Universität Trier

Foundation-owned firms in Germany:

The impact of foundation-ownership on firm performance and corporate governance challenges

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Preface

Foundation-owned firms have become increasingly popular in Germany and are a very attractive alternative to traditional succession solutions for many entrepreneurs. Due to the diverging goals pursued by foundations and firms, a large number of potential conflicts and challenges arise which need to be solved by both the foundation and the firm. This dissertation provides insights into the complex world of foundation-owned firms and is intended to help to better understand and apply this type of firm.

My dissertation could not have been realized without the help of my supervisors, my colleagues, my family and friends. I would like to take this opportunity to thank those who helped me to realize this challenging project.

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List of abbreviations

AAR	Average abnormal returns
AR	Abnormal return
ATX	Austrian traded index
BAFIN	Bundesanstalt für Finanzdienstleistungsaufsicht (Federal Financial Supervisory Authority)
BMP	Standardized cross-sectional test of Boehmer, Musumeci and Poulsend
CAAR	Cumulative average abnormal returns
CEO	Chief executive officer
coef.	Coefficient
DACH	Deutschland / Austria / Confoederatio Helvetica (Germany / Austria / Switzerland)
DAX	German stock index
Ed./ eds.	Editor / editors
ER	Expected returns
et al.	Et alii (and others)
etc.	Et cetera (and so on)
e.g.	Exempli gratia (for example)
F-PEC	Family-Power, Experience and Control
GS	Generalized Sign test (non-parametric test)
IATX	Immobilien Austrian Traded Index
IFRS	International Financial Reporting Standards
M&A	Mergers and acquisitions
MDAX	German stock index (Mid- Cap-DAX)
N	Sample size
n.a.	Not available

NACE	Nomenclature statistique des activités économiques dans la Communauté européenne (statistical classification of economic activities in the European Community)
Obs.	observations
P	Significance level
R&D	Research and development
ROA	Return on assets
ROE	Return on equity
ROI	Return on investment
ROS	Return on sales
R square	Measure of statistical fit
SDAX	German stock index (Small-Cap-DAX)
SLI	Swiss Leader Index
SMI	Swiss Market Index
SPI	Swiss Performance Index
Std. err.	Standard error
TecDAX	German stock index
US	United States
VIF	Variance inflation factor
Vol.	Volume

Zusammenfassung

Stiftungsunternehmen sind Unternehmen, die sich ganz oder teilweise im Eigentum einer gemeinnützigen oder privaten Stiftung befinden. Die Anzahl an Stiftungsunternehmen in Deutschland ist in den letzten Jahren deutlich gestiegen. Bekannte deutsche Unternehmen wie Aldi, Bosch, Bertelsmann, LIDL oder Würth befinden sich im Eigentum von Stiftungen. Einige von ihnen, wie beispielsweise Fresenius, ZF Friedrichshafen oder Zeiss, sind sogar an der Börse notiert. Die Mehrzahl der Stiftungsunternehmen entsteht dadurch, dass Unternehmensgründer oder Unternehmerfamilien ihr Unternehmen in eine Stiftung einbringen, anstatt es zu vererben oder zu verkaufen.

Die Motive hierfür sind vielfältig und können familiäre Gründe (z. B. Kinderlosigkeit, Vermeidung von Familienstreit), unternehmensbezogene Gründe (z. B. Möglichkeit der langfristigen Planung durch stabile Eigentümerstruktur) und steuerliche Gründe (Vermeidung oder Reduzierung der Erbschaftssteuer) haben oder sind durch die Person des Gründers motiviert (Möglichkeit, das Unternehmen auch nach dem eigenen Tod über die Stiftung noch weiterhin zu prägen). Aufgrund der Tatsache, dass Stiftungsunternehmen zumeist aus Familienunternehmen hervorgehen, wird in der Forschung häufig nicht zwischen Familien- und Stiftungsunternehmen differenziert. Aus diesem Grund werden in dieser Dissertation zu Beginn anhand des Drei-Kreis-Modells für Familienunternehmen die Unterschiede zwischen Stiftungs- und Familienunternehmen dargestellt. Die Ergebnisse zeigen, dass nur eine sehr geringe Anzahl von Stiftungsunternehmen eine große Ähnlichkeit zu klassischen Familienunternehmen aufweist. Die meisten Stiftungsunternehmen unterscheiden sich zum Teil sehr stark von Familienunternehmen. Diese Ergebnisse verdeutlichen, dass Stiftungsunternehmen als separates Forschungsfeld betrachtet werden sollten.

Da innerhalb der Gruppe der Stiftungsunternehmen ebenfalls eine starke Heterogenität herrscht, werden im Anschluss Performanceunterschiede innerhalb der Gruppe der

Stiftungsunternehmen untersucht. Hierzu wurden die Daten von 142 deutschen Stiftungsunternehmen für die Jahre 2006-2016 erhoben und mittels einer lineareren Regression ausgewertet. Die Ergebnisse zeigen, dass zwischen den verschiedenen Typen signifikante Unterschiede herrschen. Unternehmen, die von einer gemeinnützigen Stiftung gehalten werden, weisen eine signifikant schlechtere Performance auf, als Unternehmen die eine private Stiftung als Shareholder haben.

Im nächsten Schritt wird die Gruppe der börsennotierten Stiftungsunternehmen untersucht. Mittels einer Ereignisstudie wird getestet, wie sich die Stiftung als Eigentümer eines börsennotierten Unternehmens auf den Shareholder Value auswirkt. Die Ergebnisse zeigen, dass eine Anteilsverringerung einer Stiftung einen positiven Einfluss auf den Shareholder Value hat. Stiftungen werden vom Kapitalmarkt dementsprechend negativ bewertet. Aufgrund der divergierenden Ziele von Stiftung und Unternehmen birgt die Verbindung zwischen Stiftung und Unternehmen potentielle Konflikte und Herausforderungen für die beteiligten Personen. Mittels eines qualitativen explorativen Ansatzes, wird basierend auf Interviews, ein Modell entwickelt, welches die potentiellen Konflikte in Stiftungsunternehmen anhand des Beispiels der Doppelstiftung aufzeigt.

Im letzten Schritt werden Handlungsempfehlungen in Form eines Entwurfs für einen Corporate Governance Kodex erarbeitet, die (potentiellen) Stifterinnen und Stiftern helfen sollen, mögliche Konflikte entweder zu vermeiden oder bereits bestehende Probleme zu lösen.

Die Ergebnisse dieser Dissertation sind relevant für Theorie und Praxis. Aus theoretischer Sicht liegt der Wert dieser Untersuchungen darin, dass Forscher künftig besser zwischen Stiftungs- und Familienunternehmen unterscheiden können. Zudem bringt diese Arbeit den aktuellen Forschungsstand zum Thema Stiftungsunternehmen weiter. Außerdem bietet diese Dissertation insbesondere potentiellen Stiftern einen Überblick über die verschiedenen Ausgestaltungsmöglichkeiten und die Vor- und Nachteile, die diese Konstruktionen mit sich

bringen. Die Handlungsempfehlungen ermöglichen es Stiftern, vorab potentielle Gefahren erkennen zu können und diese zu umgehen.

1. Introduction

1.1 Motivation and research goals

Foundation-owned firms are companies wholly or partly owned by a charitable or private foundation. The number of foundation-owned firms in Germany has increased significantly in recent years (Institut für Demoskopie Allensbach 2012). Many well-known German firms, such as Aldi, Bosch, Bertelsmann, LIDL or Würth, are owned by foundations. Some of them, such as Fresenius, ZF Friedrichshafen or Zeiss, are even listed on the stock exchange. The majority of foundation-owned firms emerge when firm founders or entrepreneurial families transfer their business to a foundation instead of inheriting or selling it. The motives for this are manifold and may be family reasons (e.g. childlessness, avoidance of family disputes), firm-related reasons (e.g. possibility of long-term planning through stable ownership structure) and tax reasons (e.g. avoidance or reduction of inheritance tax) or motivated by the founder’s personal wishes and the possibility to continue to shape the firm through the foundation even after one's own death. Thus, foundation-owned firms mostly originate from family businesses. Though in some cases, they differ markedly from family businesses, since the shares (at least in large parts) now belong to the foundation.

Although the foundation acts as a blockholder, and according to the literature has a high interest in controlling the management (Jensen and Meckling 1976; Zeckhauser and Pound 1990), the reality is often different for foundation-owned firms, since the foundation does not belong to anyone and has no shareholder acting as a residual claimant. This can result in problems in monitoring the management of the firm and can increase agency costs, leading to corporate governance problems and poorer firm performance.

Furthermore, the business press describes foundation-owned firms as a form of organization that pursues both self-interested and charitable goals. “Wirtschaftswoche” (2012) even calls foundation-owned firms, "good capitalists" because they rely on continuity and act in the public interest. As a result of the combination of public interest and profit orientation, foundation-owned firms often have a strong hybridity in terms of their goals, activities, structures and processes as well as in organizational culture and external perception (Achleitner and Block 2018). This hybridity can also cause certain conflicts in controlling and monitoring of the firm that do not occur in other types of companies. These critical conflicts could as well, as the lack of a residual claimant, lead to competitive disadvantages and weaker performance.

Research on foundation-owned firms is minimal. The few studies that do exist only examine the financial performance of foundation-owned firms in contrast to other types of firms. This dissertation aims to examine foundation-owned firms from various aspects of corporate governance and performance and to expand the literature on foundation-owned firms.

The first research goal is to distinguish foundation-owned firms from family firms and to identify different types of foundation-owned firms (Chapter 3). This is an important step in raising public awareness of the issue of foundation-owned firms, since society generally considers them to be family firms. However, most foundation-owned firms have significant structural differences to family firms. Hereby the dissertation contributes to the literature on family firms.

The second research goal is to investigate the performance of certain types of foundation-owned firms. As already mentioned, the existing literature has so far only examined differences in performance between foundation-owned firms and non-foundation-owned firms. In this dissertation, the performance differences between different types of foundation-owned firms are examined in a quantitative way (Chapter 4). Furthermore, the group of listed foundation-owned firms is examined in detail and the impact of foundations as shareholders on shareholder value (Chapter 5). Chapter 4 and 5 contribute to the literature on blockholder ownership and literature on foundation-owned firms.

The third research goal is to investigate the special form of "Doppelstiftung". Using a qualitative exploratory research approach, a model is developed that describes the mechanisms within foundation-owned firms that are associated with both a charitable and a private foundation. By detailed qualitative evaluation of interviews, potential conflicts resulting from this special organizational structure will be identified (Chapter 6). This study is based on property rights theory and thus contributes to the existing literature on this topic.

In addition to its theoretical relevance, this dissertation also has practical relevance, as more and more entrepreneurs are setting up a foundation, but often do not know the most effective way to, because of the myriad options they have to do so. Chapter 7 develops best practices and offers suggestions for the development of a corporate governance code for foundation-owned firms. This code provides guidelines for existing foundation-owned firms for potential founders and supports the establishment of an optimal combination between foundation and firm.

1.2 Structure of the dissertation

This dissertation comprises eight chapters. Figure 1-1 provides an overview of the structure of this dissertation.

Chapter 2 provides an overview of peculiarities of foundation-owned firms. First, it explains how foundations are established and what types of foundations exist. Subsequently, it describes how a firm can be transferred to a foundation and the different structuring options that exist. Finally, the unique characteristics of foundation-owned firms and the associated advantages and disadvantages for persons involved and for the firm are explained in more detail. This chapter is intended to give the reader a basic understanding of the subject of foundation-owned firms in order to better follow the analyses in the upcoming chapters.

Chapter 3 has two objectives. The first goal is to distinguish foundation-owned firms from family firms. Both in research and in public, foundation-owned firms are often regarded as family firms. In this chapter, based on the "three circle model for family businesses" by Tagliuri and Davis (1992) differences between foundation-owned and family firms are detected. The second goal of this chapter is to identify different types of foundation-owned firms. These are also identified on the basis of the "three circle model". The results are summarized in a matrix, which shows that a very small proportion of foundation-owned firms are similar to family businesses. However, most of the foundation-owned firms are very different from classic family firms and this perception contributes to research on family businesses.

Chapter 4 examines performance differences within the group of foundation-owned firms. There are a few authors who compared the performance of foundation-owned firms with other types of firms (e.g. Thomsen 1996, 1999; Herrmann and Franke 2002; Thomsen and Rose 2004; Dzansi 2012 and Franke and Draheim 2015). However, no one has yet analyzed the differences between different foundation-owned firms. In this chapter, I examine whether there are significant performance differences between foundation-owned firms owned either by a charitable foundation or by a private foundation. Furthermore, differences between listed and non-listed firms and between foundation-owned firms in which the family is still active in the firm and those without family influence will be investigated. This is realized via linear regressions using common performance measures RoA, RoE, RoI and RoS as dependent variables.

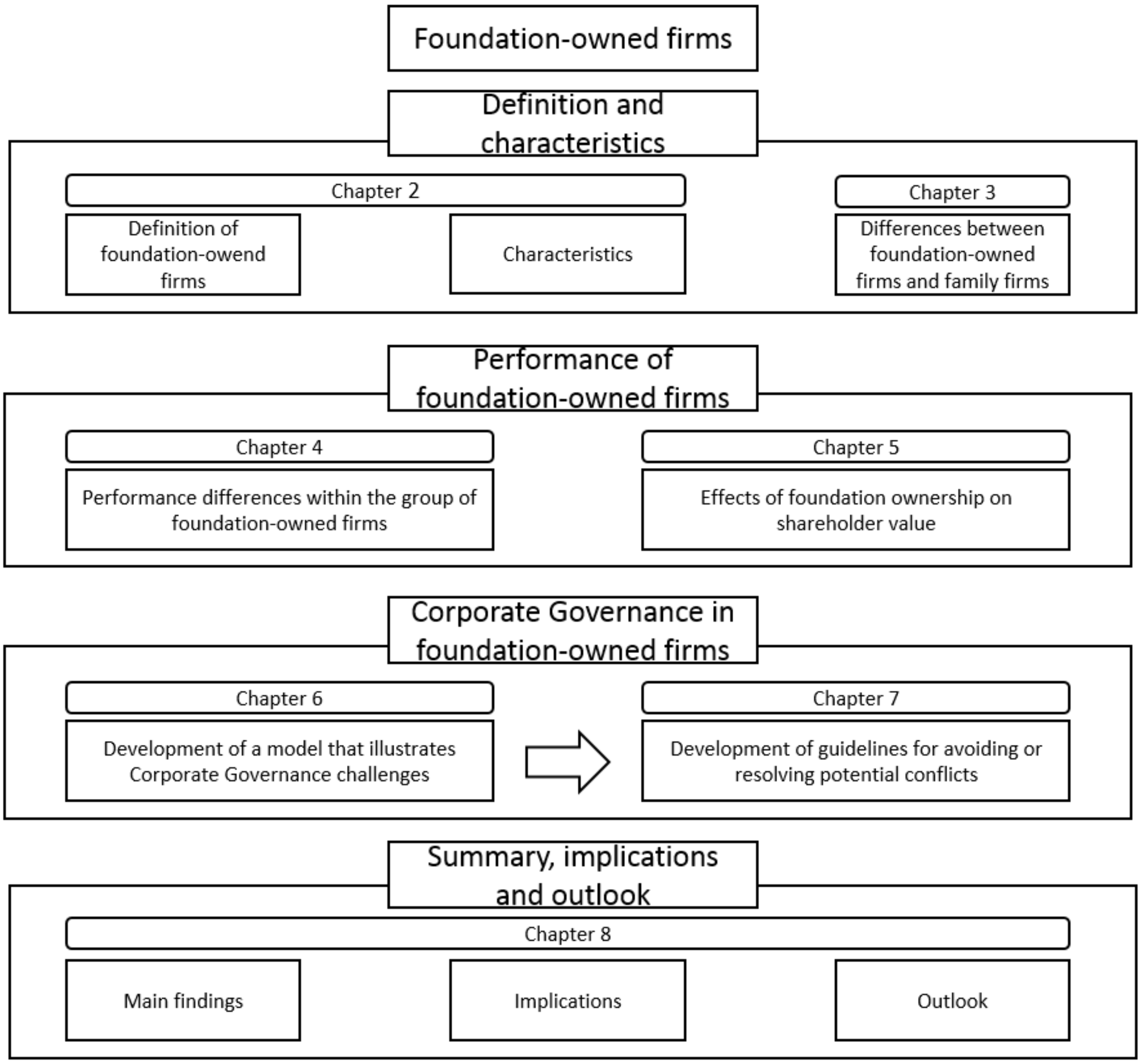
Chapter 5 focuses on listed foundation-owned firms. Most of the existing literature indicates that blockholder ownership might have a positive effect on shareholder value (Holderness and Sheehan 1988; Lewellen et al. 1985; Agrawal and Mandelker 1990; Barclay and Holderness 1990; Bethel et al. 1998; Holderness 2003). However, due to the special structure of foundation-owned firms, I assume that foundations as blockholders have a negative effect on shareholder value. This is tested by using an event study analysis. In this event study analysis, I examine whether the announcement of a foundation to increase its ownership stake in a firm has a positive or negative effect on the share price. Corresponding to this, I examined whether the announcement of the foundation to decrease its shares has a positive or negative influence. This chapter contributes to the literature on blockholder ownership and literature on foundation-owned firms.

Chapter 6 uses a qualitative research design to analyze the concept of a "Doppelstiftung", which is a specific form of foundation-owned firms. In the case of "Doppelstiftungen", the company shares are usually held by a charitable foundation, while the voting rights are mostly held by a private foundation. Based on property rights theory and based on interviews, a model was developed that represents the very special structure and distribution of tasks and property rights within the firm and illustrates the interaction between foundations and firm. The model also demonstrates potential conflicts that may arise from this structure. This chapter contributes to the literature on property rights theory and foundation-owned firms.

Chapter 7 addresses the potential conflicts identified in the previous chapters and provides guidelines and suggestions on how these conflicts can either be prevented or resolved. First, existing corporate governance codes are determined, on the basis of which an independent corporate governance code for foundation-owned firms can be drawn up. This chapter summarizes the most important aspects that contribute to avoiding conflicts in foundation-owned firms and offers concrete recommendations for founders and potential founders.

Chapter 8 concludes with a summary of the main results and discusses theoretical and practical implications. Recommendations for founders, potential founders, policy makers and family members are derived from the results. The dissertation concludes with a brief outlook on promising avenues for the future research.

Figure 1-1 Structure of the dissertation



2. Theoretical framework and definitions

2.1 Foundations

2.1.1 Definition

According to the Federal Association of German Foundations (Bundesverband Deutscher Stiftungen), there are currently 22.274 foundations with legal capacity in Germany, the majority of which are public foundations under civil law. In 2017, 549 new establishments were announced, and 95 percent of these foundations serve charitable purposes. But what exactly are foundations?

According to Wiederhold (1971), a foundation is an, "institution that has been set up to support certain purposes by using assets." They are an economic entity (Götz and Berndt 2009) that is a legally independent institution (Buerman 1998). Their main characteristic is that a foundation with legal capacity has no members, as with an association (Heinzelmann 2002) and also no shareholders, and therefore belongs to anyone or only to itself (Kronke 1988). This makes it quite different from other legal entities, like corporations. There are various reasons for setting up a classic foundation with legal capacity. In most cases, a founder intends to make a long-term philanthropic commitment and donates his or her assets to a foundation. About two thirds of the founders in Germany are private individuals, but often organizations are also active as founders (Federal Association of German Foundations 2017). Anyone who sets up a foundation is disposing of his assets forever. The Foundation invests the assets transferred in a safe and profitable manner. The profits generated in this way are spent for charitable and/or private purposes. The donated assets themselves must be maintained as the foundation's basic capital because a foundation is intended to last in perpetuity and usually cannot be dissolved (§ 80 Abs. 2 BGB). The foundation's assets may consist of cash and other assets such as real estate and securities. Company shares can also be part of the foundation's assets. These so-called foundation-owned firms are examined in this dissertation.

Foundations can be divided into various categories. I will discuss the different types of foundations in Chapter 2.1.3. First, the following chapter explains how a foundation with legal capacity can be set up generally.

2.1.2 How to establish a foundation?

For the establishment of a foundation there are only a few requirements that have to be fulfilled (Fricke 2010). The prerequisites for the establishment of a foundation with legal capacity are the foundation business and the approval of the foundation by the responsible authority of the federal state in which the foundation is to have its headquarters (cf. § 80 Paragraph 1 BGB). The foundation business is a unilateral declaration of intent in need of reception (Götz and Berndt 2009). According to § 81 section 1 BGB, it must contain the foundation charter and the founder's binding declaration to donate assets to the foundation in order to fulfil the purpose specified by the founder in the charter. Ownership of the assets is transferred to the foundation; the founder loses it. The charter is issued by the founder (cf. § 85 BGB).

The **foundation charter** is the heart of a foundation (Heinzelmann 2002). It must have the following minimum scope in accordance with § 81 section 1: Name, registered office, purpose of the foundation, foundation assets and organization of the foundation. In the individual federal state laws there are further regulations for the establishment of a foundation, which can vary from federal state to federal state (Wiederhold 1971).[1]

The name and purpose of a foundation are freely selectable and are not subject to any restrictions (Sasse 2009). The **purpose of the foundation** is often described as the most important point in its charter, since it gives the foundation identity and the foundation's assets and organization are geared to the purpose (Kronke 1988; Heinzelmann 2002). A foundation may pursue several purposes, which may be of a charitable or private nature (Fritsche and Kilian

[1] Götz and Berndt (2009) provide a summary of the key paragraphs of the respective federal state laws.

