2019). The means of engagement of shareholding family members may thus vary from voting as a shareholder during the annual stockholders'/general meeting to monitoring the firm as a supervisory board-member or to actively participating in the executive board of a company. With regard to these means, family involvement is expected to serve as a proxy for the particular corporate governance framework in German family firms.

Differences in accounting-, operational- and market<sup>2</sup> performance between family firms and non-family firms are found to be related to family management-involvement, although family involvement is often captured via the imprecise application of a dummy variable for the management participation of family members (i.a. Mazzi, 2011; Taras et al., 2018). The findings on the moderating role of family management presence have been similar in Western- and Continental-European countries (Maury, 2006; Barontini & Caprio, 2006) and Germany (Andres, 2008; Achleitner et al., 2019).

By contrast, the few existing studies on stock market returns of family businesses are primarily based on pure ownership definitions of family firms (i.a. Corstjens et al., 2006; Eugster & Isakov, 2019). Results of these studies show an equal or better performance of family firms:

Family firms in Switzerland appear to generate significant abnormal returns (Eugster & Isakov, 2019). In Portugal and Spain, Miralles-Marcelo et al. (2014) find at least the same performance for family as for non-family businesses. The number of studies on stock returns of family firms in Germany is rather limited. In a cross-country study of Western-European countries, Cella (2009) finds that in Germany, family firms outperform their non-family counterparts. Corstjens et al. (2006) investigate the stock market development of family firms and non-family firms in France, Germany, the UK and the US. They conclude that the performance of family firms is at least as good as the performance of non-family firms across all states investigated.

Following this literature review, the pivotal research objective of this paper is the notion that with regards to differences in market performance of family and non-family firms, the real-world influence of family shareholders and members on the firms' corporate governance has generally been under-researched. This is particularly the case in a less investor-friendly corporate governance system (like in Germany) where shareholders cannot exercise direct control over top executives (like in the US). Especially blockholder-specific incentive structures and monitoring abilities are assumed to explain differences in stock market performances. This factor is disregarded in the few existing studies that access the stock market returns of family firms primarily via ownership definitions. In their influential publication, Gompers et al. (2003) showed that stock market performance in general may be explained by differences in corporate governance of firms over a longer span of time. Subsequent articles such as by Bebchuk et al. (2009) replicated the results on stock market returns for different sets of corporate governance proxy variables. While the methodological approach of these publications may serve as a blueprint for the assessment of corporate governance influences on equity prices, their results are not directly transferrable to Continental Europe: Firstly, the authors analyze firms in the United States

2 Market performance differences are largely accessed via Tobin's Q (Taras et al., 2018) by existing literature.

in an outsider-controlled system of corporate governance. Approaching corporate governance influences in an insider-controlled system like in Germany may require information on the presence of blockholders in the institutions of the firm (Becht & Boehmer, 2003). Secondly, while Cronqvist and Fahlenbrach (2009) find blockholder-specific effects on corporate policies (without assessing stock market returns), the aforementioned publications of Gompers et al. (2003) and Bebchuk et al. (2009) do not at all consider the specific effects of families as investors on corporate governance. The literature review of this study concludes that family investors in Germany feature a variety of unique implications for both corporate governance and performance. Against the backdrop of the particular legal framework of German stock corporations, this paper hypothesizes, that the firm-specific influences of families on the corporate governance systems of the companies they are invested in may explain stock market return differences between family firms and non-family firms.

## 2. METHODOLOGY

### 2.1. Sample and family influence index

The employed panel dataset includes 278 listed German companies (Composite Deutscher Aktienindex/CDAX) from 2003 to 2013. The sample further excludes banks and insurance companies and preferred shareholders without voting rights, and only covers common shareholders. Financial data is retrieved from DataStream by Refinitiv. The start in 2003 avoids distortions due to the introduction of the German Corporate Governance Index that came into effect in August 2002. The paper argues that the observation period up to 2013 (including the financial crises) is particularly well suited for the research objective of this paper to examine the management and monitoring capabilities of family investors and connected capital market valuation. Caused by ongoing conventional and unconventional monetary policy interventions, the period since 2014 is

increasingly shaped by a disconnection between financial markets developments and fundamentals of the real economy<sup>3</sup> – peaking in the latest financial market anomalies in 2020 (Financial Stability Committee, 2017; Sigl-Glöckner, 2018; Igan et al., 2020). As it would be increasingly difficult to differentiate the influence of corporate governance on capital market valuation in an environment with suspected market bubbles (Hudepohl et al., 2019), this study excludes the years after 2013 to ensure that the findings are generalizable to an economic steady state.

Research on family businesses has struggled somewhat to adequately define what constitutes a family firm, especially when studying performance (Mazzi, 2011). This paper builds on prior approaches of Astrachan et al. (2002), Klein (2000), and Achleitner et al. (2009, 2019) and introduces an advanced tool to measure family influence that was created particularly to assess the effect of corporate governance features.

The approach used in this study has two key elements: 1) It avoids dichotomous distinctions between non-family firms and family firms while allowing for a diverse assessment of family influence, and 2) it does not rely on companies' self-assessment of databases (e.g., the F-PEC scale), which may be imprecise or out of date. The dataset provides for uniquely fine-grained information on the corporate governance influence of families. While this paper considers such a depth of information inevitable against the backdrop of the German corporate governance system, to the best of the authors' knowledge, no such dataset on German listed firms exists, as the collection of this data is extremely time-consuming.

To begin, for each year in the observation period, company-specific information on each shareholder (with >5% of voting rights), the background of each member of the board of directors ("Vorstand"), as well as the supervisory board ("Aufsichtsrat"), is hand-collected from the yearly financial statements, information provided by the firm (e.g., web site, press releases), and the data provider Dafne. The general methodology of the paper then follows Gompers et al. (2003)

3 The leading German stock market index DAX surged by 37.4% from 2014 to 2018 alone and the MSCI Europe increased by almost 50% up to the beginning of 2020.

in their construction of a governance index (G-index) to investigate the empirical relationship with stock market performance<sup>4</sup>. For each firm, one point is added for a characteristic of the family governance influence (maximum index score of 12), which keeps the index transparent, straightforward, and effortlessly replicable. A detailed list of index components and definitions is in Table 1.

**Table 1.** Family influence index

Index Component	Definition
Ownership	Family voting share >5%
	Family voting share >25%
	Family voting share >50%
Executive Board	Family member holds CEO position
	Family members are present on executive board
	Family holds majority of executive board positions
Supervisory Board	Family member holds chairman position
	Family members are present on supervisory board
	Family holds majority of supervisory board positions
Founder Presence	Founder holds CEO or executive board position
	Founder holds supervisory board position
	Founder/founding family voting share > 25%

*Note:* This table reports the construction of the family index used to identify the firms attributed to the family portfolios. Company-specific information on each shareholder (>5% of voting rights), and the background of each representative in the executive board and supervisory board in each year is hand-collected from yearly financial statements, information provided by a firm (e.g. web site, press releases), and the data provider Dafne. One point is added for each characteristic of family governance influence that the firm meets (maximum index score of 12).

As the G-Index by Gompers et al. (2003), the family firm-index in this study consists of partial indices which are based on: 1) Ownership, 2) Management participation (via Executive Board), 3) Control (via the Supervisory Board), and 4) Founding Family Presence. These partial indices account for particularities of the German Corporate Governance System. The Ownership Index takes into account, for example, the fact that the German Stock Corporation Act (Aktengesetz/AktG) stipulates that decisions such as the dismissal of a Supervisory Board member (Section 103 AktG) require a majority of more

than 75% at the company's Annual General Meeting. Majority shareholders with more than 25% but less than 50% of outstanding voting rights can therefore block important strategic corporate decisions (Achleitner et al., 2009). By adding one point to the ownership index if a family holds at minimum voting rights-stake of 25%, the index accounts for this influence. Similarly, other partial indices increase with rising family representation on the executive and/or supervisory board, as well as the presence of the founder or the founding-family to account for their broadly recognized impact on performance (e.g., Mazzi et al., 2011).

## 2.2. Model

The empirical methodology uses the annual index scoring of the firms to model two separate portfolios<sup>5</sup>: The Family Portfolio contains companies with a score of  $\geq 7$ ; the Non-Family Portfolio contains companies with a score of 0. Portfolios are remodeled each year according to the firm's specific annual scoring (Gompers et al., 2003). To model the annual buy-and-hold returns, the total return index value  $I_i$  of stock  $i$  on the first trading day of the following month is divided by the index value of the first day of month  $t$ , before subtracting 1. Portfolios are equally value-weighted according to the market capitalization of the companies in relation to the total market capitalization of the corresponding portfolio.

$$R_p = \alpha + \beta_1(R_m - R_f) + \beta_2SMB + \beta_3HML + \beta_4WML + e_t \quad (1)$$

The study employs a four-factor model (Fama & French, 1993; Carhart, 1997) to estimate the potential influence of corporate governance regimes shaped by families on stock market returns. The dependent variable  $R_p$  denotes either the portfolio excess return  $(R_p - R_f)$ , or the difference between the returns of the *Family Portfolio* less the return of the *Non-Family Portfolio*  $(R_{FP} - R_{NFP})$ . This equals an investment strategy long on firms with family influence and short on firms with no

4 In their popular study, Gompers et al. (2003) built a "Governance Index/G-Index" to assess the level of shareholder rights. The G-index is the sum of one scalar for the presence of each out of 24 governance rules and used as a proxy for the correlation of corporate governance on the one hand and performance on the other hand.