2008). The purpose of the foundation must only fulfil the condition that fulfilment is not impossible and the common good is not endangered (§78, paragraph 2 BGB). In addition, a permanent and sustainable fulfilment must be guaranteed (§81, paragraph 1 BGB), which, in contrast to association or company law, means that it is almost impossible to change the purpose of the foundation afterwards (Heinzelmann 2002).

The **foundation's assets** are the next important feature of the foundation charter. Under German law, there are no requirements or restrictions on the assets of a foundation (Kronke 1988). However, the principle of asset preservation is laid down in the federal state laws, and the financing of the foundation projects should be provided by the distributed profits of the foundation capital (v. Camphausen and Richter 2014). In addition, the boards of the foundation have to manage the assets in such a way that the purpose of the foundation is maintained. For these reasons, the foundation's assets must be appropriately chosen in proportion to the purpose of the foundation (Fritsche and Kilian 2008). These assets may consist of cash, land, securities and company shares.

The last important point is the **organization of the foundation**. The founder has the freedom to determine the organization of the foundation's structure. The only legal requirement for the organization is that a board of directors exists, regardless of its form and size (§ 81, paragraph. 1 No. 5 BGB). This can consist of any number of persons and be allocated with various tasks. In the case of larger foundations, in particular foundations that are connected to a firm, it is advisable to integrate at least one further committee into the governance of the foundation in order to ensure mutual control of the organs (Fleishman 1998). This second body can use various terms, such as a board of trustees or supervisory board. Whichever term is used is ultimately irrelevant; the respective boards' tasks can be individually defined by the founder in the foundation charter (Kronke 1988).

As there is no external control of foundations (Kennedy, Rumberg, Then 1998), and due to the fact, that supervisory organs of foundations are not legally binding, foundations are subjected to state supervision. This serves to protect the foundation from misconduct on the part of the foundation boards and to ensure that the founder's will in the foundation business is fulfilled (Heinzelmann 2002; Sasse 2009). The influence of the state foundation prospect is regulated in the respective federal state laws.

2.1.3 Types of foundations

Foundations can be divided into various categories, such as by their functioning in grant-making foundations and operational foundations (Wanner 1999), by their purpose in charitable and private foundations (Schurr, F. A. 1998) or by their legal capacity (Sasse, C. 2010). As this dissertation deals with the connection between foundations and firms, some forms of foundations, such as state or ecclesiastical foundations, are not relevant. For the following chapters, the distinction between charitable and private foundations is particularly relevant, which is why I will only discuss the distinction between these two types of foundations in more detail later. However, it should be noted in advance that foundations under private and public law should not be mistaken for private and charitable foundations. The legal aspect refers to the way in which the foundation was created, i.e. whether or not the foundation underwent a public administrative act when it was created (Rösner 2011).

The distinction between private and charitable foundations, however, is related to the purpose and thus the beneficiary. As the name suggests, the charitable foundation must serve the common good. It encourages an open, generally accessible group of people and promotes the cultural, social, scientific or economic well being of the general public. A charitable foundation is nevertheless a foundation under private law, but with the addition that it pursues tax-privileged purposes within the meaning of §§5254 of the Tax Code (Abgabenverordnung AO).

A private foundation, on the other hand, serves private purposes and supports a certain group of people, such as family or employees (Rösner 2011). The most popular form of a private foundation is the family foundation, which focuses on supporting the founder's family (Brandmüller and Lindner 2004). In § 15 Section 2 AStG, family foundations are defined as foundations in which more than 50 percent of the founder, his relatives and their descendants are entitled to receive benefits or are entitled to incur expenses. § 1 Section 1 No. 4 ErbStG, in contrast, designates a family foundation as a foundation that has been established essentially in the interest of one or more specific families (Fricke 2010). Accordingly, there is no common definition. In this work, the family foundation is defined as a foundation thats main purpose is to provide for the founder's family and of which the majority of the funds will be spent on the family. There are many different types of foundations. However, the most important distinguishing feature in relation to a corporate relationship is the orientation of the purpose of the foundation. In the following chapters, we will focus on the differences between firms owned either by a private (family) foundation or a charitable foundation.

2.2 Foundation-owned firms

2.2.1 Definition

It is not easy to find a definition for the connection between foundations and firms that covers all structures and application possibilities (Thomsen 2017). These various ways of structuring the connection between the foundation and the firm can be traced back to § 80, Section 2, BGB (German Civil Code). As long as the purpose of the foundation does not endanger the common good, all foundations are permitted, including all foundations associated with a firm (Richter 2004). In the literature, the authors use different terms for the connection between foundations and firms, although they all describe the same organizational form. In Germany, there are terms such as, "Stiftungsunternehmen" (Stickrodt 1960), "unternehmensbezogene Stiftung" (Kluth 2011), "unternehmensnahe Stiftung" (Mattner 2004), "Unternehmensstiftung" (Goerdeler and Ulmer 1963), "Unternehmensträgerstiftung" (Heuel 2000), "gewerbliche Stiftung" (Brandmüller and Lindner 2004) and "unternehmensverbundene Stiftung" (Berndt 2006). On an international level, foundation-owned firms are also called industrial foundations (Thomsen 2017). Legally, these different terms have the same meaning and make no difference (Engel 2009, Strachwitz 2018). In the literature, various qualitative and quantitative criteria are used to define foundation-owned firms. Stickrodt (1960) was one of the first authors on this topic. For him, a firm is only a foundation-owned firm, if the foundation holds 100 percent of the company. Thomsen (1996 and 1999) regards firms as foundation-owned firms, if the foundation holds at least 50 percent of the shares. Herrmann (1996) and Herrmann and Franke (2002) say that it is sufficient for the foundation to hold shares in a company at all, regardless of how many. Fleschütz (2009) goes a step further and defines foundation-owned firms through the influence foundations have on the firm.

This paper takes the broadest approach and defines each firm as a foundation-owned firm in which a foundation is involved as shareholder, regardless of the number of shares and influence of the foundation and regardless of the legal form of the firm.

2.2.2 How to establish a foundation-owned firm?

Foundation-owned firms most often originate in the group of family firms (Draheim 2016). There are several reasons why a founder decides to transfer his or her firm to a foundation. In addition to charitable ambitions, such as promoting science or caring for employees (Zeiter 2004), familial reasons are usually the deciding factor. For example, the founder may not have descendants and may not want to sell his firm (Thomsen 2017). Another example is when trying to avoid family conflicts in the firm's succession plan (Block and Hosseini 2017).

In principle, there are initially no special legal regulations to be observed when setting up a foundation formed to take over shares of a company. The standard rules for setting up a foundation described in Section 2.1.2 apply. The entrepreneur is free to decide whether he or she wants to establish the foundation if he or she is still alive or whether it is to be established after his or her death in the form of a testamentary disposition. An important aspect that should be considered by the (potential) founder is the regulation of inheritance. If the founder is married and the couple lives under the property status of the conquest participation, the equity securities, insofar as they have not been contributed to the marriage or accrued through inheritance, belong to the achievement of the founder's spouse and, in the event of his death, half belong to the surviving spouse (Klinkner 2017). This reduction reduces the participation allocated to the foundation as foundation assets, which entails the risk that the foundation's actual ability to influence corporate policy is no longer guaranteed. Under certain circumstances, it endangers the activities of the foundation in the sense that the foundation does not (any longer) perform its purpose in a meaningful manner, and in extreme cases cannot even arise due to original impossibility. In order to counteract such risks, spouses can establish the foundation together (Zeiter 2004). Another important point to consider before setting up the foundation is the determining of the foundation’s purpose and the structure of the firm. The founder can decide whether he or she wants to transfer the firm to a charitable or private foundation and also has a free choice of legal form. Although the procedure for setting up the foundation remains the same, the consequences for the future interaction between the foundation and the firm are different.

The various possibilities are described in the next section.

2.2.3 Types of foundation-owned firms

There are basically two different ways in which a foundation can be involved in a firm. On the one hand there is the "Unternehmensträgerstiftung", through which the foundation runs a company itself as the owner (Fritsche and Kilian 2008) and fulfils the duties of the managing director as a sole trader (Schneider 2004). On the other hand, there are "Beteiligungsträgerstiftungen". In this form, foundations hold a share in a (limited) corporation (Richter 2004). However, unlike the "Unternehmensträgerstiftung", the foundation and firm form legally separate units and different legal entities (Junck 2007).

In practice, after the restructuring of the Carl Zeiss Foundation, there are no longer any well-known "Unternehmensträgerstiftungen" in Germany (Brömmlich 2011). According to Engel (2009), the main reasons for this development are the high-liability risks and the firm's extremely close ties to the foundation charter. For this reason, this paper only considers foundations that have a shareholding interest. I include all firms in which a foundation is a shareholder, irrespective of the number of shares and the purpose of the foundation. There is no unified structure of "Beteilungsträgerstiftungen" (now called foundation-owned firms), as each link between foundation and firm must be individually tailored. This high degree of flexibility in structure is the reason for the popularity of this way of connecting foundations and firms (Sasse 2009). As previously explained, foundations can hold shares in companies of any legal form. They can be partners in a limited liability firm or a joint-stock company. The main difference is not the legal form of the company, but the purpose of the foundation. Both charitable and private foundations can be shareholders. The founder's decision on which legal form to choose depends both on his family status and on his or her personal goals for the firm. While a private foundation ensures that the family and, in some cases, the family's influence on the firm is secured for the future, a charitable foundation often excludes the family completely from the business of the firm. In traditional foundation-owned firms, the foundation functions as a regular shareholder with all rights and obligations associated with this position. The foundation thus receives a dividend payment from firm profits in order to fulfil its private or charitable purposes and exercise its control rights over management. There are two widespread special forms of investment carrier foundations: “Doppelstiftung” (Schuck 2009), and Stiftung & Co. KG.

Doppelstiftung: In the case of a "Doppelstiftung", two or more legally separate foundations are used as owners of the firm. In general, the charitable, tax-privileged foundation holds most of the capital shares of the company, but only a very small proportion of the voting rights. A private (family) foundation often holds only a small percentage of the capital shares, but instead holds the majority of the voting rights (Kögel and Berg 2011). Through this constellation, charitable goals can be pursued without neglecting the economic goals (Fleschutz 2009). Robert Bosch GmbH and Mahle GmbH are well-known examples of the "Doppelstiftung" model. The profit participation rights may also be distributed disproportionately within the scope of what is permissible for tax purposes. Corporate profits distributed to the charitable foundation are subject to the requirement of timely use of funds, and may not be retained at the foundation level. In order to avoid an excessive distribution to the charitable foundation, the family foundation with its high proportion of voting rights can also work towards a high level of retention at firm level and strengthen the operative company (Kögel and Berg 2011). However, this also reduces the amount of firm profit that is distributed to the family foundation. This makes it clear that this model has potential for conflicts. These are examined in detail in Chapter 6.

Stiftung & Co. KG: The Stiftung & Co. KG is a limited partnership with a foundation as general partner that acts as the management of the firm (Rösner 2011). Well-known examples are the Diehl Stiftung & Co. KG and the Lidl Stiftung & Co. KG. As the foundation is managing the firm in accordance with § 164 HGB, the remaining shareholders only assume the role of limited partners. This form is mainly used when the founder is still alive. After the founder's death, conflicts can also arise as a result of this construction. The fact that in the data used in this dissertation, the founders in foundation-owned firms that set up a Stiftung & Co. KG have chosen as their legal form are still alive, this special case is not considered separately in this work in contrast to the "Doppelstiftung".

In the following chapter, the advantages and disadvantages of foundation-owned firms in comparison to other types of companies are explained.

2.3 Advantages and disadvantages of foundation-owned firms

2.3.1 Advantages

This chapter explains the advantages of foundation-owned firms in contrast to other types of firms. These advantages are developed from both the founder’s point of view and the firm’s point of view.

Founder: The main advantage for the founder when transferring the firm to a foundation is that the preservation of the firm is secured for eternity according to his or her wishes (Draheim 2016). This advantage is independent of whether it is a charitable or a private foundation. The founder thus builds a "monument" that remains forever. In setting up a charitable foundation, the founder becomes a benefactor for the general public and can pursue social purposes, such as research, science or regional support, and help people.

Another advantage for the founder is that he or she can avoid family conflicts by setting up a foundation (Block and Hosseini 2017). Disputes over inheritance and succession in firms can be avoided, as potential conflicts can be prevented by a clear regulation in the foundation charter. This applies, in particular, to future generations. Another advantage is that the founder’s family is provided for. In a family foundation, the family as the beneficiary will benefit from the firm's dividend. It can be precisely regulated which family members or tribes benefit from the foundation and in what form. These benefits can be regular payments or one-off payments for something specific, like education. This can also prevent their living a wasteful lifestyle. If the founder has no descendants, the foundation also offers the advantage that the firm will continue to be run according to his or her wishes.

Firm: The biggest advantage from a firm perspective is independence from the capital market. There are no greedy shareholders who insist on the highest possible dividend. Therefore, management is relieved of the pressure to achieve high successes in the short term. The foundation as a modest shareholder is contented with a low dividend.[2] It only needs enough money to fulfil its purposes. The remaining profit can be held in the firm and invested in R&D, for example. This enables foundation-owned firms to plan for the long term and gain a competitive advantage (Franke and Draheim 2015). An advantage of a non-profit foundation is that it enjoys a good societal reputation. This could have a positive effect on customers, as they feel good when the money for a purchased product is partly used for the public good. One advantage the firm gets from a private foundation is that family members are active in the foundation, and are still close enough to the firm to potentially be available as advisors or for representative tasks.

2.3.2 Disadvantages

This chapter explains the disadvantages of foundation-owned firms in contrast to other types of firms. These are developed from the point of view.

Founder: From the founder's point of view, there are hardly any disadvantages when transferring his or her firm to a foundation. As already mentioned, family conflicts can be avoided by setting up a foundation. However, it is possible that a family member might be upset because he might have wished to take over the firm and now feels left out. A well-known

[2] See table A1 in the appendix

example of this is the company, Playmobil. The founder, Horst Brandstetter, put his firm into a foundation for fear that if his son was his successor, he would make too many changes to the firm. Interviews show that the son was disappointed with this decision. When setting up a charitable foundation, the heirs could also sue for more money, and the share capital might no longer be sufficient to set up a foundation. It is also difficult for the founder to formulate the foundation charter in such a way that the firm will still be competitive in 100 years' time, since political or technological changes could require a rethinking.

Firm: The main disadvantage from the firm's point of view is that the company may not be able to react adequately to technological, political or economic changes and would no longer be competitive. This can happen if the foundation forms standards of operation that lack flexibility. Under these circumstances, management must adhere to the provisions of the foundation charter and is unable to react appropriately in some situations. Since the foundation is not allowed to sell shares, it is also difficult for a foundation-owned firm to raise capital. This can create a competitive disadvantage in times of crisis compared to non-foundation-owned firms.

In addition, the boards in charitable foundations are staffed by people with a non-profit background who may lack the entrepreneurial know-how to effectively control management. This can result in managers acting opportunistically, causing damage to the firm. The second disadvantage is that foundation-owned firms are only common in Western Europe (especially in the DACH region and Scandinavia). If firms have international customers and partners, this can lead to problems, as this unknown form of business may appear untrustworthy.

2.3.3 Summary

The advantages and disadvantages of foundation-owned firms compared to other types of companies are summarized again in Table 2-1.

Table 2-1: Summary of advantages and disadvantages of foundation-owned firms

	Advantages	Disadvantages
Founder perspective	• Preservation of the firm for eternity • Establishment of a "monument" • Avoidance of family conflicts • Guaranteed supply for the family (family foundation)	• Possibly disappointed descendants • Difficult for the founder to predict the future
Firm perspective	• No pressure from shareholders • Long-term orientation • High reputation (in Germany) • Tax advantages (charitable foundation)	• Possibly lack of effective control of the management • Rigid structure and lack of flexibility (especially charitable foundation) • Difficulties in raising capital • Unknown company type can lead to problems with foreign business transactions (charitable foundation)

These summarized results should be viewed from both the founder's and the firm's perspective and are applicable, for the most part, to all foundation-owned firms. Depending on whether the firm is held by a charitable or private foundation, there are additional advantages and disadvantages for the respective construct. A comparison of the advantages and disadvantages of private and charitable foundations is presented in Chapter 4.2 (table 4-1).

As this chapter demonstrates, the establishment of a foundation-owned firm has some advantages and disadvantages. The following chapters examine how these advantages and disadvantages affect firm performance and corporate governance.

3. Differentiation between foundation-owned firms and family firms[3]

3.1 Introduction

Due to the fact that foundation-owned firms often emerge from family firms, the distinction between these two classes of firms is usually unclear in public perception.

Also in business management research, insufficient differentiation has so far been made between foundation-owned firms and traditional family firms, although this would be particularly useful in terms of corporate governance. While the control of family firms is in family hands, there is no residual claimant as shareholder and controller in foundation-owned firms that are owned by a charitable foundation (Thomsen 1999; Franke and Draheim 2015). The assets are legally linked to the fulfilment of their purpose, so that there is only conditional availability. In addition, a foundation is only owned by itself, i.e. without shareholders or members. This differentiates them strongly from other legal forms in which most of the traditional family firms can be found. Therefore, there is often a lack of control mechanisms in foundation-owned firms. This is also due to the fact that members of foundations often do not have the necessary entrepreneurial know-how for effective corporate control due to their background in the non-profit sector.

Family foundations (private foundations) as owners of firms are a special case. They primarily serve private purposes, such as Bertelsmann Family Foundations. These are the owners of Bertelsmann SE & Co. KGaA and primarily pursue the purpose of family support and the preservation of the founder's will in the company. This type of foundation-owned firm is very similar to a traditional family business. However, the principle of preserving capital also

[3] This chapter is based on book chapter which is cooperated with Svenja Jarchow (Technical University Munich) (Hosseini and Jarchow 2018).

applies here. Keeping family care in mind, freedom of choice is also restricted in this case, although the definition of the purpose also takes care of the family into account.

Tagiuri and Davis (1992) described early on with their three-circle model the decisive internal influencing factors in family firms. The family (participated in the firm via shares), the management and the controlling bodies are in a triad that, depending on the structure, overlaps between the three areas. In the following, the "three-circle model" is used to work out the similarities and differences between family firms and foundation-owned firms. This provides a basis for the understanding of both types of companies and a differentiated view for further research approaches.

3.2 Family firms and the "three-circle model"

There is no common definition of family firms in research to date (Astrachan et al. 2002; Stanley et al. 2017; Zellweger 2017). Many authors integrate cultural and experience aspects that emerge over generations into their definition of family firms (Chua et al. 1999; Astrachan et al. 2002). The most widespread definition in German-speaking countries comes from the "Stiftung Familienunternehmen", which refers to Kirchdörfer (2011) and focuses on the family's influence on the firm. It states that a company of any size is a family firm if the majority of decision-making rights are held by the founder or his descendants.

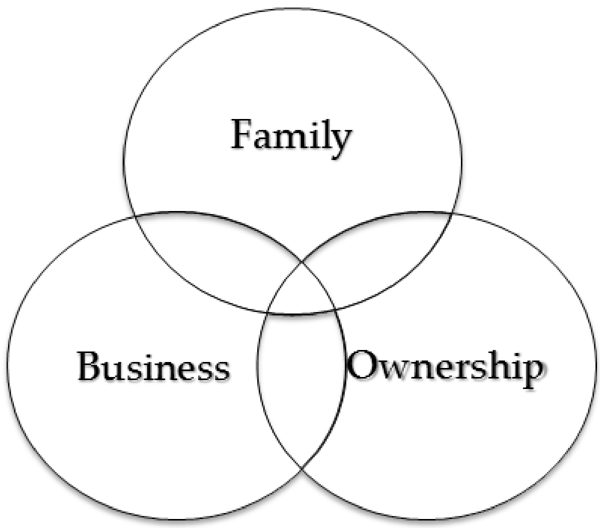
In 2002, Astrachan et al. developed a scale to measure family influence on family firms. The so-called F-PEC-Scale measures the influence of the family over three dimensions: power, experience and culture. In this article we will first of all only look at the dimension of power. To measure the family's influence on power, the authors use decision-making rights in a firm that consist of three components:

1. ownership and voting rights,
2. rights of the management board (influence of management) and
3. rights of the supervisory board.

On the basis of the decision-making rights that a founding family can hold in the firm, it is already clear that there can be several possibilities of influence, but also possible conflicts of interest in family firms.

In 1992, Tagiuri and Davis developed the “three-circle model” in order to develop a well-founded approach to the presentation of the roles prevailing in family firms. The model emphasizes that a family firm consists of two subsystems (family and firm) where different interests are represented (Zellweger 2017) and thus provides a good basis for understanding the conflicts of interest in family firms (Fig. 3-1). This model is not only concerned with the distribution of decision-making rights, but also with the potential for interpersonal conflict arising from personnel overlaps at the intersections between family and firm. This article focuses on the distribution of decision rights resulting from the overlapping of the two subsystems family and firm. Tagiuri and Davis find that three different interest groups meet in family firms. The family, the owners and the management can consist of the same or different persons in different constellations. The family is often involved as owner and in management and/or supervisory bodies of the firm simultaneously. In this case, the family is in possession of all or most of the above-mentioned decision-making rights, as they hold a significant share of the property and are represented on the board of directors and/or supervisory board. However, this means that one or more members of a family must take the view of different interest groups with divergent goals. This construction usually facilitates decision-making as the management (the family) controls itself. A missing control organ, however, can also be exploited by managers whose only goal is to maximize their personal profit. This lack of control in family firms is mostly compensated for by intrinsic motivation of the family members, as they identify very strongly with the firm and want to preserve the heritage of their ancestors (Miller et al. 2006; Block 2009). In the research carried out so far, it has even been possible to show a slightly better performance of family firms in comparison to other forms of business (Wagner et al. 2015). The disadvantage of this constellation, in addition to the possible repression of minority shareholders (Villalonga and Amit 2006), are the conflicting goals between the groups involved in the firm. While in other types of companies there are usually only different objectives between owners and managers, in family firms the family goals play an additional role (Chrisman et al. 2010). Owners usually want high dividends, while management wants to keep as much money as possible in the firm. With the family, both goals are conceivable. This depends on the personnel constellation in the family firm.