5 The use of portfolios to estimate differences among family/non-family firms and portfolio excess returns has been used before (e.g., Cella, 2009; Fahlenbrach, 2009; Miralles-Marcelo et al., 2013; Eugster & Isakov, 2019). However, to the best of the author's knowledge, it has not been operationalized in this way with an index of family influence in ownership and management.

family influence. Data on German-specific factors come from Richard Stehle's website<sup>6</sup>. The estimated intercept  $\alpha$  is perceived as the abnormal return in excess of what could have been achieved by passive investments in the factors (Gompers et al., 2003; Bebchuk et al., 2009).

### 3. RESULTS AND DISCUSSION

#### 3.1. Family influence and portfolio buy-and-hold returns

The companies in the sample are sorted into three portfolios based on their year-specific value in the

family influence index. Table 2 lists the quantity of firms in portfolios. Table 3 gives summary statistics for the family influence index and its four subindices 1) Ownership, 2) Management participation (via Executive Board), 3) Control (via the Supervisory Board), and 4) Founding Family Presence over time.

Summary statistics find that, on average, 75.3% of firms in the sample exhibit a degree of family influence (index score  $\geq 1$ , see Table 2). This finding confirms other research contributions that demonstrate that the share of family firms among publicly listed companies is relatively high com-

**Table 2.** Family and non-family portfolios

Year	Number of Firms in each portfolio				Percent of Firms in each portfolio		
	Non-family portfolio	Intermediate portfolio	Family portfolio	Total	Non-family portfolio	Intermediate portfolio	Family portfolio
2003	37	83	26	146	25.3%	56.8%	17.8%
2004	37	95	25	157	23.6%	60.5%	15.9%
2005	41	118	24	183	22.4%	64.5%	13.1%
2006	54	144	25	223	24.2%	64.6%	11.2%
2007	60	145	32	237	25.3%	61.2%	13.5%
2008	56	153	34	243	23.0%	63.0%	14.0%
2009	58	157	28	243	23.9%	64.6%	11.5%
2010	61	152	29	242	25.2%	62.8%	12.0%
2011	59	151	25	235	25.1%	64.3%	10.6%
2012	62	140	27	229	27.1%	61.1%	11.8%
2013	56	131	23	210	26.7%	62.4%	11.0%
Mean	52.82	133.55	27.09	213.45	24.7%	62.3%	12.9%

*Note:* This table provides an overview of the portfolio sizes over the 2003–2013 period. Portfolios are formed according to the score of the family index, which, in turn, is calculated from the family variables as described in Table 1.

**Table 3.** Family influence index statistics

Index Statistic	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Number of firms	146	157	183	223	237	243	243	242	235	229	210
<b>Max Score</b>											
Family Influence Index (Total)	10	10	10	11	10	11	12	10	10	10	10
Ownership Index	3	3	3	3	3	3	3	3	3	3	3
Executive Board Index	3	3	3	3	3	3	3	3	3	3	3
Supervisory Board Index	3	3	3	3	3	3	3	3	3	3	3
Founder Presence Index	3	3	3	3	3	3	3	3	3	3	3
<b>Average Score (Mean)</b>											
Family Influence Index (Total)	4.21	4.14	4.04	3.98	4.00	4.03	3.91	3.81	3.77	3.72	3.65
Ownership Index	1.67	1.68	1.69	1.57	1.58	1.64	1.63	1.60	1.58	1.57	1.56
Executive Board Index	0.92	0.88	0.84	0.85	0.85	0.83	0.76	0.74	0.71	0.73	0.71
Supervisory Board Index	0.60	0.58	0.56	0.55	0.59	0.57	0.58	0.57	0.55	0.54	0.51
Founder Presence Index	1.08	1.06	1.00	0.96	0.95	0.94	0.90	0.87	0.88	0.85	0.82

*Note:* This table provides summary statistics on the family influence index and its four partial indices 1) Ownership, 2) Management participation (via Executive Board), 3) Control (via Supervisory Board), and 4) Founding Family Presence over time. Table 1 gives detailed information on the construction of each index.

<sup>6</sup> <https://www.wiwi.hu-berlin.de/de/professuren/bwl/bb/daten/fama-french-factors-germany/fama-french-factors-for-germany>



pared to that in other European countries (Faccio & Lang, 2002; Barontini & Caprio, 2006; Andres, 2008; Achleitner et al., 2009). For firms that exhibit family influence, the median ownership share is at least 25% (ownership index score of 2). The average level of family involvement overall (total index score) decreased from 4.2 in 2003 to 3.7 in 2013. Moreover, in 50% of the sample firms that exhibit family influence, the founder or founding family still held more than a 25% ownership stake, or held a position on the executive or supervisory board. These statistics support the assumption that corporate governance in these firms is shaped significantly by members of a shareholding family throughout all governance bodies covered under the German corporate law. The sample also confirms other studies that find that members of shareholder families in Germany are often engaged in executive or supervisory boards (Andres, 2008; Achleitner et al., 2009, 2019).

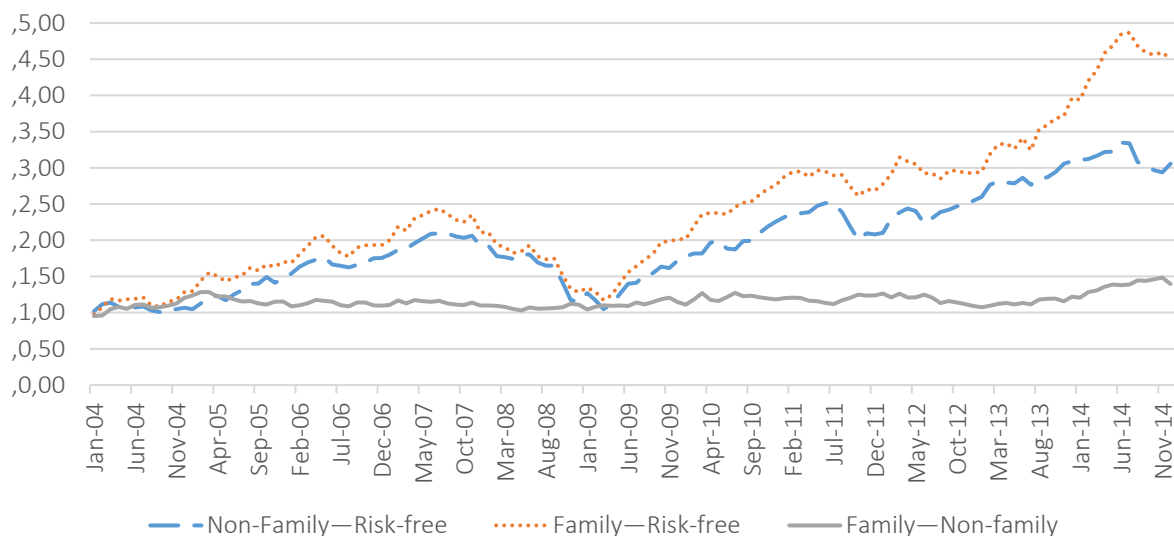
The study notes that some firms on the German CDAX are very large in size and constitute a significant fraction of market capitalization. Hence, applying equally-weighted portfolios and value-weighted portfolios may prevent results from being skewed due to these large-cap firms (Corstjens et al., 2006; Eugster & Isakov, 2019). Moreover, firms without family shareholders are significantly larger in terms of market capitalization than family firms (see Appendix A). This

finding affirms the value of using both equally and value-weighted approaches in modeling portfolios.

Figure 1 and Figure 2 plot the portfolio returns over time. The cumulative buy-and-hold return of family portfolios (less risk-free returns) is higher than that for non-family portfolios for equally-weighted, as well as for value-weighted portfolios and throughout the entire sample period. This result is comparable to studies of Achleitner et al. (2009, 2019) who find similar higher cumulative returns of family firms in Germany.