Figure. 3-1: Three-circle-model



Source: Tagiuri and Davis 1992

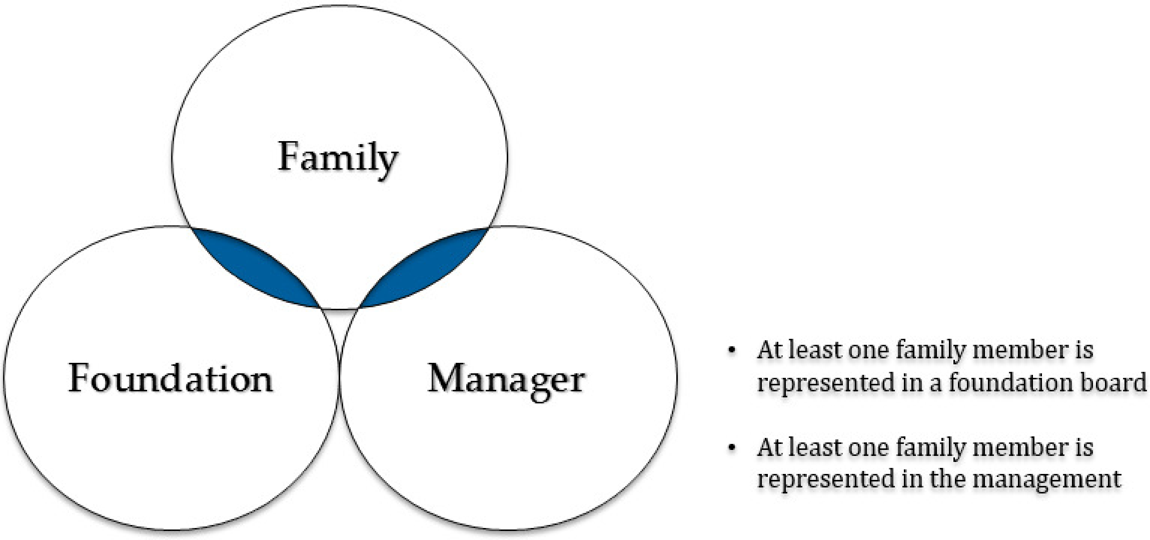
The family can also be in possession of all decision-making rights in foundation-owned firms. This situation arises when the family is represented in the management as well as in all bodies of the foundation. However, this constellation only applies to a small part of foundation-owned firms. All other foundation-owned firms differ in their structure from family firms, in some cases significantly. For this reason, it is necessary to subdivide the group of foundation-owned firms on the basis of the “three-circle model” in the following section.

3.3 Transferring the three-circle model to foundation-owned firms

The group of foundation-owned firms in Germany is heterogeneous. This is due to the fact that the founder has a wide scope of influence when setting up the foundation. For example, he or she can decide whether to hand over his or her firm to a charitable or private foundation. The private foundation is usually a family foundation with the main purpose providing care for the family. A charitable foundation, on the other hand, usually has the purpose of promoting social and public welfare-oriented projects from the dividends received (Thomsen 1999). Nevertheless, it is still possible to use up to one third of the dividends received for the family's provision (Kögel and Berg 2011). In addition to the choice of the form of foundation, the founder can also freely determine the structure of the foundation. The only requirement is that a foundation must have a board of directors (Rösner 2011). Other bodies such as a foundation board or a board of trustees may be formed to monitor the board of directors, but this is not absolutely necessary. For this reason, there are numerous different designs of foundation-owned firms in Germany. Based on the "three-circle model" of Tagiuri and Davis (1992) we identify four categories of foundation-owned firms, which enable us to gain a better understanding of this form of business and highlight the distinction between foundation-owned firms and family firms. A first extension of Tagiuri's and Davis' model is achieved by looking at the three categories from the perspective of a foundation-owned firm. The family remains as the bearer of possible ownership shares. However, family may influence on both, the foundation and the firm. In the following, management refers to firm management, while the introduction of the foundation as a new category is added, replacing ownership in the model of Tagiuri and Davis. This results in different types of foundation-owned firms, which differ in partly more, partly less from family firms.

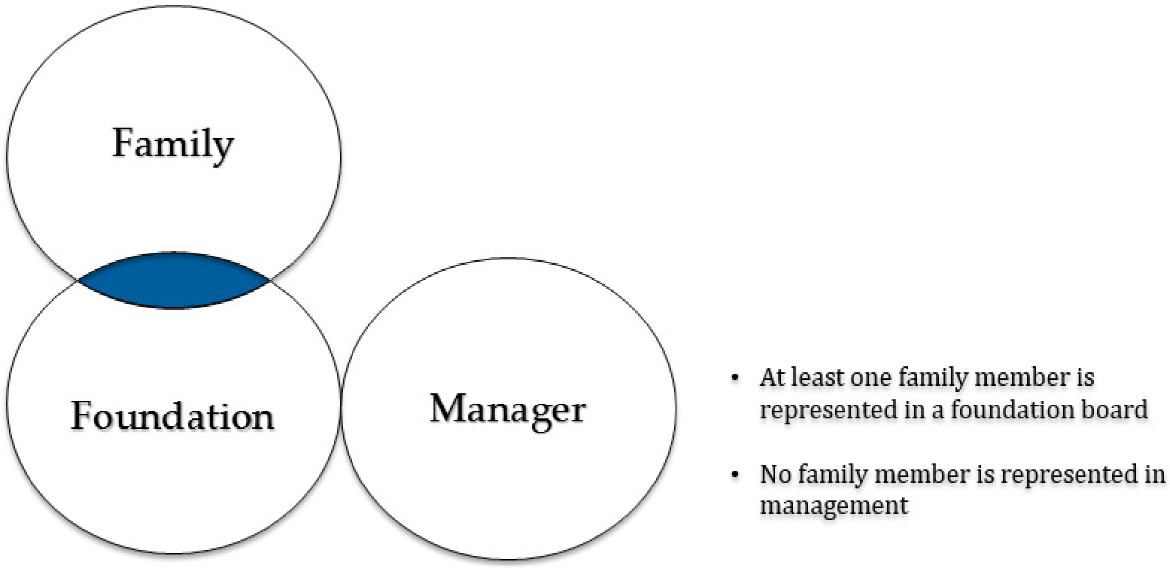
Foundation-owned firm type I: Type I foundation-owned firms form that type of firm structure, which is most similar to, and in some cases even equivalent to, the classic family firms. In this category, the firm is owned by a family foundation or a charitable foundation in which the majority of the members of the board are family members. In addition, the family also represents the majority of the firm's management. The family thus holds all important decision-making rights, as it can exercise ownership and supervision rights through the majority of the foundation's members. Through its leadership position in the management of the firm, the family is also able to influence the operating business. This is equivalent to the rights of management mentioned above. Examples of this type of company include Carthago GmbH and the Diehl Group. With regard to their governance structures, conflicts of interest and objectives between the groups involved, they hardly differ from traditional family firms, since the influence of the family on the firm was only marginally weakened by the establishment of a foundation and the family can freely dispose of the dividend. Fig. 3-2 illustrates that this type of foundation-owned firm has a conflict potential similar to that of family firms, since the family has an intersection to both management and property (yet potential family disputes have been reduced). Bertelsmann is a good example of this type of foundation-owned firm, as the Mohn family is represented on a number of boards of trustees, as well as in the supervisory board and management. In addition to the foundation, the family also holds 20% of the shares in the company. Family presence may also be lower in Type I foundation-owned firms; it is sufficient for the family to hold a majority of decision-making rights in both the foundation and the firm.

Figure 3-2: Type I foundation-owned firm



Foundation-owned firm II: Type II foundation-owned firms are distinguished by the fact that no family member is represented in the management of the firm. Thus, an important right of decision (right of the board of directors), which often distinguishes typical family firm, is no longer applicable. However, the fact that the family holds the majority of these firms in the foundation (charitable or private) boards means that this form of business still resembles a family firm, as the supervisory board and ownership rights remain in the family. If the firm is owned by a charitable foundation, the ownership rights for the family are more limited. This is due to the fact that these foundations aim to promote non-profit projects and ensure that management adheres to the requirements of the founder, which are laid down in the foundation charter. Even if only family members are represented in the foundation, they must adhere to the charitable purposes and are only allowed to claim a small part of the dividend of a maximum of one third for family care. Since the foundation is not allowed to form reserves, it is content with small dividends, which are sufficient for the funding of the projects (Achleitner and Block 2018). Since the family has only limited control and participation rights through this constellation, a high potential for conflict arises between the non-family members of the foundation and the family as well as between family and management. Fig. 3-3 illustrates the structure of this type of foundation-owned firm. The family forms an intersection with the ownership of the firm through the foundation, but not with management. Robert Bosch GmbH can be cited as an example of this construction. Christof Bosch holds shares in Robert Bosch GmbH and, with one seat on the supervisory board, holds supervisory rights. Nevertheless, no family member is active in the management of the firm. The fewer family members are represented in the foundation, the greater the difference to a traditional family firm.

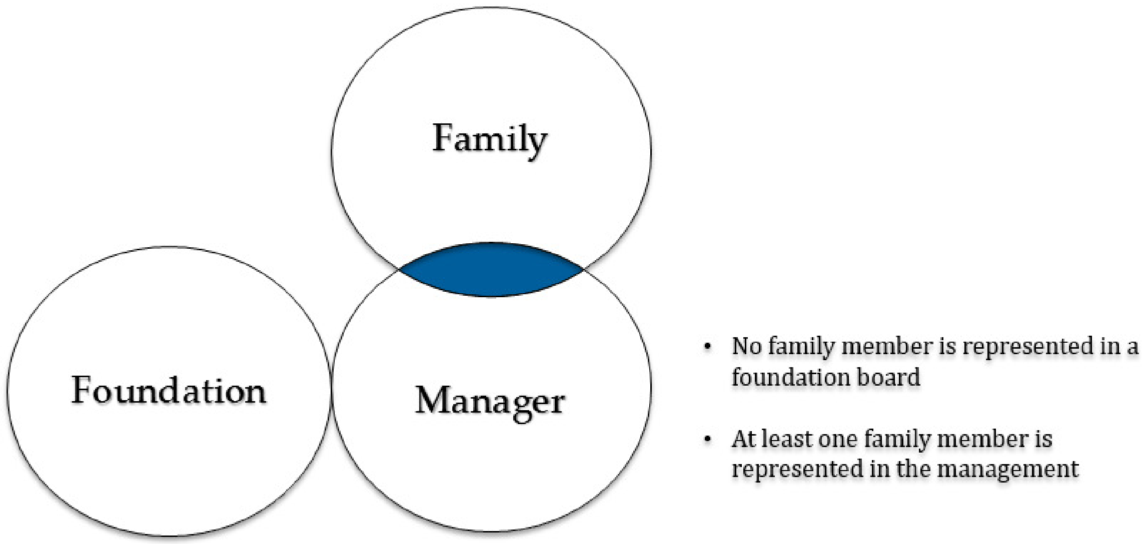
Figure 3-3: Type II foundation-owned firm



Foundation-owned firm III: The firm is owned by a charitable foundation in type III foundation-owned firms. The difference compared to type II is that no family member is represented in the boards of the foundation and therefore no share is held by the family members via the foundation. Private foundations cannot hold any shares of the firm in this category of foundation-owned firms, since one family member is always represented in the committees of a family foundation. In this case, the family's influence on the firm is only available via board of directors' rights, since at least one family member is a member of the firm's management. The supervisory and property rights are no longer in family hands. Nevertheless, it is possible that a family member may own a very small private share of the firm in addition to the foundation and thus have a very low level of supervisory and ownership rights, which are too marginal for important decisions and can be outvoted by the charitable or private foundation.

However, the fact that the family is a member of the firm's management and is controlled by external members of the foundation creates a high potential for conflict, since usually there are people in the foundation who have a high level of know-how in the non-profit sector but are not educated well in terms of entrepreneurship and therefore focus on the use of funds (Franke and Draheim 2015). For this reason, an intrinsically motivated controlling body may be missing in the firm, which is present in traditional family firms. Depending on the number of family members on the firm's board of directors, firms in this category may fall under the definition of family firms, whereby the family must have a majority of the management staff. Type III foundation-owned firms are rarely found in practice, but they still represent an opportunity for founders. Fig. 3-4 illustrates this construction.

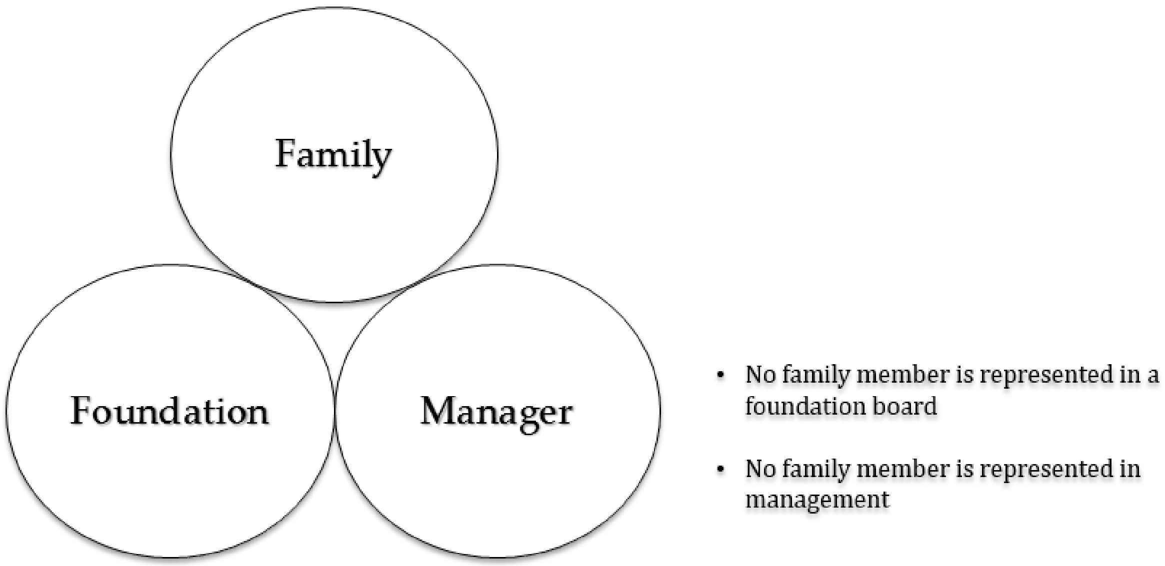
Figure 3-4: Type III foundation-owned firm



Foundation-owned firm type IV: Type IV foundation-owned firms show the largest difference to classic family firms. In this form of business, family members are not represented either in the foundation or on the firm's board of directors (Fig. 3-5). These are often listed firms of which the majority of their shares are held by foundations. In these firms, the family is usually no longer involved in the firm at all and has no decision-making rights. There are 24 listed foundation-owned firms in Germany, some of them among the largest business enterprises in Germany, including for example Carl Zeiss AG, Fresenius AG and ThyssenKrupp. Due to the fact that there is often control by minority shareholders in listed firms, corporate monitoring is more likely to be ensured than in type III. However, this again creates greater potential for conflict between minority shareholders and the foundation, as well as between minority shareholders and management.

However, foundation-owned firms of this type do not necessarily have to be listed on the stock exchange. There are also non-listed firms, such as Körber AG or the Gebora Brandstätter Stiftung & Co. KG (Playmobil), which belong to this category of foundation-owned firms. These firms are mostly former family firms, but after the transfer of the company to a foundation they have little in common with a family firm.

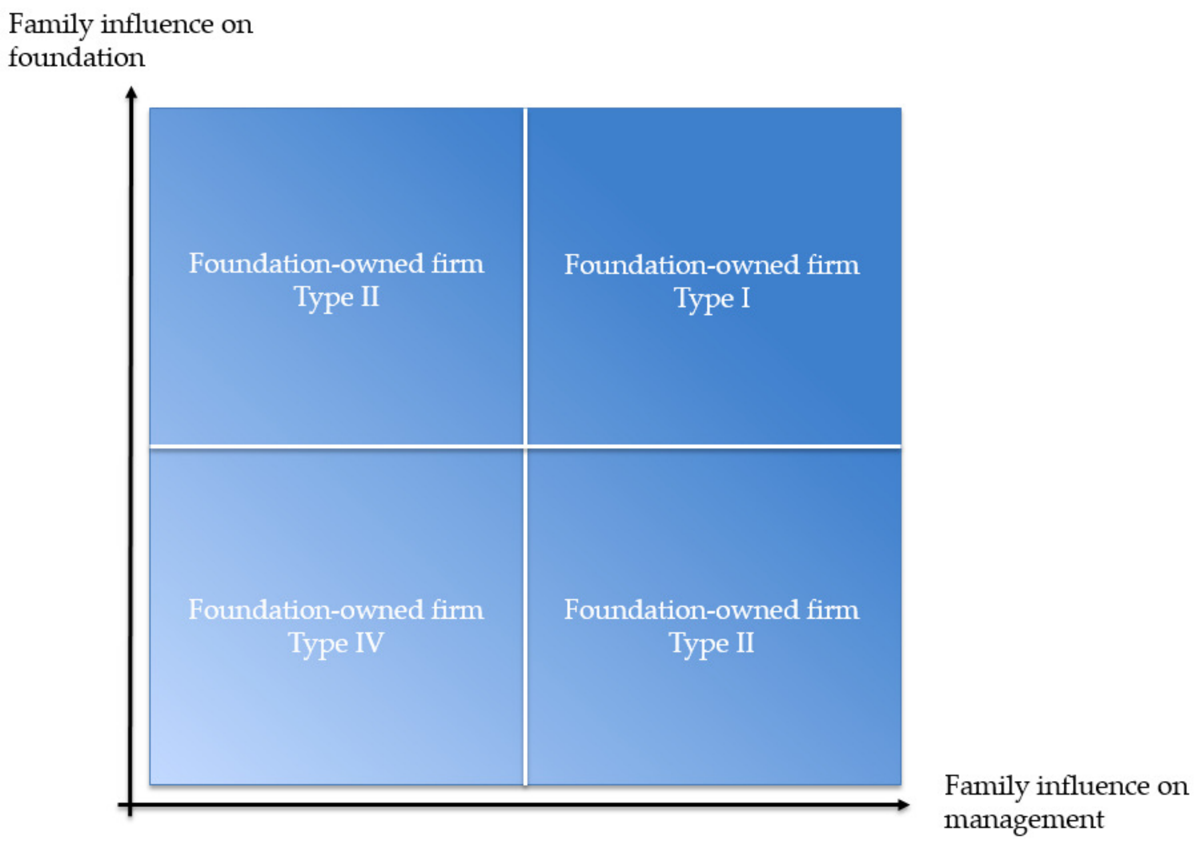
Figure 3-5: Type IV foundation-owned firm



3.4 Summary

The four identified types of foundation-owned firms can be represented in a matrix (Fig. 3-6).

Figure 3-6: Types of foundation-owned firms



On the X-axis, the family influence on the management and thus the rights of the board of directors is measured. The Y-axis measures the family influence on the foundation, which acts as the owner, and thus the control and supervision rights.

Family influence can be measured, as described in this article, by "hard" facts such as corporate or voting rights shares and the number of family members in the foundation and firm that correspond to the power dimension of the F-PEC-scale. In addition, "soft" factors such as personnel interdependencies or the flexibility of the foundation's statutes can also be used to measure family influence on the foundation and the firm. These factors refer to the experience and culture dimension of the F-PEC-scale.

The matrix makes it possible to classify each foundation-owned firm in Germany into one of the categories, although there may be further differences in family influence within the categories. Firms located in the darker part of the matrix are more similar to a family firm than brighter ones. Family members of type I foundation-owned firms are represented in the boards of the charitable or private foundation. Thus, the family has supervisory and control rights over the management. In addition, at least one family member is also active in the management of the firm. As a result, the family is in possession of management rights and all decision-making rights over the firm. Therefore, type I foundation-owned firms can be regarded as a type of firm which is very similar to a family firm. Those are mapped in the second quadrant of the matrix.

In type II foundation-owned firms, due to their membership in the boards of the foundation, the family has control and supervisory rights over the firm. However, there is no longer a family member in the management team and the family loses its management rights. These firms are represented in quadrant 1 of the matrix. The existing influence of the family on the foundation can vary depending on the composition of the board of the foundation and the flexibility of the charter, but it can be noted that this type of company is very similar to a traditional family firm or, depending on the definition and design of the shares and seats, would also be attributed to the family firms.

Type III foundation-owned firms are characterized by the fact that the family can only exercise management rights through its membership in management. In most cases, ownership rights of supervision and control are completely eliminated, since the family is not represented in any foundation board. This type of foundation-owned firm is not frequently represented in practice and can be found in our matrix in the 4th quadrant. The influence of the family within the group can also vary depending on how many non-family members sit on the board.