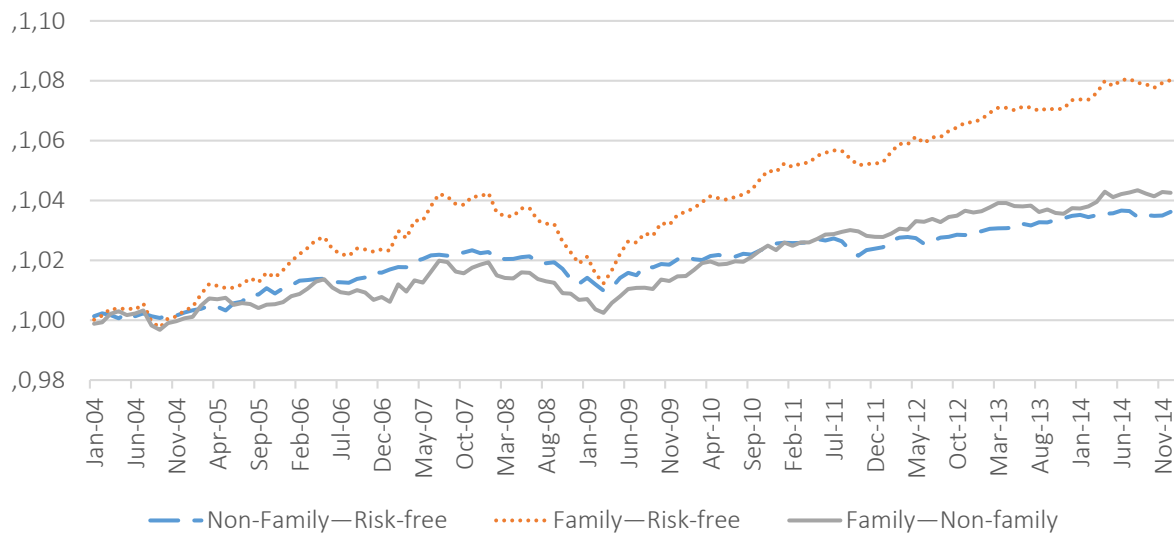
A comparison of operative performance variables such as Return on Assets (ROA) or Return on Equity (ROE) does not reveal a consistent and significant difference between family portfolios and non-family portfolios (see Appendix B). Among other financial measures, significant differences can be primarily found in size (market capitalization and total assets). The four-factor model employed in this study controls for size effects via the momentum effect (WML) and the size factor (SMB). In addition, test statistics reveal that firms in family portfolios are found to be less leveraged than non-family firms, which confirms the findings of other authors on Germany (Schmid, 2013; Ampenberger et al., 2013; Motylska-Kuzma, 2017).

However, there are several reasons consistent with the above-cited literature suggesting that govern-



Note: The figure shows cumulative returns of the family firm portfolio, the non-family firm portfolio and the return on a zero-investment portfolio that is long in the family firm portfolio and short in the non-family firm portfolio for equally weighted portfolios for 2004–2014. The portfolios are updated annually with the last update in 2013.

**Figure 1.** Equally weighted portfolios (buy-and-hold returns)



Note: The figure shows cumulative returns of the family firm portfolio, the non-family firm portfolio and the return on a zero-investment portfolio that is long in the family firm portfolio and short in the non-family firm portfolio for value-weighted portfolios in the period 2004–2014. The portfolios are updated annually with the last update in 2013.

**Figure 2.** Value weighted portfolios (buy-and-hold returns)

ance could matter for firm performance. Valuation effects arising from the acquisition of minority and majority stakes, for instance, show that share prices adjust quickly to relevant changes in corporate governance (e.g., Drees et al., 2013; Mietzner & Schiereck, 2016; Mietzner & Schweizer, 2014). Thus, “corporate governance matters for firm performance” (Gompers et al., 2003) and this association is reflected in equity prices.

This reasoning is also true for long-term performance differences between family and non-family firms, assuming that corporate governance in general, but the ability and motivation of specific shareholders to directly influence corporate policy, in particular, play a role but are not directly reflected in stock prices (Gompers et al., 2003; Bebchuk et al., 2009). As differences in long-term realized returns may be propelled by different risk factors or market sentiment, the study uses a four-factor model to examine the long-term cross section of stock returns on a risk-adjusted basis. Specifically, this model controls for different exposures to systematic risk (market risk premium), as well as company size (size factor), value characteristics (return on a book-to-market factor), and market sentiment (momentum factor). Analogous to Gompers et al. (2003), it is assumed that if the family firm portfolio differs significantly from the non-family firm-portfolio in these factors, long-lasting return drifts can be attributed, at least

in part, to specific risk characteristics of family firms and non-family firms. Then again, once the study controls for specific risk and market characteristics, differences in long-term performance can to some extent be attributed to differences in governance characteristics.

### 3.2. Stock return regression

Table 4 presents the results on the four-factor model estimation. The returns are generally driven by the relative market portfolio performance, as well as by size. Regarding abnormal returns, the estimations for family portfolios and non-family portfolios exhibit significantly positive excess returns (columns (2)-(3)). A zero-investment strategy long on family firms and short on non-family firms continues to yield a 0.50% positive abnormal return that is significant at the 10% level (column (4)). This equals an annualized excess return of 6.00%.