In type IV foundation-owned firms, the family has no influence on either the foundation or the firm, as the family has been completely removed from the corporate boards. Firms that are found in quadrant 3 in our matrix can no longer be seen as traditional family firms.

Conclusion and outlook

This chapter makes it clear that, as a rule, foundation-owned firms cannot be equated with traditional family firms. Due to the flexible configuration options that founders have when setting up a foundation, foundation-owned firms can take on many different forms. In a first step, these can be divided into the four types. Family influence in the group of foundation-owned firms can vary substantially, depending on the construction, and in extreme cases can even be completely lost. The matrix enables us to classify foundation-owned firms in Germany within or between the four quadrants. When the influence of the family on both the foundation and its management is high, a foundation-owned firm is very similar to a family firms. Types II and III may already differ from family firms, as not all decision-making rights are bundled in family ownership. Type IV foundation-owned firms are no longer seen as family firms. They no longer have anything in common with family firms, as the family no longer has any decision-making rights.

For this reason, it is important to subject the corporate form of a foundation-owned firm to further investigations. For example, differences in performance between the four types of foundation-owned firms and family firms can be investigated. To achieve this, it will be necessary to develop a scale that makes it possible to measure the influence of the family on the foundation and the firm. In addition, future research should aim to compare different countries, since in countries with different legal systems, completely different forms of foundation-owned firms are possible.

The structural differences illustrated above lead to corporate governance conflicts that differ from those in traditional family firms. Since the number of foundation-owned firms in

Germany has risen significantly in recent years and due to the great flexibility in the design of a foundation construction, a corporate governance code or guidelines for foundation-owned firms could be developed, which can be used by established and potential foundation founders.

The next chapter examines performance differences between different types of foundation-owned firms.

4. Performance differences between different types of foundation-owned firms[4]

4.1 Introduction

As the previous chapters have shown, there are many different types of foundation-owned firms. These may differ due to the legal structure of the firm and the distribution of the capital and voting rights held by the foundation. At the same time, foundations can take different forms and can be subdivided into charitable and private foundations. As described in the previous chapter, foundation owned-firms should not simply be equated with family businesses in research. A few researchers have also come to this conclusion and started to investigate the performance of foundation-owned firms by comparing foundation-owned firms with non- foundation-owned firms (see literature review in Chapter 4.3). However, due to the fundamental structural differences that even exist between the various foundation-owned firms, it is necessary to consider the group of foundation-owned firms separately and to examine possible performance differences within this group. In the following study foundation-owned firms will be distinguished in three different ways. A distinction is made between firms with charitable and firms with private foundations as shareholders. Listed and non-listed foundation-owned firms are also compared. Finally, the firms in which the family is still active in management of the firm are compared to firms in which the family is at most still active in the foundation boards, but in the management of the firm.

In the following, the existing literature on the performance of foundation-owned firms is summarized first. Subsequently, hypotheses are derived and the data and methodology are presented. The results of this study will then be summarized.

[4] This chapter represents substantially revised version of a working paper in collaboration with Ann-Kristin Achleitner (Technical University Munich), Jörn Block (Trier University), Svenja Jarchow (Technical University Munich) and Nadine Kammerlander (WHU Otto Beisheim BusinessSchool).

4.2 Literature review on performance of foundation-owned firms

Little is known about the performance differences between the different types of foundation-owned firms. Most prior research is about the accounting performance of foundation-owned firms compared to non-foundation-owned firms. In the following, we give a brief overview of the literature on the performance of foundation-owned firms.

Thomsen (1996) is the first study that examines the performance of foundation-owned firms. It compares foundation-owned firms to private firms with personal ownership and public firms with dispersed ownership. The study uses accounting data from the 300 largest firms in Denmark from 1982 to 1992 and finds no significant differences between foundation-owned firms, private firms, and public firms regarding return on assets (ROA) and return on equity (ROE). Thomsen (1999) finds that tax advantages and monitoring by minority investors and debt providers cannot explain this unexpected result. Performance increases if the family is a member of the foundation's board, but the results are not significant.

There is also a tendency that publicly listed foundation-owned firms have lower ROE than non-listed foundation-owned firms. Herrmann and Franke (2002) compare foundation-owned firms to publicly listed firms using German accounting data from 1990 to 1992. They find that foundation-owned firms show a slightly higher accounting performance than listed firms. Thomsen and Rose (2004) examine the stock-market valuation of foundation-owned firms listed on the Copenhagen Stock Exchange in the period from 1996 to 1999. In a sample of 171 firms, 20 firms are majority controlled by a foundation. Their results show that listed foundation-owned firms do not differ from other listed firms regarding risk adjusted stock returns, accounting returns, and Tobin's q.

In another study, Dzansi (2012) uses Stockholm Stock Exchange data of 182 firms over the period from 1999 to 2005 and compares the performance of foundation-owned firms with other firms. The study finds no effect of foundation ownership on Tobin's q. Hansman and Thomsen

(2013) take a different approach and examine the performance of different groups of Danish and Swedish foundation-owned firms over the period from 2003 to 2009. The study shows that non-listed foundation-owned firms underperform compared to listed firms when matched by industry and firm size, while listed foundation-owned firms outperform in terms of accounting returns and firm value. Franke and Draheim (2015) use a sample of 164 German firms to compare foundation-owned firms to family firms. Using accounting data from 2003 to 2012, the study shows that foundation-owned firms are larger than matched firms regarding employees, operating revenues, and total assets. Further, the study shows that foundation-owned firms pursue a more conservative financing policy, helping them to stabilize their long-term existence. The study also shows that foundation-owned firms perform slightly weaker than comparable matched firms. This is the only study that divides foundation-owned firms into non-profit and private ones. However, these are again compared with non- foundation-owned firms. The most recent study on this topic is by Draheim (2016). In his dissertation, he examines the performance differences between for-profit foundation-owned firms and non-profit firms that are not held by a foundation. The result is that for-profit foundation-owned firms perform better than non-profit firms.

To the best of our knowledge, this is the first study focusing on the performance differences between different types of foundation-owned firms.

4.3 Hypotheses about performance differences between different types of foundation-owned firms

Little is known about the performance differences between the different types of foundation-owned firms. As shown in the literature review, most prior research is concerned with the accounting performance of foundation-owned firms compared to non-foundation-owned firms. Several studies find a positive effect of foundation ownership on firm success

(Herrmann and Franke 2002; Draheim 2016). Other studies, however, find a lower effect (Franke and Draheim 2015; Achleitner et al. 2018). They argue that that foundation-owned firms are long-term oriented and have problems concerning monitoring management. Still other studies, (Thomsen 1996; Thomsen and Rose 2004; Dzansi 2012) report non-significant findings (i.e. they do not find differences between foundation-owned firms and other firms with regard to ROA, ROE and Tobin's q).

This section develops three basic hypotheses about the performance differences within the group of foundation-owned firms. Hypothesis 1 concerns the differences between charitable and family foundations. Hypothesis 2 refers to the differences between listed and non-listed foundation-owned firms. Finally, Hypothesis 3 deals with the differences between the foundation-owned firms in which the founding family is still active in the firms' management, and foundation-owned firms in which the founding family is at most still active on the foundation boards, but not in the firms' management.

Charitable versus family foundations

Foundations are institutions without shareholders or owners. They can be subdivided into family foundations and charitable foundations. The former group uses dividends from the firm to finance charitable projects, whereas the latter group distributes those dividends to families or individuals (Achleitner and Block 2018). The main purposes of family foundations are to maintain the wealth of the founding family and to avoid family conflicts (Borsting, Kuhn, Poulsen and Thomsen, 2016; Davis and Harveston, 2001). The family is typically represented on the foundation's board, but for the most part it no longer has direct equity stake in the firm. This makes it difficult for the family to sell the firm to outside investors. In this way, the firm remains independent and avoids problems related to family conflicts. However, there are also cases in which the founding family, while a beneficiary, is still represented in the management of the firm (see next hypothesis).

Instead of transferring the equity into a family foundation, the founder or founding family may alternatively decide to transfer the equity into a charitable foundation. The charitable foundation uses the dividends it receives from the firm for charitable purposes, as defined in the foundation charter. The final beneficiaries of the dividends have no control or voting rights to influence the decisions of the foundation or the foundation-owned firm, which is a strong contrast to other firm owners, who are typically individuals with residual claims and control rights (Thomsen, 1999). Charitable foundation board members often have a background in the nonprofit sector and lack the necessary entrepreneurial know-how to effectively control management (Franke and Draheim, 2015). Such a situation can lead to a lack of corporate control, which provides opportunities for other stakeholders, such as the firm's management, to act opportunistically at the expense of the firms' development and profitability.

Furthermore, family foundations are also well known in other countries, like the U.S., which makes business relationships much easier than with charitable foundations, which are unfamiliar and nontransparent (Thomsen 2017). Table 1 summarizes the advantages and disadvantages of family and charitable foundations as shareholders.

Table 4-1: Advantages and disadvantages of family foundations and charitable foundations as shareholders

	Advantages	Disadvantages
Charitable foundation	• Promotion of the common good • Avoidance of family conflicts • Tax advantages • Positive public reputation • Employees often strongly identify with the foundation	• Unfamiliarity with this type of firm can lead to problems with foreign business transactions • Generally run by persons who do not have entrepreneurial know how
Family foundation	• Possibly higher intrinsic motivation of family members to control the management • More flexibility than charitable foundations • Guaranteed supply for the founding family • Common in other countries	• Family conflicts cannot be completely excluded • Opportunistic actions of family members and other stakeholders are possible

We argue that charitable foundations face greater difficulties than family foundations do in monitoring the firm's management. This is because charitable foundations typically employ and are managed by individuals with a professional background in the social or charitable sector. They do not often have the expertise to effectively monitor the firm's management. This allows management to act opportunistically, which can have a negative impact on firm performance. Family foundations, in turn, are typically managed and governed by descendants of the firm's founder. The creation of this type of foundation was mostly undertaken to avoid family conflicts in the succession process (Borsting et al. 2016). We argue that the capability and motivation to monitor the firm's management is significant. This is due to family tradition, existing industry or management expertise, and the fact that the founding family receives the dividend. A model by Hillman and Dalziel (2003) shows that a higher monitoring incentive for a board has a positive effect on firm performance. These arguments lead to our first hypothesis:

Hypothesis 1: Foundation-owned firms owned by a family foundation have a higher accounting performance than firms owned by a charitable foundation.

Listed versus non-listed foundation-owned firms

Foundation-owned firms can be listed on the stock exchange like any other firm, regardless of whether they are run by charitable or family foundations. A major advantage for firms going public is making it easier to raise capital for large investments (Pagano, Panetta and Zingales 1998). In addition, bank loans become cheaper for listed firms due to a broader diversification of the portfolio (Rajan 1992). Furthermore, the transfer of shares to management can increase managers' motivation (Schipper and Smith 1986; Holmström and Tirole 1993). This can result in better performance.

However, there are also disadvantages to an initial public offering (IPO). Due to splitting ownership rights, over-monitoring can occur due to the large number of shareholders (Burkhart, Gromb and Panunzi 1997; Pagano and Röell 1998). The new distribution of ownership and control might lead to negative accounting performance, because the agency costs increase (Jain and Kini 1994; Holthausen and Larcker 1996; Kim, Kitsabunnarat and Nofsinger 2004). However, most studies find ambiguous results when examining accounting performance after an IPO (Mikelson, Partch and Shah 1997; Wang 2005). Generally, foundation-owned firms are long-term oriented (Franke and Draheim 2015; Eulerich 2015).

However, if firms are listed on the stock exchange, other objectives could become more important. When firms are active on the capital market, managers are under greater public scrutiny. This could put greater pressure on them to lead the firm to good accounting performance, despite the possible lack of control by the foundation. In addition, listed firms always have minority shareholders who should generally have a high level of entrepreneurial know-how, especially in relation to members of charitable foundations (Achleitner, Bazhutov, Betzer, Block and Hosseini 2018). These minority shareholders could compensate for the foundation's lack of or ineffective monitoring and lead to better performance, because there is no danger of over-monitoring in foundation-owned firms (Thomsen and Rose 2004). These arguments bring us to our second hypothesis:

Hypothesis 2: Listed foundation-owned firms have a higher accounting performance than non-listed foundation-owned firms.

Family management versus non-family management

There are some arguments that family management can have a positive impact on performance. Members of the founding family grew up with the firm and usually have substantial knowledge of the firm’s internal processes (Miller and Le Breton-Miller 2006). Furthermore, the assumption can be made that they identify to a larger extent with the firm than do nonfamily members. Therefore, family members should have a higher intrinsic motivation to run the business successfully (Miller and Le Breton-Miller 2006; Davis, Allen and Hayes 2010).

However, there are also several negative aspects to familial management. First, there might be the problem of entrenchment and nepotism (Morck, Shleifer and Vishny 1988; Shleifer and Vishny 1997; Volpin 2002). In this situation, a family member may act opportunistically and may use the firm’s resources for his or her personal benefit (Morck, Wolfenzon, Yeung 2005) at the expense of other stakeholders (Anderson and Reeb 2003). Second, the pool of suitable family successors is limited (Bennedsen, Nielsen, Perez-Gonzalez, Wolfenzon 2007). There is a high probability that the management position will be filled by a family member who does not have sufficient management know-how to lead a firm. These two risks of this ownership structure may counteract or even outweigh positive factors and may lead to weaker performance in firms in which the founding family is active in the firm's management. Previous studies find ambiguous results for performance differences between family management and nonfamily management. (Block, Jaskiewicz, Miller 2011; Wagner, Block, Miller, Schwens and Xi 2015). However, foundation-owned firms are a special case.

A common motive of a founder to transfer his firm to a foundation may be that he or she has no suitable descendants and wants to protect the firm from mismanagement (Achleitner, Bazhutov, Betzer, Block, Hosseini 2018; Probst and Schweinsberg 2018). For this reason, one can assume that in foundation-owned firms in which a family member is active in the firm's management, only descendants who have sufficient entrepreneurial know-how are employed. That is why arguments against familial management mentioned above will be mitigated in the context of foundation-owned firms.

Due to the lessening of the negative factors of familial management, we assume that the positive aspects outweigh the negatives. This leads us to our third hypothesis:

Hypothesis 3: Foundation-owned firms in which the founding family is still involved in management of the firm have a higher accounting performance than do other foundation-owned firms

4.4 Data and method

Sample

During data collection, we identified 372 foundation-owned firms in Germany. We started with a list of German foundation-owned firms generated from Fleschutz (2009) and Besecke (2015) and extended these lists with the help of data from the Federal Financial Supervisory Authority (BAFIN) and other databases, such as Hoppenstedt and Amadeus. As many of the identified 372 foundation-owned firms are excluded from the disclosure obligation (less than 12 million € turnover or less than 250 employees), they do not have to publish their income statement. This left accounting data available for 142 foundation-owned firms in the period of 2006 to 2016.

We used the Amadeus database to collect the accounting data of these firms. Subsequently, further data were collected manually through the German Federal Gazette (Bundesanzeiger). In addition to the accounting data, the ownership structures were collected through the Hoppenstedt database. We used the NACE Rev.2 codes for industrial classification. If a firm was not owned by a foundation for the entire 10-year period, the firm was removed. We only examined firms for which we found complete data for the entire 10 years without missing values, because this analysis is not a panel regression. After correcting the data, a sample of 142 foundation-owned firms remained. Table 4-2 provides an overview over our variables and Table 3 provides an overview over our sample.

Among those 142 foundation-owned firms, 32 are owned by a family foundation. Twenty-three of the foundation-owned firms in our sample are listed. Twenty-nine firms had founding family still in management. We checked whether there were changes in the composition of the boards between 2006 and 2016 and whether this resulted in changes in family influence of the twenty-nine firms in which the founding family has direct influence on business decisions. Eighteen of which are owned by a nonprofit and eleven are owned by family foundations.

Method

To test the developed hypotheses we use a classical linear regression for four different performance measures.

Dependent variables: The dependent variables are *Return on Sales (RoS), Return on Investments (RoI), Return on Assets (RoA) and Return on Equity (RoE)*. These four variables are chosen, because they are the most common profitability indicators used to assess firm performance. In selecting the variables, we based our selection on previous studies that have examined the accounting performance of foundation-owned firms (Thomsen 1996; Herrmann and Franke 2002; Franke and Draheim 2015) and family firms (Andersen and Reeb 2003; Andres 2008). Using the Amadeus database, we collected the data from 2006 to 2016 for all four variables and used their average for our calculations.

Independent and control variables: The main interest in this article lies in determining how the heterogeneous group of foundation-owned firms differs in terms of performance. For this purpose, three dummy variables are created. The variable *charitable* foundation indicates whether the firm has a charitable or a family foundation as shareholder. The influence of a stock exchange listing on performance is tested by the variable *listed foundation-owned firm where we have checked for each firm via the Hoppenstedt database whether it is listed on the stock exchange.* The variable *family management* indicates whether the founding family still has an influence on the firm's management decisions or whether the founding family has an influence on the foundation at most. We were able to obtain this information through the Amadeus database.

In addition, a large number of control variables are included. The variables *firm size* (average number of employees (log) (2006-2016)) and *firm age* (in years) aim to control for effects related to the size or the life cycle of the firm. We use industry dummies to control for different industries based on NACE Rev.2 codes for industrial classification. Three industries are frequently represented in our sample, which are covered by the variables *professional, scientific and technical activities, manufacturing* and *retail* (wholesale and retail trade; repair of motor vehicles and motorcycles). *Other industries* summarizes all other industries that do not occur more than four times in our sample. To control for ownership structure and the influence of the foundation on the firm, the variable *foundation shares* (number of shares held by the foundation in percent) is included. The variable *debt-equity ratio* is used to control for effects relating to the firm's capital structure. Finally, the variable *sales growth* (average sales growth between 2006 and 2016) controls for firms that follow an aggressive growth strategy. The results of the Pearson correlation are shown in Table 4-3

Table 4-2: Description of variables

Variable	Description
Dependent variables	
RoS	Average return on sales (2006-2016)*
RoI	Average return on investment (2006-2016)*
RoA	Average return on assets (2006-2016)*
RoE	Average return on equity (2006-2016)*
Independent variables	
Charitable foundation	Dummy for whether foundation is charitable or family***
Listed foundation-owned firm	Dummy for whether firm is listed on the stock exchange or not***
Family management	Dummy for whether founding family is still in management of the firm or not*
Control variables	
Foundation shares	Number of shares held by the foundation**
Firm size	Average number of employees (log) (2006-2016)*
Sales growth	Average sales growth between 2006 and 2016*
Debt-equity ratio	Total liabilities/total equity*
Firm age	Age of the firm**
Professional, scientific and technical activities	Industry dummy for firms active in professional, scientific and technical activities*
Manufacturing	Industry dummy for firms active manufacturing*
Retail	Industry dummy for firms active in wholesale and retail trade; repair of motor vehicles and motorcycles*
Other industries	Industry dummy for firms active in other industries*

*Amadeus database

** Hoppenstedt database

.

Table 4-3: Pearson correlation

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	VIF
1. RoS	5.07	0.67																
2. RoI	4.48	0.50	**0.68**															
3. RoA	6.36	0.53	**0.56**	**0.94**														
4. RoE	10.03	1.01	**0.41**	**0.75**	**0.70**													
5. Charitable foundation	0.71		**-0.21**	**-0.14**	-0.14	-0.10												1.04
6. Listed fof	0.19		-0.01	0.01	0.04	-0.05	0.10											1.26
7. Family management	0.26		0.13	**0.27**	**0.26**	**0.23**	0.02	0.02										1.17
8.Manufacturing	0.36		-0.11	-0.09	-0.08	-0.06	-0.01	0.12	-0.07									1.34
9. Retail	0.31		-0.12	-0.05	-0.06	-0.08	0.01	-0.08	0.01	-0.19								1.17
10. Other industries	0.10		0.07	-0.06	-0.08	-0.08	-0.00	-0.03	0.01	**-0.33**	-0.16							1.39
11. Foundation hares	64.27	3.29	0.12	0.07	0.05	0.13	0.00	**-0.35**	0.10	0.01	-0.13	0.08						1.25
12. Firm size	3.19	0.08	-0.00	**0.17**	**0.21**	**0.18**	0.12	**0.22**	**0.31**	0.08	-0.05	**-0.24**	-0.05					1.26
13. Sales growth	31.73	4.77	**0.35**	**0.31**	**0.33**	**0.30**	0.08	-0.08	0.01	-0.10	0.02	0.01	0.14	0.12				1.14
14. ept-equity-ratio	125.52	9.85	**-0.28**	**-0.29**	**-0.35**	-0.00	0.07	-0.05	0.01	-0.06	0.04	-0.08	-0.10	0.03	-0.09			1.05
15. Firm age	67.73	3.81	-0.03	-0.05	-0.00	-0.02	-0.00	-0.20	-0.11	-0.06	0.01	0.09	-0.11	-0.04	**0.19**	0.01		1.10

The coefficients with a value larger than 0.05 are significant at 5 percent level and are highlighted in bold.

The p-values show, that there are scarcely significant correlations between the independent variables. Only the size of the firm and its shares correlate with the variable "listed". This was to be expected, as large firms in particular are going public. In addition, it is obvious that shares are sold through the stock exchange listing, and the foundation thus holds relatively fewer shares in the firm than in the case of non-listed firms. This is confirmed by the significantly negative correlation coefficient. All other independent variables do not correlate, which confirms that we include the three groups of foundation-owned firms (charitable, listed, family) in the regression analysis. Between the four performance measures that we use as dependent variables, we find a high and significant correlation. This is good, as we show that we can use all four metrics as performance indicators. Due to the fairly small sample, the Variance Inflation Factor (VIF) value was determined for to ensure no multicollinearity. The reciprocal of the tolerance is known as the VIF. The VIF shows us how much the variance of the coefficient estimate is being inflated by multicollinearity. For example, if the VIF for a variable were 9, its standard error would be three times as large as it would be if its VIF was 1. In such a case, the coefficient would have to be three times as large to be statistically significant.

In the next step, a classical linear regression is calculated. Subsequently, a median regression is done to control the robustness of the results by checking for outliers.

4.5 Results

The results of the linear regression are reported in Table 4-4.

Table 4-4: Linear regression results

	RoS *Coeff.* *(Std. Err.)*	**RoI** *Coeff.* *(Std. Err.)*	**RoA** *Coeff.* *(Std. Err.)*	**RoE** *Coeff.* *(Std. Err.)*
H1 *Charitable foundation*	**-3.921***** (1.468)	**-2.288**** (1.106)	**-2.518**** (1.117)	**-4.370**$^{+}$ (2.374)
H2 *Listed foundation-owned firm*	1.264 (1.791)	0.091 (1.333)	0.430 (1.373)	-0.417 (2.918)
H3 *Family management*	1.462 (1.576)	**2.795**** (1.174)	**2.617**** (1.210)	4.142 (2.571)
Foundation shares	0.548 (1.528)	-0.240 (1.139)	-0.322 (1.154)	2.090 (2.453)
Firm size	-0.416 (0.694)	0.444 (0.518)	0.764 (0.529)	1.294 (1.124)
Sales growth	**0.479***** (0.011)	**0.026***** (0.008)	**0.030***** (0.008)	**0.058***** (0.017)
Debt-equity-ratio	**-0.015***** (0.005)	**-0.013***** (0.003)	**-0.017***** (0.003)	0.002 (0.008)
Firm age	-0.017 (0.013)	-0.010 (0.010)	-0.005 (0.010)	-0.014 (0.022)
Manufacturing	-2.137 (1.476)	**-1.890**$^{+}$ (1.110)	**-2.073**$^{+}$ (1.133)	-2.663 (2.408)
Retail	**3.767**$^{+}$ (2.206)	-2.030 (1.644)	-2.412 (1.693)	-5.359 (3.597)
Other industries	-0.270 (1.625)	-1.75 (1.215)	**-2.154**$^{+}$ (1.242)	-3.311 (2.640)
R square	0.266	0.277	0.325	0.186
N firms	142	142	142	142

*** $p<0.01$, ** $p<0.05$, $^{+}$ $p<0.1$

The results show that foundation-owned firms owned by a charitable foundation perform significantly worse than firms owned by a family foundation. These results apply to all four performance measures, RoS, RoI, RoA and RoE. Thus, the results confirm Hypothesis 1. The performance of foundation-owned firms listed on the stock exchange is not significantly higher than that of non-listed firms. This rejects Hypothesis 2. If the founding family is still active in the management of a firm, it has a positive influence on firm performance. All four coefficients show a positive influence, but the family influence is significant only in terms of RoI and RoA. These two performance measures also have the highest R square, 0.325 (RoI) and 0.277 (RoA). Therefore, Hypothesis 3 can be partially confirmed.

As expected, the debt-equity ratio has a significantly negative influence while that of sales growth has a significantly positive influence. The variables age, size and shares do not have any effect on the performance of foundation-owned firms. Thus, Hypothesis 1 can be fully confirmed, and Hypothesis 3 partially confirmed. Hypothesis 2 must be rejected

Table 4-5: Median regression results

	RoS *Coeff.* *(Std. Err.)*	**RoI** *Coeff.* *(Std. Err.)*	**RoA** *Coeff.* *(Std. Err.)*	**RoE** *Coeff.* *(Std. Err.)*
H1 *Charitable foundation*	**-2.098****	**-2.254*****	-1.523	-2.611
	(0.863)	(0.772)	(1.105)	(2.073)
H2 *Listed foundation-owned firm*	0.529	-0.102	0.656	0.707
	(1.054)	(0.931)	(1.358)	(2.073)
H3 *Family management*	1.169	0.778	1.445	2.859
	(0.927)	(0.820)	(1.196)	(2.245)
Foundation shares	0.719	-0.650	-0.144	-0.342
	(0.898)	(0.795)	(1.141)	(2.142)
Firm size	-0.076	0.479	0.233	-0.342
	(0.408)	(0.362)	(0.523)	(0.982)
Sales growth	**0.027****	**0.020*****	**0.025*****	**0.055*****
	(0.006)	(0.005)	(0.008)	(0.015)
Debt-equity-ratio	**-0.012****	**-0.009*****	**-0.012*****	0.010
	(0.003)	(0.002)	(0.003)	(0.007)
Firm age	-0.004	-0.001	(0.007)	-0.000
	(0.007)	(0.007))	(0.010)	(0.019)
Manufacturing	-0.568	0.098	-1.560	-0.700
	(0.868)	(0.775)	(1.121)	(2.103)
Retail	1.986	-0.279	-1.361	-0.985
	(1.298)	(1.148)	(1.674)	(3.142)
Other industries	0.339	-0.891	**-2.207**$^{+}$	-0.723
	(0.956)	(0.849)	(1.229)	(2.305)
R square	0.266	0.277	0.325	0.186
N firms	142	142	142	142

*** p<0.01, ** p<0.05, $^{+}$ p<0.1

The results of the median regression indicate that the results of the linear regression were slightly driven by outliers. If a charitable foundation holds shares in a firm, this still has a significant negative effect on RoS and RoI. The regression coefficents also have negative effects for RoA and RoE, but these are not significant. Altogether, median regression also confirms hypothesis 1. Hypothesis 2 can be rejected as in the case of linear regression. Listed foundation-owned firms and non-listed foundation-owned firms do not differ in their performance. If the family is still active in management of a firm, the regression coefficient has a strong positive influence on firm performance. However, since these effects are unfortunately no longer significant, the median regression leads to the rejection of hypothesis 3. The significantly negative effect of the debt-to-equity ratio and the significantly positive effect of sales growth will be maintained.

Due to the high correlation between performance indicators and sales growth (see table 4-3), we run a post hoc analysis investigating the impact of type of foundation, family and stock exchange listing on sales growth. The results are summarized in Table 4-6.

Table 4-6: Regression results for sales growth as dependent variable

	Sales growth	
	Coeff.	*Std. Err.*
Charitable foundation	0.033	0.035
Listed foundation-owned firm	-0.003	0.043
Family management	0.039	0.037
Manufacturing	-0.031	0.035
Retail	-0.021	0.053
Other industries	-0.021	0.039
Foundation shares	**0.077****	0.036
Firm size	0.0252	0.016
Firm age	**0.001****	0.001
Debt-equity-ratio.	**0.001*****	0.623
R square	0.187	
N firms	142	

*** p<0.01, ** p<0.05, * p<0.1

The amount of foundation shares, the debt-equity ratio and the firm age show a positive influence on sales growth. The results show that neither the nature of the foundation, nor the family influence or listing on the stock exchange have an effect on sales growth. The results do not change significantly using employee growth dependent variable. Therefore, we can conclude that firms that have private foundations as shareholders outperform firms that are held by charitable foundations but do not differ in growth aspects.

4.6 Summary

Main results

The results of the analysis show that foundation-owned firms that are owned by family foundations outperform foundation-owned firms that are owned by charitable foundations. These results are in line with the theoretical derivation that charitable foundations lack the managerial know-how to effectively control management (Achleitner, Bazhutov, Betzer, Block and Hosseini 2018). It is surprising that it has no effect whether or not a firm is listed on the stock exchange. If the founding family is still active in the firm's management, we find positive effects on firm performance. The effects are unfortunately not significant, but show a clearly positive trend. The number of shares held by the foundation has no influence on performance. However, one can observe that the number of shares decreases when firms are listed on the stock exchange

Implications for theory and practice

With these results, this study contributes to research about foundations as firm owners (Draheim 2016; Eulerich 2015; Fleschutz 2009; Hermann 1996). We extend the literature on the performance implications of foundation ownership (Dzansi 2012; Herrmann and Franke 2002; Thomsen 1996; Thomsen and Rose 2004). To the best of our knowledge, this study is the first and only one that focuses on performance differences within the group of foundation-owned firms and makes it clear that this group is heterogeneous on a quantitative level.

Therefore, even more attention should be paid in future to the differences within foundation-owned firms. For instance, other classifications or even more firm data could be collected. There are also exciting implications for practice. Potential founders could learn from this study that they would do better to leave their firm in the hands of a family foundation if they are profit-orientated. Although this leads to a loss of charitable status and the associated tax benefits, these benefits are so small that they are clearly offset by the firm's higher performance. In addition, the family foundation provides the founding family with even better care. However, if the potential founders are pursuing hybrid goals in transferring their firm into a foundation and want to fulfil charitable purposes in addition to securing the firm, then they should choose a charitable foundation. A charitable foundation can also provide the family with up to 25 percent of the dividend.

Limitations and future research

Our event study suffers from two main limitations. First, we have a relatively small sample size. This is because the number of foundation-owned firms is still relatively small and we are unable to find more foundation-owned firms that publish their accounting data. The phenomenon of foundation-owned firms is still relatively new, although we believe this will change in the future since the interest in foundations as firm owners is growing steadily. Second, we cannot distinguish between a selection effect and a treatment effect in our results. This means that we cannot explain whether poorer performing firms are more likely to choose a charitable foundation or whether the charitable foundation is responsible for the poor performance.

Our study opens several avenues of further research. First, it would be interesting to conduct our study with firms from different countries and regions. Scandinavia, particularly, would be a good choice, as it has a similar structure of foundation-owned firms. Second, the different types of foundation-owned firms can be distinguished separately in terms of performance and stakeholder orientation from family firms and other types of firms.

5. Foundation ownership and shareholder value: The case of listed foundation-owned firms[5]

5.1 Introduction

Some foundation-owned firms like Bosch, Bertelsmann, and Würth Group, are global players and are very important for their respective regions or countries. Some of those foundation-owned firms are also listed on the stock market (e.g. Carl Zeiss, Thyssenkrupp, Erste Bank Group, and Kuoni).

So far, however, little is known about the shareholder value effects of foundation ownership. This is an important oversight, as foundations differ from other blockholders in important aspects. For instance, foundations usually lack residual claimants (Franke and Draheim 2015). This can result in problems monitoring the management of the firm and can increase agency costs. The lack of a residual claimant and the agency problems associated with it can also lead to a stronger stakeholder and employee orientation (Børsting and Thomsen 2017; Franke and Draheim 2015). Furthermore, foundations may face higher legal restrictions than other blockholders. In several cases, foundations are bound by their charter to always retain a majority of shares or voting rights in the firm. Finally, some foundations have charitable purposes. This can lead to conflicts of interest between the foundation's charitable and the firm's economic goals.

Our study investigates the shareholder value effects of foundation ownership. We focus on announcements made by foundations to increase or decrease their firm ownership shares and use an event study method to determine shareholder value effects. We find that equity

[5] This chapter represents a revised version of published paper (Review of Managerial Science) in collaboration with Ann-Kristin Achleitner (Technical University Munich), Dmitry Bazhutov (University of Wuppertal), André Betzer (University of Wuppertal) and (Jörn Block (Trier University).

markets show a positive reaction following a foundation's announcement to decrease its ownership share, whereas we find no reaction following a foundation's announcement to increase its ownership share. In the next step, we analyze the announcements of non-foundation blockholders, which have an equity stake in our sample firms. The results show strong differences between foundation and non-foundation blockholders in the shareholder value effects of ownership share related announcements, supporting the view that equity markets view foundations as a special group of blockholders. By splitting our sample into foundation ownership under 25% and over 25%, the results remain robust. However, the announcement of a foundation holding an equity stake of less than 25% to decrease its firm ownership share has a more positive effect on shareholder value than the announcement of a foundation holding more than 25% of equity. In further robustness checks related to the 25% threshold, we compare the effects of announcements made by foundations to decrease their firm ownership shares with the effects attributed to announcements of other blockholders from foundation-owned firms in our sample as well as from non-foundation-owned firms. The results confirm again that foundations as shareholders have an adverse effect on shareholder value compared to other blockholders.

This study contributes to the large blockholder literature about the shareholder value effects of blockholder ownership (Morck et al. 1988; Shleifer and Vishny 1997; Thomsen et al. 2006). Prior research has not treated foundations as a separate and specific category of blockholders. We show that the shareholder value effects of foundation ownership have to be distinguished from the shareholder value effects of other forms of blockholder ownership. Our study also contributes to the small but growing literature on the performance of foundation-owned firms. Prior studies have investigated the accounting performance of foundation-owned firms (Dzansi 2012; Herrmann and Franke 2002; Thomsen 1996; Thomsen and Rose 2004). To the best of our knowledge, our study is the first and only one that focuses on the equity market performance of foundation-owned firms using an event study method. As many foundation-owned firms have hybrid goals, we also contribute to research about the performance effects of hybrid organizations (Battilana and Lee 2014; Achleitner and Block 2018).

The rest of this study proceeds as follows: Section 2 defines and introduces foundation-owned firms and gives a brief summary of prior research on the performance of foundation-owned firms. Section 3 develops hypotheses about the shareholder value effects of foundation ownership. Section 4 introduces our data and the event study method. Section 5 reports the results of our empirical analyses. Section 6 discusses our results and concludes.

5.2 Literature Review

The literature review is comprised of three parts. The first part defines foundation-owned firms as a particular group of firms and provides some background about their unique characteristics. The second part summarizes prior research about the (accounting) performance of foundation-owned firms. The third part summarizes event study results about the shareholder value effects of blockholder ownership.

<u>Definition and characteristics of foundation-owned firms</u>

Foundation-owned firms are firms that are partly or fully owned by foundations (Herrmann and Franke 2002; Thomsen 2012). The foundation is typically created by a firm's founder or founding family who transfer their equity stake into a foundation. In many cases, the foundation is created to solve firm succession problems (Fleschutz 2009). The founder may not have an appropriate heir in his or her family (Kronke 1988; Fleschutz 2009; Haftlmeier-Seiffert 2018), may want to avoid or circumvent family-related succession conflicts (Davis and

Harveston 2001), or does not want to sell the firm to outside investors, such as competitors or private equity firms (Klöckner 2009; Scholes et al. 2010).

Foundations are institutions without shareholders or owners. They can be subdivided into private and charitable foundations. Private foundations owning firms are typically family foundations. The main purposes of family foundations are to maintain the wealth of the founding family and to avoid family conflicts (Børsting et al. 2016; Davis and Harveston 1999, 2001). The firm distributes its dividends to the foundation, which it then distributes to the family. The family is typically represented on the foundation's board, but it no longer has a direct equity stake in the firm. The latter makes it impossible for the family to sell the firm to outside investors. In this way, the firm remains independent and avoids problems related to family conflicts. The family, however, loses the possibility to influence the firm's management and strategy.

Instead of transferring the equity into a family foundation, the founder or founding family may alternatively decide to transfer the equity into a charitable foundation. The foundation then uses the dividends it receives from the firm for charitable purposes, as defined in the foundation charter. The final beneficiaries of the dividends have no control or voting rights to influence the decisions of the foundation or the foundation-owned firm, which is in stark contrast to other firm owners, who are typically individuals with residual claims and control rights (Thomsen 1999). The board members of charitable foundations are typically people with a professional background in the non-profit sector. These people might be incapable of effectively monitoring the firm's management, as they may lack the entrepreneurial, industry, and management know-how needed for effective corporate governance (Franke and Draheim 2015). In such a situation, a lack of corporate control can occur, which provides opportunities for other stakeholders, such as the firm's employees or management, to pursue their own interests at the expense of the firms' development and profitability. Previous studies show, that foundation-owned firms have more employees, pay higher wages, offer more secure jobs, have higher reputation, and show more responsible business behavior when compared to other firms of similar size (Franke and Draheim 2015; Børsting and Thomsen 2017). Surprisingly, however, previous studies about the accounting performance of foundation-owned firms show that foundation-owned firms perform similarly to other firms (Thomsen 1996, 1999; Herrmann and Franke 2002; Thomsen and Rose 2004), even though classical agency theory would predict a strong underperformance due to lack of control leading to moral hazard and higher agency costs.

The foundation charter is an important characteristic of foundation-owned firms. The charter is influenced by the spirit and will of the founder of the foundation (and the firm) and is difficult to change after his or her death. In many cases, the foundation charter obliges the foundation to retain a majority of the firm's shares (Thomsen and Hansman 2013). For this reason, foundation-owned firms can face problems when trying to raise equity capital or engage in M&A activities. Conversely, the fact that the foundation charter is very difficult to change is also an effective protection against (hostile) takeovers (Thomsen and Rose 2004). This may lead to the adoption of a more long-term oriented strategy by foundation-owned firms versus other firms, which can be a benefit for shareholders and create shareholder wealth (Graves and Waddock 1990). To conclude, it is a priori unclear how equity markets perceive foundation charters and the restrictions that are associated with them.

The special governance structure of foundation-owned firms together with the absence of any legal obligation for foundations to make the foundation charter publicly accessible creates a lack of transparency. This lack of transparency and the resulting uncertainty for investors presents a unique challenge for foundation-owned firms listed on the stock market. Equity investors might be afraid or unwilling to invest in a firm with an uncommon and nontransparent governance structure. A detailed literature review on the performance of foundation-owned firms can be found in chapter 4.2.

Shareholder value effects of blockholder ownership

Two perspectives exist on the shareholder value effects of blockholder ownership: The convergence-of-interest hypothesis (Morck et al. 1988; De Miguel et al. 2004) suggests that foundation ownership shall have a positive effect on shareholder value. Foundations as owners have both the incentive and the power to effectively monitor a firm's management (Jensen and Meckling 1976; Zeckhauser and Pound 1990). The entrenchment hypothesis (Morck et al. 1988), however, suggests the opposite. Concentrated ownership may lead to an entrenchment of blockholders and managers, resulting in an expropriation of minority shareholders (Morck et al. 1988; Shleifer and Vishny 1997).

There exists an established literature using event study methods to measure the shareholder value effects of blockholder ownership. Most of these studies find a positive effect (Holderness and Sheehan 1988; Lewellen et al. 1985; Agrawal and Mandelker 1990; Barclay and Holderness 1990; Bethel et al. 1998; Holderness 2003). Some studies focus on particular types of blockholders. Achleitner et al. (2011) and Renneboog et al. (2007), for example, investigated the wealth effects of private equity ownership in Germany and the UK and find positive effects. Similar results are obtained for hedge funds as firm owners (Bessler et al. 2015; Brav et al. 2008). With regard to banks as blockholders, the findings are mixed. Boehmer (2000) report that banks only have a positive effect on shareholder value if there exists a second blockholder in the firm. Regarding families as blockholders, Basu et al. (2009) and Chang et al. (2010) find that family ownership per se has a positive effect on shareholder value, which, however, reduces in situations where ownership and control are separated.

To the best of our knowledge, our study is the first one focusing on the shareholder value effects of foundation ownership using an event study method.

5.3 Hypotheses about shareholder value effects of foundation ownership

This section develops hypotheses about the shareholder value effects of foundation ownership. We develop two basic hypotheses about the shareholder value effects of foundation ownership. Hypothesis 1 concerns the abnormal returns following the announcement by a foundation that it intends to increase its equity stake; hypothesis 2 refers to the abnormal returns following a foundation's announcement that it intends to decrease its equity stake.

Foundations as firm owners are typically large shareholders (Dzansi 2012; Thomsen 2016). Like other blockholders, such as families or private equity firms (Maury and Pajuste 2005), foundations should have a strong incentive to monitor the firm in an efficient and effective way. They cannot easily sell their equity stake and should thus have a long-term investment horizon (Laverty 1996). These characteristics should reduce agency costs between ownership and management, thereby resulting in a positive effect on shareholder value. On the other hand, as discussed in the previous section, foundations are not the residual claimants of their ownership stake (Thomsen 1999). Foundations act on behalf of their founders, who are often no longer alive. Foundations do not use the received dividends for themselves, but rather distribute them to either charitable projects or to families or individual persons. Cases like this, where a residual claimant is missing, reduce the monitoring incentives for foundations and can lead to situations in which a firms' management or other stakeholders pursue their own interests, to the detriment of shareholders. In particular the stakeholder group of employees might benefit from such a situation. Prior research shows that foundation-owned firms have more employees, pay higher wages, and typically offer more secure jobs than other firms of similar size (Franke and Draheim 2015; Børsting and Thomsen 2017).

Another argument concerns the inflexible nature of foundations as shareholders. As it is difficult for foundations to sell their equity stake, and because the foundation charter typically forces them to be a majority or at least a blocking shareholder, it is difficult for foundation-owned firms to raise additional equity capital. This reduces growth possibilities for the firm and can have a negative effect on shareholder value (Agrawal and Knoeber 1996). From the firm's perspective, it can be argued that the foundation's inflexibility as shareholder provides an effective takeover defense, making the firm less likely to be a (hostile) takeover target. This situation, however, makes the stock less appealing to some investors and can lead to stock price discounts (Bebchuk et al. 2009). In other words: foundation-owned firms have a lower probability of being acquired; the market expects this leading to a lower expected acquisition premium.