To control for any impact of small-cap firms, the study next re-estimates the four-factor model with value-weighted portfolios (Eugster & Isakov, 2019). As column 7 (Table 4) shows, the results for alpha report a 0.04% positive abnormal monthly return that is significant at the 1% level going long the family firm-portfolio and short the non-family firm-portfolio. Hence, the four-factor models widely confirm the return performances suggested

**Table 4.** Four-factor model

	Equally-weighted portfolios			Value-weighted portfolios		
	Non-family-Risk free	Family-Risk free	Family-Non-family	Non-family-Risk free	Family-Risk free	Family-Non-family
Alpha	0.009** (2.042)	0.014*** (3.16)	0.005* (1.752)	-0.001*** (-7.631)	-0.001*** (-3.057)	0.0004*** (2.776)
$R_m - R_f$	0.346*** (3.368)	0.295*** (2.732)	-0.051 (-0.684)	0.016*** (4.192)	0.019*** (3.065)	0.003 (0.658)
SMB	0.496*** (3.458)	0.485*** (3.219)	-0.011 (-0.106)	0.02*** (3.644)	0.022** (2.589)	0.002 (0.453)
HML	0.266 (1.652)	0.098 (0.578)	-0.168 (-1.434)	0.009 (1.46)	0.005 (0.529)	-0.004 (-0.619)
WML	-0.046 (-0.484)	-0.134 (-1.352)	-0.088 (-1.284)	0.001 (0.235)	-0.008 (-1.486)	-0.009** (-2.576)
N	132	132	132	132	132	132
$R^2$	14.20%	13.22%	2.76%	15.87%	13.40%	7.32%
Adj. $R^2$	11.50%	10.49%	-0.30%	13.22%	10.67%	4.40%

Note: This table reports the regression results of the four-factor model for equally value-weighted non-family and family portfolios. Regressions cover the 2003 to 2013 period. Row 2 shows the specification of the dependent variable, i.e. returns on a zero investment strategy, in non-family and family portfolios, as well as going long in the family firm-portfolio and short in the non-family firm-portfolio. Portfolio returns are regressed on the market-portfolio return less the risk-free return rate ( $R_m - R_f$ ), zero-investment benchmark-factors for size (Small Minus Big/SMB) and book-to-market-value (High Minus Low/HML), and the momentum effect (Winners Minus Losers/WML). Factor-specific data on the German stock market come from the website of Prof. Richard Stehle. Significance at the 10% level, 5% level, and 1% level is indicated by \*, \*\*, and \*\*\*, respectively. Test statistics are in parentheses.

by the descriptive statistics. Portfolios with a significant corporate governance influence of families yield annualized excess returns between 0.48% (value-weighted) and 6.00% (equally-weighted).

### 3.3. Discussion

The model's results are consistent with those of other authors who find that 1) ownership structure and concentration influence stock market returns (Cella, 2009), and 2) family ownership is associated with higher stock returns (see Eugster & Isakov, 2019; Cella, 2009). The estimated annualized abnormal return (equally-weighted) is even higher than the excess return of 3.6% found by Cella (2009) for the period of 1993–2006 in Germany. The findings are also compatible with those of Schüler et al. (2019), who discover higher abnormal returns for acquisitions of family firms than for private equity firms. This suggests that market participants regard family business investors as more capable of managing and controlling acquired firms.

The findings further suggest that stock market return differences between family firms and

non-family firms are due to perceptions of the differences in corporate governance systems between the two portfolios. The construction of the family portfolio containing firms with a minimum index score of 7 implies a severe degree of family influence throughout the firm's corporate governance bodies, as proscribed by German law<sup>7</sup>. Hence, the paper assumes that the market will view this high level of influence as beneficial for corporate governance.

Shareholding families are often poorly diversified (Anderson & Reeb, 2003b), since they are long-term-oriented in their shareholder positions (Anderson & Reeb, 2003a), as well as reputation-sensitive (Anderson et al., 2003; Tong, 2008). They are thus strongly incentivized to monitor corporate policies and performance. Given families' superior firm knowledge (founding families or founders are found to be present in 50% of the family firms), as well as their regulation-driven presence on executive and supervisory boards (in the case of Germany), the corporate governance system of these firms is assumed to be highly effective.

7 The study also ran four-factor models long on family portfolios with only a medium family influence on corporate governance (index value >1 and <7), and short on non-family portfolios. Neither the equally nor value-weighted model specifications revealed any significant excess returns (results available upon request).