Finally, foundations as firm owners are mostly unknown to equity markets, thus creating uncertainty. The institution of foundation ownership is uncommon in most countries and uncommon to most investors. This uncertainty further increases because foundations typically have a very broad and heterogeneous set of goals. Prior research shows that equity markets do not like uncertainty and put a discount on stocks associated with uncertainty (Baltussen et al. 2014).

Following this collection of arguments, we posit two hypotheses. The first hypothesis concerns the shareholder value effects (measured as abnormal returns) of an announcement by a foundation to *increase* its equity stake. We posit:

H1: *The announcement by a foundation to increase its equity stake leads to negative abnormal returns.*

The second hypothesis concerns the shareholder wealth effects (measured as abnormal returns) of an announcement by a foundation to *decrease* its equity stake. In line with the arguments above, we posit:

H2: *The announcement by a foundation to decrease its equity stake leads to positive abnormal returns.*

5.4 Event study method

We use the event study method to investigate how equity markets evaluate listed foundation-owned firms. In particular, we aim to identify the wealth effects of changes in equity stakes held by foundations in their respective firms, if any such effects exist. In comparison to regression analysis using Tobin's q as dependent variable, the event study approach allows us to measure the direct value effects attributed to the transaction announcements, instead of relying on a performance proxy based either on quarterly or (semi-) yearly data determined by a variety of other factors.

Following Brown and Warner (1980, 1985), the abnormal returns ($AR_{i,t}$) used to capture the effects of transaction announcements are calculated by applying the market model. Hence, the expected returns of the investigated securities ($E\left[R_{i,t}\right]$), which constitute the hypothetical returns in the absence of the event, are approximated by using a market portfolio, in our case, the S&P Europe 350, as a comprehensive European stock market index. Assuming the market efficiency proposed by Fama (1970), we calculate the wealth effects of an intended change in a foundation's equity stake for a firm i on day t by subtracting the expected return from the actual (realized) return of the corresponding security ($R_{i,t}$):

$$AR_{i,t} = R_{i,t} - E[R_{i,t}] \tag{1}$$

$$E\left[R_{i,t}\right] = \hat{\alpha}_i + \hat{\beta}_i R_{M,t} \tag{2}$$

We use an estimation window of 180 days (from t = -200 till t = -21) to obtain the OLS parameters $\hat{\alpha}_i$ and $\hat{\beta}_i$ by conducting regressions of the firm's actual returns on the market portfolio returns ($R_{M,t}$) within this pre-event period. We define the first date on which the transaction becomes known as our event day (t = 0). Since we are interested in the average wealth effect of the announcements for our entire sample, the average abnormal return (AAR_t) is calculated for each day t of the time period surrounding the actual announcement (from t = -20 till t = 20):

$$AAR_t = \frac{1}{N}\sum_{i=1}^{N} AR_{i,t} \tag{3}$$

We distinguish between two types of announcements, namely, between increases and decreases in equity stakes held by foundations. Consequently, N represents the total number of firms that are subject to the aforementioned increases or decreases in foundation ownership.

In the next step, we calculate the cumulative average abnormal returns (CAAR) within the event window (from T_1 till T_2) in order to obtain the full average wealth effect for the foundation-owned firms:

$$CAAR_{[T_1,T_2]} = \sum_{t=T_1}^{T_2} AAR_t \tag{4}$$

To deal with the event date uncertainty issues discussed by e.g. MacKinlay (1997), we apply several event windows around the announcement day.

The statistical significance of the obtained results is evaluated by conducting the standardized cross-sectional test of Boehmer, Musumeci, and Poulsen (BMP) (1991). This parametric test statistic uses the standard deviation obtained from the estimation window (adjusted for the forecasting error) to standardize the residuals, which improves the test's efficiency and power:

$$SAR_{i,t} = \frac{AR_{i,t}}{S_{i,t}} \tag{5}$$

$$S_{i,t} = \sqrt{\hat{\sigma}^2_{AR_i}\left[1 + \frac{1}{L} + \frac{(R_{M,t} - \bar{R}_M)^2}{\sum_{t\,=\,-200}^{t\,=\,-21}(R_{M,t} - \bar{R}_M)^2}\right]}\;, \tag{6}$$

where $\hat{\sigma}^2_{AR_i}$ is the individual variance of abnormal returns derived from the estimation window, whose length is constituted by L.

Furthermore, in contrast to the simple t-test presented by Brown and Warner (1980), the BMP statistic does not assume the event-induced variance to be insignificant and, thus, it allows for respective variance changes, which may be critical for our application. Consequently, we calculate the BMP test as follows:

$$T_{BMP} = \frac{\frac{1}{N}\sum_{i=1}^{N} SAR_{i,t}}{\sqrt{\frac{1}{N(N-d)}\sum_{i=1}^{N}(SAR_{i,t} - \frac{1}{N}\sum_{j=1}^{N} SAR_{j,t})^2}}, \tag{7}$$

where the denominator is the contemporaneous standard error and d is the number of parameter estimates. In order to evaluate the null hypothesis, which states that the CAAR equals zero, the test statistic for cumulated average residuals is conducted accordingly.

For robustness purposes, we also use a non-parametric test proposed by Cowan (1992). This test (also known as the Generalized Sign (GS) test) evaluates the null hypothesis that the ratio of positive cumulative abnormal returns within the event window (p_0^+) does not systematically deviate from such ratio obtained from the estimation period (p_{EST}^+). Taking into account a possible asymmetric distribution of excess returns, the statistic is defined as:

$$T_{GS} = \frac{p_0^+ - p_{EST}^+}{\sqrt{p_{EST}^+\,(1 - p_{EST}^+)/N}} \tag{8}$$

The results of BMP as well as GS test will be simultaneously reported in the next section.

5.5 Sample and results of the event study analysis

Sample of listed foundation-owned firms and sample of events

The focus of our study is on the three German speaking countries Germany, Austria, and Switzerland. We started with a list of German foundation-owned firms generated from Fleschutz (2009) and Besecke (2015) and checked the ownership structure of those firms listed in the DAX, MDAX, SDAX and TecDAX to identify all foundation-owned firms listed on the German stock market. We cross-checked and verified this sample of listed foundation-owned firms with data from the Federal Financial Supervisory Authority (BAFIN). To include listed foundation-owned firms from Austria and Switzerland in our sample, we examined the ownership structure of all firms listed on the Austrian (ATX, IATX) and Swiss (SMI, SPI, SLI) share indexes. For the identified firms, we then used the LexisNexis database and other data sources to identify relevant events referring to announcements about intended changes in foundation ownership.

Our events of interest are announcements by foundations to either increase or decrease their equity stakes in foundation-owned firms. As an example of such an event where the foundation announces its intention to increase its equity stake, consider the announcement by the Alfried Krupp von Bohlen und Halbach Stiftung (ThyssenKrupp) to increase its equity stake from 20.6% to 25% (2007). Another example is the announcement of the Alfried Krupp von Bohlen und Halbach Stiftung not to participate in the firm’s equity capital increase, which resulted in the foundation losing its blocking minority (2013).

Following this procedure, we were able to produce an initial sample of 83 events. These events occurred between 1993 and 2016. Because the necessary price data was missing for two of the aforementioned events, we had to drop those from our sample. Our final estimation sample thus covers 81 announcements from 29 listed foundation-owned firms. Of the 81 events, 41 events are related to announcements by foundations to increases their equity stakes and 40 events refer to announcements about decreases in equity stakes. Table A4 in the Appendix shows the names of the firms in our sample and the corresponding events. We also denote events related to common and to preferred stock (4 events). To be accurate, we exclude the events attributed to a preferred stock from the analysis of the 25% threshold. In addition, the information on the equity stake was not available for one event. This results in 41 events for foundation-owned firms with above 25% foundation ownership and 35 events below 25%. To check the robustness of our results and to show that our results are not driven by blockholder ownership per se, we produced a control sample with announcements about changes in equity stakes related to other blockholders of the firms investigated in our study. Other blockholders refer to other larger shareholders which are not foundations. The final control sample covers 75 announcements, out of which 40 events refer to announcements by other blockholders to increase their equity stakes and 35 events relate to announcements about equity stake decreases. The names of the firms and the respective events are provided in Table A4 and A5 in the Appendix. Table 5-1 shows the composition of both the main and the control sample.

Table 5-1: Sample description

Sample	N of events (all announcements)	N of events (announcements of equity stake increases)	N of events (announcements of equity stake decreases)
Foundations	81	41	40
Other blockholders	75	40	35

Event study results for foundations

Table 5-2 reports the event study results. The second column provides the (C)AARs for six different event windows; columns 3 and 4 report the results of the BMP and GS tests, respectively.

The results show that no meaningful shareholder value effects can be observed when a foundation announces an increase in its equity stake. The stock price decreases by only 0.02%

on the announcement day and by 0.12% within the 7-day event window around the announcement. Using other event windows, such as the 3-day event window, we find weak positive stock price reactions. These announcement effects are, however, statistically insignificant, as the results of the BMP and GS tests show. On the other hand, the announcement by a foundation to decrease its equity stake has a statistically and economically significant effect. We find that such an announcement by a foundation leads to a cumulative average stock price increase of 2.20% within the event window which starts on the event day and ends three days after the announcement (BMP test is significant at 1% level; GS test is significant at 5% level). This finding is further supported by the positive CAAR for the 7-day event window (1.77%; BMP test is significant at 5% level), the 5-day event window (2.02%; BMP test is significant at 10% level; GS test is significant at 5% level), the 3-day event window (0.82%; GS test is significant at 5% level), and the 2-day event window (0.81%; BMP test is significant at 5% level; GS test is significant at 10% level), respectively.[6]

[6] We receive qualitatively very similar results after the exclusion of 4 events (see appendix for the exact events) attributed to preferred shares. The results can be obtained from the second author.

Table 5-2: Event study results of main sample (including foundations)

Announcements of equity stake increases (N of events: 41)

Event window	CAAR	BMP test	GS test
(-3...3)	-0.12%	0.7163	0.3885
(-2...2)	0.66%	0.4041	0.1367
(-1...1)	0.15%	0.7473	0.8131
(0...0)	-0.02%	0.9021	0.5827
(0...1)	0.36%	0.3541	0.5827
(0...3)	0.67%	0.1506	0.3885

Announcements of equity stake decreases (N of events: 40)

Event window	CAAR	BMP test	GS test
(-3...3)	1.77%	0.0478**	0.5550
(-2...2)	2.02%	0.0525*	0.0299**
(-1...1)	0.82%	0.3974	0.0299**
(0...0)	0.27%	0.2123	0.1238
(0...1)	0.81%	0.0300**	0.0636*
(0...3)	2.20%	0.0018***	0.0299**

*** p<0.01, ** p<0.05, * p<0.1

Event study results for other blockholders

To assess whether the ascertained announcement effects can be attributed to special characteristics of foundations as shareholders, we additionally analyze shareholder value effects related to announcements of ownership changes by other blockholders. For this purpose, we were looking for events for all non-foundation blockholders holding shares in foundation-owned firms that are included in our sample. As with the other event study analyses above, we calculate the abnormal returns for six different event windows.

Table 5-3 shows the results of this analysis. First of all, we find that equity stake increases announced by a second largest shareholder are associated with persistently positive abnormal returns. The stock price increases by 0.44% on the announcement day (BMP test is significant at 10% level), by 1.06% within the 2-day event window (BMP test is significant at 5% level; GS test is significant at 10% level), and even by 1.14% within the event window starting on the event day and ending three days after the announcement (BMP test is significant at 5% level). For other event windows, the stock price reactions are also positive, but statistically insignificant. When a blockholder announces that he or she will decrease his or her equity stake, negative CAARs can be observed in contrast to positive stock price reactions to such announcements made by foundations. The negative stock price effects ascertained for other blockholders are, however, statistically insignificant for all event windows used in our study. In sum, it seems that capital markets attribute different characteristics to foundations as blockholders in comparison to other blockholders and, as a result, the announcement returns associated with changes in foundation ownership differ from those identified for other blockholders active in foundation-owned firms.

Table 5-3: Event study results of control sample (including other blockholders)

Announcements of equity stake increases (N of events: 40)			
Event window	CAAR	BMP test	GS test
(-3...3)	1.46%	0.1942	0.8288
(-2...2)	0.64%	0.7456	0.2940
(-1...1)	0.34%	0.6934	0.2438
(0...0)	0.44%	0.0660*	0.5943
(0...1)	1.06%	0.0362**	0.0721*
(0...3)	1.14%	0.0499**	0.2438
Announcements of equity stake decreases (N of events: 35)			
Event window	CAAR	BMP test	GS test
(-3...3)	-0.58%	0.3969	0.6181
(-2...2)	-0.28%	0.7008	0.3920
(-1...1)	-0.33%	0.7942	0.6049
(0...0)	-0.34%	0.9991	0.8729
(0...1)	-0.55%	0.8513	0.3920
(0...3)	-0.82%	0.3714	0.2397
			*** p<0.01, ** p<0.05, * p<0.1

Difference-in-means test results

Finally, we use the difference-in-means test to determine whether the divergences in stock price reactions ascertained for announcements by foundations and other blockholders to increase or decrease their equity stakes are also statistically significant. Table 5-4 reports the results of this analysis. The second column summarizes the (C)AARs for announcements by foundations and the third column summarizes the (C)AARs for announcements by other blockholders; column 4 reports the differences between the (C)AARs for the two groups and indicates their statistical significance based on the one-sided test procedure. With regard to announcements of increases in equity stakes, the mainly negative differences in the stock price effects, which indicate less positive or even negative announcement returns for foundations compared to other blockholders, are all insignificant. On the other hand, the persistently positive differences between the stock price reactions attributed to announcements of equity stake decreases by foundations compared to other blockholders are significant for several event windows investigated in our study. This particularly applies to the differences ascertained for the 7-day event window (2.35%; t-test is significant at 5% level), the 5-day event window (2.30%; t-test is significant at 5% level), the 4-day event window (3.02%; t-test is significant at 1% level), and the 2-day event window (1.36%; t-test is significant at 10% level). These results corroborate our finding that foundations are a special type of blockholder.

Table 5-4: Difference-in-means test results (including foundations and other blockholders)

Announcements of equity stake increases

Event window	CAAR Foundations (N of events: 41)	CAAR Other blockholders (N of events: 40)	Difference in CAAR (one-sided test)
(-3...3)	-0.12%	1.46%	-1.58%
(-2...2)	0.66%	0.64%	0.02%
(-1...1)	0.15%	0.34%	-0.19%
(0...0)	-0.02%	0.44%	-0.46%
(0...1)	0.36%	1.06%	-0.70%
(0...3)	0.67%	1.14%	-0.47%

Announcements of equity stake decreases

Event window	CAAR Foundations (N of events: 40)	CAAR Other blockholders (N of events: 35)	Difference in CAAR (one-sided test)
(-3...3)	1.77%	-0.58%	2.35%**
(-2...2)	2.02%	-0.28%	2.30%**
(-1...1)	0.82%	-0.33%	1.15%
(0...0)	0.27%	-0.34%	0.61%
(0...1)	0.81%	-0.55%	1.36%*
(0...3)	2.20%	-0.82%	3.02%***

*** p<0.01, ** p<0.05, * p<0.1

Post-hoc analysis and robustness checks

In a post-hoc analysis we distinguish between foundation-owned firms where a foundation owns an equity stake above 25% and those where a foundation owns less than 25%. The 25% threshold refers to the situation before both the announcement and the transaction. This analysis is applied to get a more detailed overview of our previous results. We chose 25% as a threshold because an equity stake of more than 25% is essential for several important decisions taken at the annual shareholders' meetings of German stock firms, such as bylaw changes and capital increases (§179 Abs. 2, 182 Abs. 1 AktG). Table 5-5 reports the results attributed to the respective sample split. First of all, we find that our previous results are robust and that an announcement by a foundation to decrease its equity stake has a significantly positive effect on shareholder value, both for foundation-owned firms in which a foundation holds more than 25% of firm's shares and for those in which it holds less than 25% of shares. For an announcement of a foundation to increase its ownership share, we again find no significant effect. In addition, the results show that the positive announcement effects of equity stake decreases are stronger if a foundation holds less than 25% of firm's shares.

Table 5-5 Event study results of sample split (main sample)

Announcements of equity stake increases		
Event window	CAAR Under 25% (N of events: 23)	CAAR Over 25% (N of events: 17)
(-3...3)	-0.56%	-0.05%
(-2...2)	-0.10%	1.04%
(-1...1)	-1.37%	1.40%
(0...0)	-0.12%	-0.05%
(0...1)	-0.07%	0.37%
(0...3)	0.97%	0.03%

Announcements of equity stake decreases		
Event window	CAAR Under 25% (N of events: 12)	CAAR Over 25% (N of events: 24)
(-3...3)	5.07%**	-0.20%
(-2...2)	5.51%*** (+)	0.04%
(-1...1)	1.38%	0.31%
(0...0)	-0.63%	0.68%**
(0...1)	-0.30%	1.28%*** (+)
(0...3)	3.37%** (+)	1.45%*

BMP test *** p<0.01, ** p<0.05, * p<0.1
GS test +++ p<0.01, ++ p<0.05, + p<0.1

In the next step, we use the difference-in-means test to assess whether the significant divergences in stock price reactions ascertained for announcements by foundations and other blockholders to decrease their equity stakes still exist after the sample split based on the 25% threshold. We focus our analysis on equity stake decreases, as no meaningful shareholder value effects for foundation-owned firms as well as no significant differences to the control sample could be found with equity stake increases. Table 5-6 reports the results of this analysis. In sum, significant differences can still be observed between foundations and other blockholders for both equity stakes above 25% and below 25%, thus corroborating our previous findings. However, the results for the equity stakes above 25% should not be overinterpreted, as only 3 events are available for other blockholders.

Table 5-6 Difference-in-means test results of sample split (including foundations and other blockholders in foundation-owned firms)

Announcements of equity stake decreases

Over 25%

Event window	CAAR Foundations (N of events: 24)	CAAR Other blockholders (N of events: 3)	Difference in CAAR (one-sided test)
(-3...3)	-0.20%	-1.20%	1.00%
(-2...2)	0.04%	-0.24%	0.28%
(-1...1)	0.31%	-1.07%	1.38%
(0...0)	0.68%	-2.53%	3.21%***
(0...1)	1.28%	-4.66%	5.95%***
(0...3)	1.45%	-5.42%	6.87%***

Announcements of equity stake decreases

Under 25%

Event window	CAAR Foundations (N of events: 12)	CAAR Other blockholders (N of events: 11)	Difference in CAAR (one-sided test)
(-3...3)	5.07%	-1.94%	7.01%**
(-2...2)	5.51%	-1.53%	7.04%**
(-1...1)	1.38%	-1.03%	2.41%
(0...0)	-0.63%	-0.35%	-0.28%
(0...1)	-0.30%	-0.31%	0.01%
(0...3)	3.37%	-0.83%	4.20%**

*** p<0.01, ** p<0.05, * p<0.1

To test the robustness of the result for the announcements of equity stake decreases by foundations holding less than 25% of firms' shares, we identified a matching non-foundation-owned firm for each foundation-owned firm in our sample. The matched firms were selected according to the following criteria: industry, firm size (total assets), equity stake, and leverage. Using a further difference-in-means test, we compare the announcement effects of equity stake decreases attributed to foundations holding less than 25% of firms' shares with those attributed to blockholders with an ownership stake of less than 25% in the matched firms. Table 5-7 reports the respective results, which still indicate significant differences between both groups. Therefore, it can be precluded that the shareholder value effects ascertained in our analysis simply result from the specific characteristics of investigated firms and that they can be rather attributed to the peculiarities of foundations as blockholders.

Table 5-7 Difference-in-means test results for announcement of blockholders holding less than 25% to decrease its equity stake (including foundations and other blockholders in matched firms)

Announcements of equity stake decreases Under 25% Event window	CAAR Foundations (N of events: 12)	CAAR Matched firms (N of events: 12)	Difference in CAAR (one-sided test)
(-3...3)	5.07%	-1.44%	6.51%***
(-2...2)	5.51%	-0.62%	6.13%**
(-1...1)	1.38%	-0.40%	1.78%
(0...0)	-0.63%	0.19%	-0.82%
(0...1)	-0.30%	-0.85%	0.55%
(0...3)	3.37%	-2.34%	5.71%***
			*** p<0.01, ** p<0.05, * p<0.1

5.6 Summary

Summary of results and contributions to the literature

Based on the unique and special characteristics of foundations as shareholders, we hypothesized a negative effect of foundation ownership on shareholder value. Our empirical evidence indicates that equity markets show a positive reaction when a foundation announces that it will decrease its equity stake. Our results are strengthened by the fact that announcements about changes in the shareholdings of other blockholders active in our sample firms deliver opposite results. Equity markets are thus skeptical about foundations as blockholders and "celebrate" the news that they intend to reduce their equity stakes. This skepticism by equity markets can be explained in different ways. Equity markets might be skeptical regarding foundations' monitoring capabilities, the goal divergences that exist between foundations and firms, the hybrid nature of the foundations' goals, or the legal restrictions that come with this particular form of firm ownership. Our study is not able to tease apart these different explanations; hence, further research using larger samples and different research designs is needed (see future research below).

With these results, our study contributes to research about foundations as firm owners (e.g. Draheim 2016; Eulerich 2015; Fleschutz 2009; Hermann 1996). We extend the literature on the performance implications of foundation ownership (e.g. Dzansi 2012; Herrmann and Franke 2002; Thomsen 1996; Thomsen and Rose 2004). To the best of our knowledge, our study is the first and only one that focuses on the equity market performance of foundation-owned firms using an event study method. Our study also adds to the broader literature about the performance consequences of blockholder ownership. The blockholder literature has focused on the performance and shareholder value effects of ownership by families (see Wagner et al. 2015 for a meta-analysis), private equity firms (e.g. Achleitner et al. 2011), banks (e.g. Lin et al. 2009), institutional investors (e.g. Mizuno 2010), and venture capital firms (e.g., Dai 2007). Our results show that foundations constitute a special type of blockholder, which has so far been overlooked. Although foundation ownership is currently still a niche phenomenon it already concerns some of the largest firms in German speaking and Scandinavian countries (e.g. Bosch, Zeiss, Ikea, and A. P. Møller-Mærsk). Furthermore, due to the fact that foundation-owned firms are frequently hold by charitable foundations, we also contribute to research about the performance effects of hybrid organizing. In organizational research, there is an ongoing discussion about how organizations can combine multiple identities, goals, and organizational cultures in one organization (Battilana and Dorado 2010; Battilana und Lee 2014; Mair et al. 2015). Our research shows that equity markets are skeptical about foundation-owned firms, which represent a special type of hybrid organization (Achleitner and Block 2018).

Implications for practice

Although our sample is relatively small and the phenomenon of foundation ownership is not common outside Western and Northern Europe, we formulate some tentative ideas for practical implications relating to foundations and foundation-owned firms. Based on our findings that equity markets are skeptical about foundations as shareholders, we suggest that foundations and foundation-owned firms need to explain the benefits of foundation ownership in a more effective way, such as by highlighting the long-term orientation afforded to the firm via foundation ownership. Table A1 in the appendix confirms the assumption that foundation-owned firms distribute lower dividends than non- foundation-owned firms[7]. They may also need to be more transparent about their unique and special corporate governance structure. For most shareholders, foundations are a "black box", which creates uncertainty about their motives and goals. Finally, our results imply that the discount attached to some types of foundation-owned firms might not be justified. In fact, foundation-owned firms may actually be undervalued, thereby constituting an attractive long-term investment, as prior research revealed that foundation-owned firms exhibit similar accounting performance than other firms (e.g. Thomsen 1999; Herrmann and Franke 2002).

Limitations and avenues for further research

Our event study suffers from two main limitations. First, we have a relatively small number of events. This is because the number of listed foundation-owned firms is still relatively small. We were also not able to find announcements of foundation equity stake changes for each listed foundation-owned firm. The phenomenon of listed foundation-owned firms is still

[7] The dividend returns of 20 listed foundation-owned from our sample were compared to 20 matching firms. The results show a significantly lower dividend yield for foundation-owned firms.

relatively small and young, although we believe this will change in the future as the interest in foundations as firm owners is growing steadily. Second, our results are not transferable to other countries, as the legal construct of foundation-owned firms only exists in a few, mostly European countries. Moreover, there are important differences between countries in the legal character of foundations. In the U.S., for example, private foundations or trusts are not allowed to own more than 20 percent of a firm's shares (Fleishman 2003).

Our study opens several avenues of further research. First, it would be interesting to focus on sub-samples of foundation-owned firms and compare the shareholder value effects of private versus charitable foundations. Such a comparison was not possible in our study due to the low number of events in either group. It could be argued that charitable foundations face greater difficulties monitoring the firm's management than private foundations. The reason is that charitable foundations typically employ and are managed by individuals with a professional background in the social or charitable sector, and therefore may not have the expertise to effectively monitor the firm's management. Private (family) foundations, in turn, are typically managed and governed by descendants of the firms' founder. Moreover, it can be argued that the two groups of foundations also differ in the degree to which they are known to capital markets. Family foundations are a common tool used to manage family wealth and are also known to US investors. Moreover, they are often regarded as a special type of family ownership (Villalonga and Amit 2008). By contrast, charitable foundations and their goals as firm owners are less known to equity markets outside of German speaking countries and Scandinavia. This creates uncertainty for many equity investors and can lead to a decrease in shareholder value. To summarize, we would expect listed firms owned by private foundations to be similar to listed family firms, and to be very different from foundation-owned firms owned by charitable foundations. Another direction of future research concerns the (causal) mechanism that underlies our results. Future research could try to find out why equity markets are skeptical of foundation equity ownership. For instance, is this due to foundations' monitoring problems, goal divergences between foundations and firms, foundations being hybrid organizations with multiple goals, or legal restrictions that come with this particular form of firm ownership. Future research can tackle these questions by utilizing larger samples and different research designs. Another avenue of further research would be to focus on different types of events, such as announcements about board changes in foundations. It would also be interesting to investigate our research question in a multi-country setting. Aside from German speaking countries, foundation-owned firms are also common in Scandinavia, and the BeNeLux-countries. It would be interesting to compare the shareholder value effects of foundations across countries. We would expect differences in those effects, as the legal character of foundations differs across countries. Moreover, the Nordic country system of corporate governance differs from the German system of corporate governance, which could affect how equity markets view foundations as firm owners. Finally, one could focus on the effects of foundation ownership on debt markets. As foundations are stable and long-term oriented firm owners, this could have positive implications for foundation-owned firms seeking funding via corporate bonds.

6. Property rights in foundation-owned firms: A qualitative model of “Doppelstiftungen”[8]

6.1 Introduction

Blockholder ownership is widespread throughout the U.S. and Europe. In those firms, blockholders are usually have voting rights and are highly motivated to effectively control the firm's management since they receive a large amount of dividends. In these cases, they act as residual claimants and hinder management from acting opportunistically (Morck, Shleifer and Vishny 1988; Shleifer and Vishny 1997,; Thomsen, Pedersen and Kvist 2006). However, there are firms in which ownership rights are completely separated from capital. This special structure can be found in firms that are fully or partly owned by foundations (Herrmann and Franke 2002; Thomsen 2012) or other non-profit institutions (e.g. Hershey). Some foundation-owned firms, like Bertelsmann, Carlsberg, Ikea and Zeiss, are global players and are important for their respective regions or countries. In some of these firms, a non-profit institution owns all shares of a firm, while the voting rights are completely owned by a second for-profit institution. This for-profit institution acts as a trustee for the non-profit institution and represents its interests in the firm (Eulerich 2016). The for-profit institution is usually staffed by former or current management board members, which means that the management partly controls itself. The non-profit institution that owns the firm has no legal say or control.

According to property rights theory, property rights in a firm should be distributed in such a way that the persons who can benefit most should own them (Edmans and Holderness 2017). This means that in a firm, the control rights and cash flow rights should be bundled within large shareholders, since they are usually highly motivated to control management

[8] This chapter is based on a working paper which is cooperated with Jörn Block (Trier University) and Nadine Kammerlander (WHU Otto-Beisheim School of Management).

because of the dividend (Jensen and Meckling 1976; Zeckhauser and Pound 1990). Due to missing residual claimants in foundation-owned firms, property rights theory cannot explain why an entrepreneur decides in favour of such an enterprise construction—even though this theory was supposed to explain it. Therefore, this chapter aims to answer following research questions regarding this special type of blockholder:

(1) *Why does a founder choose such an assumingly ineffective shareholder structure when, according to existing theory, it should not be effective?* (2) *How can the non-profit shareholder exert influence on the firm despite a lack of voting rights?* (3) *Which conflicts can arise from these indirect influence possibilities and how can the founder prevent them?*

To answer those questions, this study builds on qualitative development of a theoretical model of "Doppelstiftungen" based on interviews with experts and CEOs of foundation-owned firms. This approach is used to generate detailed knowledge about the internal processes in this type of company based on semi-structured interviews and secondary sources. This analysis aims to create a model based on five propositions to explain why a founder chooses this special firm structure, which problems can occur and how they can be mitigated.

This chapter contributes to the extent literature in three ways. First, this paper contributes to the research on blockholder ownership by examining a special type of blockholder that has been previously overlooked in literature and has special characteristics that are different from other blockholders (e.g. due to missing residual claimants within the foundation).

Second, this analysis contributes to the research on property rights by extending the property rights theory. This study shows, that the property rights theory is limited by its inability to explain how and why firms survive, despite the fact that ownership rights are completely separated from capital and there's a lack of residual claimants controlling management.

Third, this study contributes to the literature on foundation-owned firms. Little is known about the internal processes in foundation-owned firms. Most prior research discusses the performance of foundation-owned firms (Thomsen 1996 and 1999; Herrmann and Franke 2002; Franke and Draheim 2005; Achleitner, Bazhutov, Betzer, Block and Hosseini 2018), but there is no theoretical examination of their internal structure.

The structure of this chapter is as follows. The beginning reviews the relevant literature. I move on to describe my qualitative research approach and case company. Drawing on this, I develop our propositions. The model will be presented in next section. Finally, this chapter concludes with a discussion of my results.

6.2 Theoretical Framework

6.2.1 "Doppelstiftung"

In the case of a "Doppelstiftung", two or more legally separate foundations are used as owners of the firm. In general, the charitable, tax-privileged foundation holds most of the capital shares of the firm but only a very small proportion of the voting rights. A private (family) foundation often holds only a small percentage of the capital shares but instead holds the majority of the voting rights (Kögel and Berg 2011). The "Doppelstiftung" is a very popular model because it can compensate for some disadvantages of foundation-owned firms that are only held by one charitable or private foundation. However, this in turn has disadvantages.

The special advantage of the "Doppelstiftung" model is that the shares are held by the charitable foundation and thus taxes can be saved. The fact that the voting rights belong to the family foundation also ensures that the disadvantage, which is due to the often lacking know-how of the persons in the charitable foundation, a lack of control of the management can be avoided. The family foundation is staffed by people with the necessary know-how to ensure effective control. The disadvantage, however, is that the charitable purposes of the foundation could be neglected in this case, since the family foundation can also decide on the dividend. In this special case, the ownership rights are separated from voting rights. As a consequence, the charitable foundation which is receiving the dividend has no control right over the management. This distribution of property rights is not in the sense of the property rights Theory, which is explained in the following section.

6.2.2 Property Rights Theory

There is no common definition of property rights in the literature. In general, property rights define the subject of sanctions for human behavior (standards of behavior) (Furubotn and Pejovich 1972). Property rights are thus the rights of individuals to the use of resources, which are permitted by social norms and laws and can be sanctioned by the state in case of non-compliance (Alchian 1965). In connection to the theory of the firm, you can find a classical and a modern approach of property rights. Classical property rights theory defines ownership as residual rights to income (residual claimancy) (Coase 1960; Demsetz 1967; Alchian and Demsetz 1972), while modern property rights theory that equals ownership with residual control rights over specific firm resources. (Grossman and Hart 1986; Hart and Moore 1990; Hart 1995; McGahan and Porter 1997). Questions of residual claimancy and residual control are central to the definition of ownership (Meyer, Milgrom and Roberts 1992). A residual control right over an asset is defined as the legal right to govern its operation in situations not covered by an explicit preliminary settlement. The party that retains ownership is the party that has the most to benefit from bundling the rights to residual control and the rights to residual returns. Control rights are more stressed than rights to residual income (Hart 1995) since control rights allow the owner of the right to use the asset in any way, as long as specified obligations are satisfied. Whereas the modern approach equates ownership with residual control rights, classical property rights theory, particularly Alchian and Demsetz (1972), define ownership as residual rights to income. Hart (1995) explains that control rights are not divisible while residual rights to income are, and therefore, residual control rights are a stronger concept as a definition of ownership.

Barzel (1997) and Segal and Whinston (2010) as well define control rights as legal rights and the rights to residual income as economic rights. Economic rights are not constant because they are dependent on the efforts of the management. Legal rights are more important because they protect economic rights due to the fact, that the shareholder has the possibility to monitor the management. Therefore, one can conclude from this theory that the ownership rights (especially control rights) should be concentrated at the large shareholder of a firm to ensure that the firm runs optimally (Edmans and Holderness 2017). Property rights theory does not, however, provide solutions to the question of how property rights should be distributed if the owner is a non-profit institution who is not acting as a residual claimant as for example in the case of foundation-owned firms.

6.2.3 Separation of ownership and control

There is a lot of literature on the allocation of property rights in firms with widely dispersed ownership. This concept originates from Berle and Means (1932) and was spread by Baumol (1959), Jensen and Meckling (1976), and Grossman and Hart (1980). In such firms, a separation between control and management is reasonable due to the fact, that otherwise the management could act opportunistically. As described in the property rights theory, control here lies with those shareholders who act as residual claimants and therefore have a high incentive to effectively control management. A more recently published stream in the literature, however, shows that there is a certain concentration of ownership even among the largest corporations (Demsetz 1983; Shleifer and Vishny 1986; Morck et al. 1988). La Porta, Lopez-de-Silanes, Shleifer and Vishny (1999) is the first study that investigates the issue of ultimate control. The results indicate that ownership and control can be separated for the benefit of the major shareholders. However, there are also possible constellations in which separation of ownership and control offers no advantages (Claessens and Djankov 2000). This is often the case in family businesses. There, the family is often the owner and management of the firm (Miller and Le Breton-Miller 2006). But this structure is also meaningful, since here too, in line with the property rights theory, the rights are held by the persons who benefit most from it. Therefore, we see that a separation of ownership and control is sometimes good and other times not. It is only important that both, the decision-making and control rights are always held by the people who benefit most from them.

However, this is not the case in “Doppelstiftungen”. The charitable foundation, as the owner, has no control rights, but also no incentive to control, as the money is spent for non-profit purposes. The charitable foundation which has received the voting rights, consists mainly of management. This controls itself, similar to family businesses. However, the difference is that in contrast to family firms, management does not act as a residual claimant because they do not receive dividends.

6.3 Methodology

6.3.1 Sample and Research Design

In this study, I explore the phenomenon of an entrepreneur’s decision to give his or her shares into a charitable foundation, which has no voting rights at all. Beyond presenting a description of this phenomenon the aim is to build theory by using an inductive approach to create a theoretical model. A qualitative research design is needed for this chapter due to the fact, that I want to answer questions of “how” and “why” rather than “what or “how many” (Yin 1994). To answer those questions a rich pool of qualitative data is needed (Edmondson and McManus 2007). The advantage of this approach is that very detailed data can be used due to the semi-structured interviews with CEO's and a various source of information to describe the phenomenon from different perspectives, which provides me with a deep understanding of this very special corporate structure (Eisenhardt and Graebner 2007). With these information, old theoretical connections can be questioned and novel ones can be discovered (Dyer and Wilkins 1991) in the light of the facts, that classical property rights theory cannot explain this phenomenon. Based on the deep interviews, one can better understand the interrelationships between individuals and institutions and thus gain a better understanding of the whole phenomenon (Yin 2003) and are able to receive sufficient information to build new theory on this special corporate structure and to show how and/or why a phenomenon occurs (Corley & Goia 2004). Therefore, the Goia method which is established very well in qualitative research is used (e.g. Clark, Gioia, Ketchen, and Thomas 2010; Goia, Thomas, Clark, and Chittipeddi 1994; Goia, Price, Hamilton, and Thomas 2010; Corley and Goia 2011).

6.3.2 Data collection

The main data source was semi-structured interviews with directors of foundation-owned firms or directors of the foundations. Furthermore, I conducted interviews with experts such as consultants, professors and former CEO's of foundation-owned firms or foundations. The interviews were in depth in person interviews with two interviewers. The interview guideline was based on extent literature and consisted of three parts. The first part asked about the reason and the motivation of the founder to create such a firm structure. The second part dealt with internal processes in order to identify indirect influence opportunities for the charitable foundation. In the third part, questions was asked about actual and potential conflicts arising from this company construct and how they are or can be prevented. While being grounded in extent literature, I kept the interviews flexible and we motivated our interviewees to provide examples and explain their motivations. All interviews were tape-recorded and were transcribed verbatim. I used additional data such as press articles, foundation charter, book on organizational history and the founder’s biography for data triangulation as suggested by Yin (2003) to increase validity and robustness of our findings (Denzin 1970). Table 6-1 and table 6-2 provide an overview of data sources.

Table 6-1: Data information (Interviews)

Data source	Position of interviewed person	Duration	Interview documentation
Interview 1	CEO of foundation-owned firm with “Doppelstiftung”	0:43 h	Complete transcription
Interview 2	Internal director of foundation-owned firm with “Doppelstiftung”	0:43 h	Complete transcription
Interview 3	CEO of foundation with “Doppelstiftung”	0:21 h	Complete transcription
Interview 4	CEO of other foundation-owned firm	1:19 h	Complete transcription
Interview 5	CEO of other foundation-owned firm	0:41 h	Complete transcription
Interview 6	CEO of other foundation-owned firm	0:24 h	Written notes
Interview 7	Internal director of other foundation-owned firm	0:33 h	Complete transcription
Interview 8	CEO of other foundation	1:05 h	Complete transcription

Interview 9	CEO of other foundation	0:50 h	Complete transcription
Interview 10	CEO of other foundation	0:51 h	Complete transcription
Interview 11	Expert	1:14 h	Complete transcription
Interview 12	Expert	1:28 h	Complete transcription
Interview 13	Expert	2:01 h	Complete transcription
Interview 14	Expert	0:35 h	Complete transcription
Interview 15	Expert	1:24 h	Complete transcription
Interview 16	Expert	0:27 h	Complete transcription

Table 6-2: Data information (Secondary data)

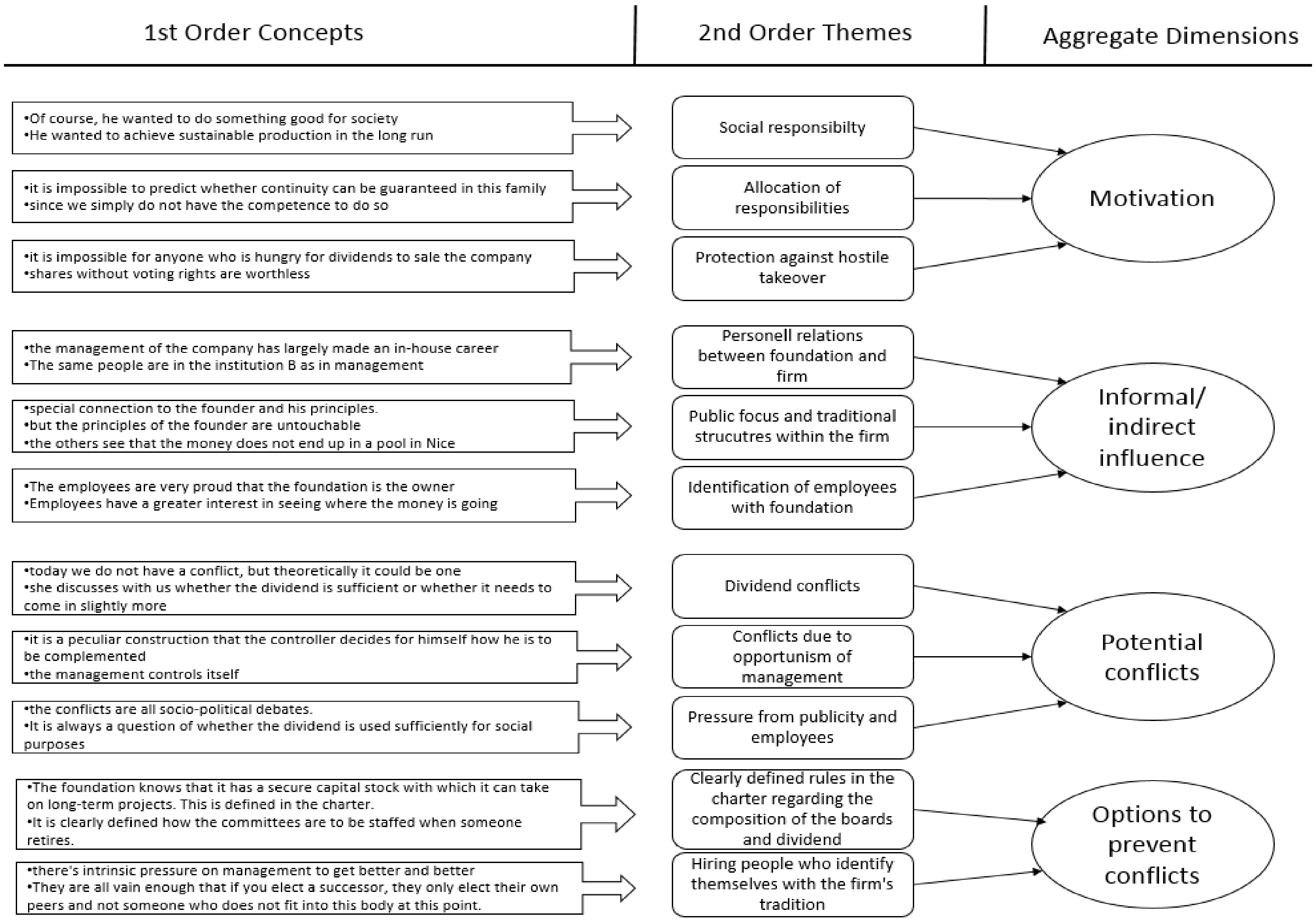
Data Source	**Data Information**
Press articles	15 press articles, 5 of them concerning “Doppelstiftungen” and 10 of them concerning foundation-owned firms in general.
Foundation-charters	Rules laid down by the founders for the firm before the foundation was established
Books on organizational history	704 pages about the historical development foundation-owed firms with inside information
Founder’s biographies	504 pages about the life and characteristics of the founder of foundation-owned firms to get a better understanding on the motivation of the founders

In total, sixteen interviews were conducted. Three of them were with CEO’s of “Doppelstiftungen”, seven interviews were conducted with CEO’s of other foundation-owned firms and six with experts, who are all familiar with the structure of “Doppelstiftungen”. These interviews help to get an objective view of the phenomenon. As already mentioned, I use secondary data to triangulate the findings. Particularly the founder’s biographies helped to understand the reasons for choosing this corporate structure. The foundation charters provide me with the opportunity to understand the mechanism of how the committees are staffed and other internal rules.