## CONCLUSION

The purpose of this study is to explore the relationship between the influence of family shareholders on the corporate governance system of the firms they are invested in and stock market returns. In an environment of low shareholder protection, like in Germany, more concentrated ownership structures follow the increasing effectiveness of large shareholders in mitigating agency conflicts. However, blockholders vary in their effectiveness, and capital markets react differently depending on shareholder type. Employing listed German corporations and a replicable index of family influence on corporate governance in these firms, the results of the study show that portfolios with family firms generate significant abnormal returns in comparison to portfolios with non-family firms (annualized abnormal return: 0.48%-6.00%). In conclusion, the results show that, due to their monitoring incentives and long-term orientation, family blockholders are highly successful in reducing agency problems, while offering superior firm knowledge. Under German corporate law, corporate control must be carried out in various governance bodies. Families are often present in these bodies, thereby creating a significant family-shaped form of corporate governance. The paper suggests that the specific family-characterized governance systems of firms in family portfolios are beneficial for the monitoring and controlling of these firms. Regarding practical implications, these findings suggest that the engagement of family investors may serve as a signal to smaller investors, for whom the ex-ante analysis and ex-post monitoring of investments is relatively costly. Doing so, family blockholders may help to reduce information asymmetries for minority investors or single stockholders (e.g., for individual retirement provisions), since the wealth of family investors is largely tied up in the firm and they are strongly incentivized to exercise monitoring and control.

## AUTHOR CONTRIBUTIONS

Conceptualization: Fabio Franzoi, Mark Mietzner.

Data curation: Fabio Franzoi, Mark Mietzner.

Formal analysis: Fabio Franzoi, Mark Mietzner.

Methodology: Fabio Franzoi.

Supervision: Mark Mietzner.

Writing – original draft: Fabio Franzoi.

Writing – review & editing: Fabio Franzoi & Mark Mietzner.

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## APPENDIX A

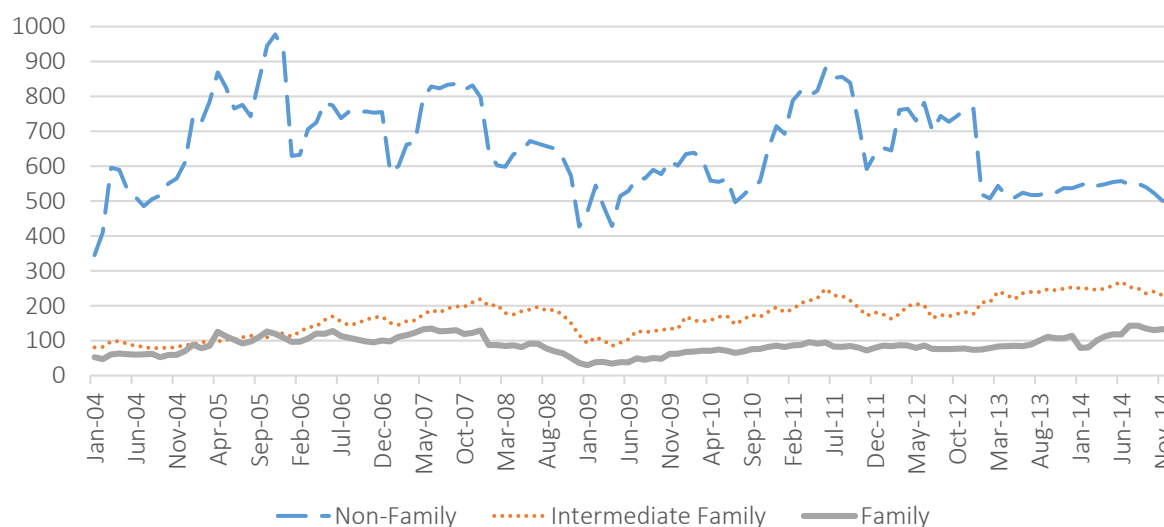


Figure A1. Market capitalization (in mEUR)

## APPENDIX B

Table B1. Comparison of operating performance per year

Variable	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>No-family influence</b>											
Total Assets (in mEUR)	845.4	1,184.6	986.3	438.6	392.6	490.1	477.7	522.0	814.8	594.4	657.0
Market Capitalization (in mEUR)	324.7	539.1	558.7	497.1	455.6	355.7	444.0	761.2	586.6	386.6	1,020.2
ROA (in %)	1.24	3.48	4.86	4.87	5.29	4.74	2.31	4.97	5.17	5.23	5.30
ROE (in %)	2.22	7.74	9.57	10.75	11.67	11.07	5.93	10.32	10.81	11.41	9.96
Equity in % of Total Assets	31.66	33.62	38.03	38.91	38.02	34.34	36.42	37.89	38.08	37.12	39.03
Current Ratio	1.62	1.80	1.57	1.59	1.55	1.37	1.40	1.48	1.48	1.40	1.66
Sales growth (in %)	1.11	4.36	5.99	11.97	7.83	6.55	-10.07	8.85	10.92	5.35	0.74
Market-to-Book Ratio	1.07	1.33	1.42	1.80	1.86	2.04	1.09	1.26	1.55	1.28	1.48
Dividends per Share (in EUR)	0.24	0.31	0.46	0.41	0.33	0.39	0.13	0.37	0.39	0.32	0.38
<b>Intermediate family influence</b>											
Total Assets (in mEUR)	142.7	139.5	149.4	163.0	174.6	181.9	202.9	203.3	197.0	201.4	255.7
Market Capitalization (in mEUR)	65.3	71.1	131.0	119.3	149.6	100.8	113.9	141.7	152.4	167.8	217.6
ROA (in %)	3.21	4.07	4.28	6.54	6.29	5.00	3.82	4.78	5.62	5.37	5.34
ROE (in %)	6.05	9.37	9.40	13.89	12.24	10.79	6.27	10.74	10.90	10.18	11.53
Equity in % of Total Assets	38.79	40.30	45.48	46.51	42.46	42.17	42.03	45.95	48.69	47.37	45.89
Current Ratio	1.76	1.67	1.64	1.68	1.55	1.61	1.70	1.71	1.68	1.65	1.70
Sales growth (in %)	-1.46	4.46	8.30	11.26	9.12	6.10	-4.97	9.03	7.80	6.64	2.22
Market-to-Book Ratio	1.07	1.52	1.30	1.72	1.63	1.79	1.08	1.25	1.59	1.33	1.47
Dividends per Share (in EUR)	0.11	0.08	0.10	0.13	0.14	0.10	0.12	0.20	0.21	0.27	0.25
<b>High family influence</b>											
Total Assets (in mEUR)	125.6	118.0	128.4	118.2	111.9	73.0	60.0	86.3	110.2	147.2	120.1
Market Capitalization (in mEUR)	45.7	56.7	51.1	76.1	44.6	26.0	46.6	66.4	71.3	70.9	113.4
ROA (in %)	3.36	4.63	6.65	7.08	6.89	7.01	5.51	5.73	5.64	4.81	4.26
ROE (in %)	4.92	7.85	11.57	11.49	15.19	12.80	9.46	10.43	10.07	9.39	7.45
Equity in % of Total Assets	50.96	56.00	54.65	56.82	54.82	49.60	54.60	54.81	54.03	53.01	51.38
Current Ratio	1.66	1.85	1.98	1.92	2.06	1.69	2.17	2.06	1.87	2.17	1.55

**Table B1 (cont.).** Comparison of operating performance per year

Variable	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Sales growth (in %)	3.97	8.69	6.29	9.56	8.15	6.00	-2.42	11.76	10.66	4.53	5.69
Market-to-Book Ratio	0.90	1.46	1.42	1.38	1.61	1.86	1.18	1.40	2.41	1.73	1.47
Dividends per Share (in EUR)	0.00	0.00	0.00	0.12	0.10	0.15	0.13	0.27	0.23	0.17	0.20
<b>No-Family – Family: z-Score</b>											
Total Assets	2.814***	3.935***	3.447***	2.421**	1.842*	2.655***	2.257**	2.986***	3.129***	2.998***	2.042**
Market Capitalization	2.499**	3.234***	2.992***	2.127**	1.897*	2.398**	2.152**	2.758***	2.905***	2.300**	1.915*
ROA	-1.810*	0.227	-0.051	-1.337	-0.541	-0.751	-1.783*	-0.278	-0.625	0.324	-0.368
ROE	-1.367	0.522	0.222	-1.066	0.137	0.214	-0.806	0.319	-0.015	0.785	-0.035
Equity % Total Assets	-0.646	-1.701*	-1.669*	-2.024**	-1.293	-2.509**	-1.960**	-2.428**	-2.275**	-2.070**	-1.146
Current Ratio	-0.180	0.509	-0.400	-0.701	-0.417	-0.989	-1.287	-1.762*	-1.715*	-1.382	-0.629
Sales growth	0.272	-0.408	-1.132	-0.578	-1.244	0.299	-1.956*	0.519	1.731*	-1.081	-1.197
Market-to-Book Ratio	-0.266	-0.648	0.017	-0.074	0.979	0.768	-0.214	0.525	-0.298	-0.530	0.525
Dividends per Share	0.517	1.528	2.802***	1.892*	1.809*	1.929*	0.380	1.210	1.437	0.788	1.078

*Note:* This table presents the median of selective financial figures of firms in the portfolios with no-family influence, intermediate- and high family influence, as well as the results of the test statistics on the medians of firms in the non-family vs. family portfolio (Wilcoxon rank test). \*\*\*, \*\*, and \* indicate statistical significance at the 1%, 5%, and 10% levels, respectively.