6.3.3 Data structure

Figure 6-1 shows the progression of the categorical analysis.

Figure 6-1: Data structure



I analyzed the data using an open-coding approach (Strauss and Corbin 2008), which involved selecting, categorizing and labeling direct statements in first order concepts (van Maanen 1979 using the software MAXQDA. I began this first-order coding by reviewing interview transcripts and archival data to identify passages that represented a fundamental idea or concept. Where possible, to preserve informant-level meanings, I used "in vivo" labels (Strauss and Corbin 2008). When an "in vivo" code was not directly available or would violate confidentiality agreements, I used a simple descriptive phrase. Constant comparative methods were used to compare and contrast data over time and across informants and sources (Glaser 1978). Through this iterative process, I identified 24 first-order codes. Next, I engaged in axial coding (Strauss and Corbin 2008) wherein we searched for relationships between and among these categories to discern themes that might constitute the basis for developing a grounded theory (Goia et al. 1994). Again the software program was used to assemble the first-order concepts into eleven higher-order themes. Finally, I gathered similar themes into four more general overarching dimensions that make up the basis of the surfacing framework: motivation of the founder, informal/indirect influence of the charitable foundation, potential conflicts and founder's options to prevent those potential conflicts.

6.4 Findings

The phenomenom: overview

As explained in the previous chapters, the property rights theory states that the property rights in a firm should be distributed in such a way that they should be owned by the person(s) who can benefit most from them (Edmans and Holderness 2017). This means that in a firm, the control rights and cash flow rights should be bundled within large shareholders, since they are usually highly motivated to control management because of the dividend (Morck et al. 1988;

Shleifer and Vishny 1997; Thomsen et al. 2006). However, there are some firm in which ownership rights are completely separated from capital. In this case, a charitable foundation (Institution A) owns all the shares of a firm, while the voting rights are owned by another institution (Institution B). This institution acts as a trustee for the non-profit institution and represents its interests in the firm (Eulerich 2015). Institution B is usually staffed by former or current members of the management board, meaning the management can partly control itself. The non-profit institution that owns the firm has no legal say or control although it receives the dividend.

In the following sections, I will examine why an entrepreneur transforms his or her firm into such a corporate structure. In addition, I will also examine the extent to which the non-profit institution has a possible informal voice. Finally, I will identify potential conflicts that may arising from such a corporate structure and present solutions for how they can be mitigated.

Motivation for the establishment of this type of company structure

In one foundation-owned firm with "Doppelstiftung" of our sample, the firm founder, who died about 50 years ago, determined 20 years prior to his death that his firm shares had to be separated from the voting rights after his death. It provided for a charitable foundation (Institution A) to receive almost 100 percent of the shares, while another institution (Institution B) - consisting of former and current corporate representatives - would receive almost 100 percent of the voting rights. There are three motives for why he chose this corporate structure. One of the motives is the viewpoint that no individual should bear the overall operational management of the firm. Responsibility should be shared between several competent persons. This would also help avoid family disputes.

> *"He has not created a rigid corset, but rather a very flexible framework, and with this foresight he has also said that even if his descendants were qualified, it is impossible to predict whether continuity can be guaranteed in this family."*
>
> *(Expert)*

In another "Doppelstiftung", the founder wanted to give something back to society by founding charitable foundation, which is entitled to a dividend through its shares in the firm. Since the income of the charitable foundation must be spent entirely on charitable giving, it does not have an owner who acts as a residual claimant. In addition, the bodies of the charitable foundation are staffed with people who have a philanthropic background. They often lack managerial know-how to control the firm.

> *"We will, of course, talk with the management concerning the dividend. But there is no coordination as regards the content of our corporate strategy, since we simply do not have the competence to do so."*
>
> *(CEO of a foundation)*

For this reason, the voting rights were transferred to another institution comprised of former members of the firm's management board. The objective of the institution is to in effect control the firm. This demonstrates the main reason why the founder chose this corporate structure. The firm is protected against hostile takeovers, because the acquisition of shares without voting rights is as unattractive as the acquisition of voting rights without shares.

> *"After all, we have this nice separation and it is impossible for anyone who is hungry for dividends to sale the firm. The person who decides on the dividend has no interest in dividends with a 0.01% interest in the group."*
>
> *(Internal director of a foundation-owned firm)*

This guarantees the independence and long-term security of a firm. As described above, the persons in the charitable foundation have no personal benefit from the dividend, as all income must be invested in charitable purposes. This case demonstrates the limits of property rights theory because the theory cannot be applied to this particular type of company.

Our first proposition summarizes the above logic:

Proposition 1:

Contrary to the classic property rights theory, the entrepreneur might be motivated to separate shares of a firm from voting rights if:

a) The firm shares are transferred to a non-profit institution in which the involved persons do not profit from the dividend and have no managerial know-how to control the firm.

b) The founder wants to protect the firm effectively against hostile takeovers.

c) The founder wants to avoid family conflicts that may arise between descendants regarding corporate strategy or dividends.

How can shareholders influence the firm despite the lack of voting rights?

From a legal perspective, the actual investor, the charitable foundation, has no direct influence on the firm. This means that it has no direct means of representing its interests in relation to the firm. The only exception to this rule is fundamental changes in the statutes, which the charitable foundation must agree to. The basis for this is the legal protection for owners. In addition, the institution with voting rights as deputy of the charitable foundation is subject to a legally defined fiduciary right. Accordingly, the institution must act in the interests of the non-profit-making institution without receiving concrete instructions. It is therefore not subject to any right of instruction (Eulerich 2015).

Nevertheless, there are some indirect ways for investors to influence the firm. In "Doppelstiftungen", there is a high degree of personnel relations between Institution A and Institution B. The persons who act in the committees have often been with the firm for a significant amount of time (usually more than 20 years) and have often served on both committees at different times. This leads to congeniality between firms and encourages an internalized sense of the firm's traditions and adherence to the "spirit of the founder."

> *“In fact, the management of the firm has largely made an in-house career. This, of course, also results in this special connection to the founder and his principles. And you will notice this now under Mr. XY (current CEO). The fact that the firm is reinventing itself in many areas, but the principles of the founder are untouchable.”*
>
> *(CEO of a “Doppelstiftung”)*

For this reason, people work together rather than against each other, and therefore the non-profit institution can also influence corporate decisions despite a lack of voting rights. Another possibility for the charitable foundation to exert influence on the firm results from the high level of awareness and recognition that the institution enjoys both in society and among the firm's employees. Employees often work at the firm because profits are largely used for charitable purposes.

> *“The employees are very proud that the foundation is the owner. And XY (former CEO) once said that this constellation persuaded him to come to us."*
>
> *(CEO of a foundation-owned firm)*
>
> *“Then the others see that the money does not end up in a pool in Nice, but is invested in charitable projects. This point is also very important for employees and is becoming increasingly important. Employees have a greater interest in seeing where the money is going.”*
>
> *(Expert)*

This creates pressure for the charitable foundation, as a low or defaulting dividend could lead to dissatisfaction among the firm's employees. Summarizing the above arguments I posit that:

Proposition 2:

Despite the lack of voting rights, the non-profit shareholder might have indirect influence over the firm through:

a) Long-term personal connections between the individual institutions and the internalization of the tradition and culture of the firm, which makes it interesting to make decisions that are beneficial for both the firm and the non-profit shareholder.

b) The public focus on the non-profit institution as well as the pressure of employees to include the interests of the non-profit institution when making certain decisions.

What possible conflicts can arise in this corporate structure and how can they be prevented?

The construction contains some conflicts that can arise between the different institutions. As described in a previous section, the interrelationships might be an advantage, as everyone is pulling in the same direction. Nevertheless, it is conceivable that at some point the committee will have some opportunistic members. This can lead to conflicts in the distribution of dividends, for example, because the charitable foundation relies on them but has no legal say in the matter. In the same way, conflicts may also arise with regard to strategic orientation. If say, the persons occupying the voting rights make decisions that violate the values and norms of the non-profit-making institution.

> *"Exactly. The for-profit institution determines the amount of the dividend and this is of course measured in such a way that it suits the firm and the foundation can pursue its activities. (...) So that was NEVER a problem for us in the past, to be quite clear. Even today we do not have a conflict, but theoretically it could be one. But if you'd have practically asked me: I don't know any!"*
>
> *(CEO of a non-profit institution)*

Here too, the charitable foundation has no direct influence. In extreme cases, however, it can exert indirect pressure on the firm to defend its interests. They can do this by either going public (press and media) or attracting employees to their side. Both of these options can cause enormous damage to the firm, be it through unmotivated employees or a negative public image.

> *“However, we use a clear common language on this subject. But the conflicts are all socio-political debates. It is always a question of whether the dividend is used sufficiently for social purposes“*
>
> *(Internal director of a foundation-owned firm)*

Another possible conflict can occur if a part of the management board acts opportunistically. Due to the fact that parts of the executive board, by virtue of their membership in the voting right institution, monitor themselves, there may also be information asymmetries and conflicts between persons within this institution with regard to certain decisions, since no independent controlling body (e. g. an external supervisory board) is involved.

This leads me to my third proposition:

Proposition 3:

Since the management controls itself, due to the interdependencies in personnel, opportunistic behaviour and information asymmetries can occur within the persons holding voting rights. Should there be persons in the committees who act opportunistically, there may also be conflicts between the investor and the holders of voting rights with regard to dividends or strategic decisions, as the non-profit institution has indirect sources of power such as the public and employees.

In order to minimize the potential for conflict, the firm founder must draw up a detailed statute in which the assignment of tasks and decision-making power is precisely defined.

> *"... but the foundation will look into its circles to see what its purpose is, namely to find charitable projects. She talks to us about the amount of the dividend, she discusses with us whether the dividend is sufficient or whether it needs to come in slightly more; not at all an issue. BUT in our daily work, the foundation doesn't play a role."*
>
> *(Internal director of a foundation-owned firm)*

The most important aspect of a successful organization of these firms is the people who work in there. It is essential that precise rules be laid down as to how the committees (both non-profit and voting right institutions) renew themselves and who decides on the replacement. It should always be people who identify with the firm and have been working there for many years.

> *"In all our discussions with the management, we notice that they measure themselves against their toughest rivals, so to speak. The benchmark is always whether someone in a market is better than us. So there's intrinsic pressure on management to get better and better and increase profits, and the previous CEOs are always setting very ambitious targets in terms of profits."*
>
> *(CEO of a foundation)*

> *"We are long-term oriented, but also profit-oriented. However, this is due to our management style and our intrinsic motivation. Our management positions are also filled on a long-term basis."*
>
> *(CEO of a foundation-owned firm)*

> *"In our opinion, the for-profit institution has been functioning excellently for 50 years. The mixture of internal and external personalities chosen there is made in such a way that the vanity of the people is used. There are top-class people on the board. They are all vain enough that if you elect a successor, they only elect their own peers and not someone who does not fit into this body at this point. In our opinion, the first appointment and governance rules areactually the ticket to good foundation governance."*
>
> *(Expert)*

In order to prevent further conflicts, a minimum dividend should also be set so that the charitable institution can fulfil its purpose even in bad times.

> *“Yes. That's just about sustainability. The firm always knows it can always reinvest the largest part of its profits. The foundation knows that it has a secure capital stock with which it can take on long-term projects."*
>
> *(Expert)*

> “*This is a part of our daily selection of fields in which we are active. So we would never make a "tamagotchi," i.e. any product that is said to be just for playing, but we want to use our products to make technology for life: that inspires the customer, makes life worth living or (this is the third aspect) that conserves environmental resources. That's what drives us."*
>
> *(CEO of a foundation-owned firm)*

The following proposition summits my argument:

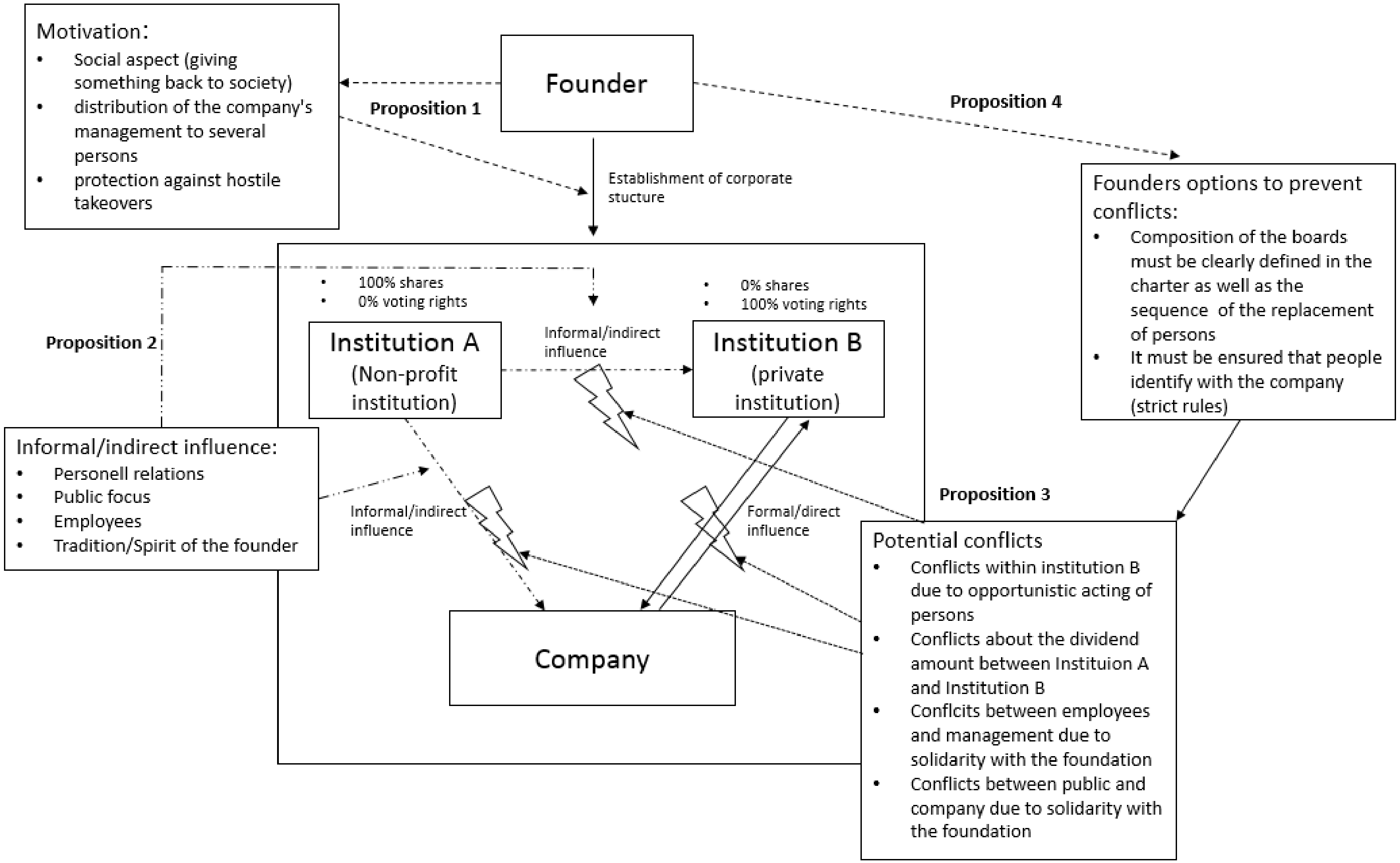
Proposition 4:

In order to prevent possible conflicts, it is necessary before establishing this corporate structure to clearly define which persons are members of the various institutions and according to which rules the committees will be newly appointed. It must be ensured that people identify with the firm and have a connection to the corporate culture. A minimum dividend is also essential.

6.5 Summary

The analysis investigates an increasingly widespread type of blockholder that has not been considered in previous literature. Figure 2 shows the resulting model from my analysis.

Figure 6-2: A model of distribution of property rights in “Doppelstiftungen”



Ultimately, there are a number of reasons that may induce a founder to transfer shares to a charitable foundation that does not hold any voting rights. It is possible that the founder wants to secure the long-term survival of the firm and protect it from hostile takeovers (Thomsen & Rose, 2004). Since shares without voting rights are as unattractive as voting rights without a right to dividends, the maintenance of the firm can be secured by such a company structure. Furthermore, it is also possible that the founder may chose this structure if he or she has no descendants or wants to avoid family disputes about dividends. One last possible point that could motivate a founder is his or her sense of social responsibility. If he or she wants to do something good for society by setting up a charitable foundation, it makes sense not to provide the persons within the foundation with any control rights, as they often lack the economic know-how to control a firm (Franke and Draheim 2015).

Nevertheless, despite the lack of voting rights, it is still possible for the non-profit organization to exercise indirect influence on management. By the fact that non-profit organizations are largely involved with the public, in instances of misbehavior of the management the institution could threaten to go public. Since there is a risk of substantial harm to the firm, this puts pressure on the management. This risk applies not only to the public, but also to the employees in the firm, as they also identify strongly with the firm's tradition and are proud that parts of the profits generated are spent for social purposes. Another important aspect for the indirect influence of the charitable foundation is the interrelationship between management and persons in the Institutions A and B. The people have known each other for a long time and therefore can be influenced by short ways. The above-mentioned possibilities of indirect influence by the non-profit organization also directly lead to potential conflict opportunities. Since public or employees can theoretically be brought up against the management by the non-profit organization, there is a risk of escalation at any time, especially due to possible disputes about dividends. In addition, the lack of control by the non-profit institution can lead to opportunistic behavior of individual persons in management or Institution B. In order to avoid all these conflicts in advance, the founder should establish clear rules in the charter that clearly define the first staffing as well as the replacement of the boards. The characteristics of the persons involved are essential for this corporate structure, as all persons must identify with the firm and be intrinsically motivated.

This study contributes to literature on family firms, blockholders and on foundation-owned firms. In the existing literature, foundation-owned firms have always been regarded as a subgroup of family firms, although there are enormous differences between these two types of companies (Hosseini and Jarchow, 2018). In family firms, regardless of whether there is a separation of ownership and control, the family always acts as a residual claimant, since it either has the motivation to effectively control the management or is itself represented in the management (Miller and Le Breton-Miller, 2006). However, in most foundation-owned firms there is no shareholder who acts as a residual claimant, since the persons operating in the charitable foundation are only allowed to use the dividend for non-profit purposes and therefore do not derive any personal profit from effective management control (Achleitner et al., 2018). According to the property rights theory, this distribution of rights is unlikely to be effective in a firm, as the rights should be distributed to those shareholders who derive the greatest benefit from it (Edmondson and McManus 2007). However, the results show that such a distribution of rights can also yield a successful firm and the model provides the basis for understanding why this is so. Clear rules for the composition of the committees must be established. In particular, individuals who identify with and act as stewards of the firm’s philosophies must be recruited. I am therefore able to extend existing theories, such as property rights theory, with regard to blockholders in a new way.

Limitations and future research

As is often the case with interpretative research, questions about generalizability or transferability of the findings arise when researchers study a single organization (Lincoln and Guba, 1985). Studies in general cannot be simultaneously simple, accurate and general (Thorngate, 1976). The focus of this qualitative study is to get insights into a special company structure that has no yet been examined and in which recent theories reach their limits. Therefore, I did some pioneer work in building a new theory to explain why such special firms work successfully. Based on my results, further research can use quantitative analyses to determine whether my findings match to the performance of these firms.

A second limitation may be that there is no rule that boards must be present in a foundation. For this reason, theoretically foundations may exist that consist of only one board of directors and in turn, there may be foundations in which, in addition to the board of directors, there is a supervisory board and a board of trustees. The more boards there are, the greater the potential for conflict within the foundation. For this reason, future research should investigate whether the number of boards in a foundation has an effect on conflicts within the foundation and between the foundation and the firm.

7. Best practices in foundation-owned firms

7.1 Overview of existing corporate governance codes

Corporate governance can be defined from many different perspectives. In general, it can be defined as the system through which the firm is managed and controlled. Corporate governance is, in a narrower sense, a corporate management that addresses the interests of all stakeholders as best as possible. Due to the increasingly frequent separation of ownership and control of a firm, a wide variety of conflicts of interest arise in firms due to many different stakeholders (Sick 2008). For this reason, the German Corporate Governance Code was introduced in 2002, under the leadership of Gerhard Cromme, by the "Government Commission" of the German Corporate Governance Code, which was set up specifically for the preparation of such a set of rules and regulations for listed firms. The code summarizes the German governance guidelines in a concise manner and helps foreign investors in particular to better understand the complex German system. In addition, norms and values are introduced to the firms, which enables sustainable corporate management with the involvement of all stakeholders (Cromme 2005). The code contains a guideline with legal bases, as well as recommendations and suggestions ("should" and "should") for good, sustainable corporate governance, especially for stock corporations. The code contains six topics, which are explained after a brief introduction (preamble):

1. shareholders and the annual general meeting; 2. cooperation between the management board and the supervisory board; 3. the management board; 4. the supervisory board; 5. transparency; 6. accounting and auditing. [9]

The German Corporate Governance Code is not legally binding for firm, but there is an obligation to submit a declaration of conformity. This means that in the event of non-

[9] See: German Corporate Governance Code, Version: February 7th 2017

compliance with recommendations of the code, a declaration must be made as to why a firm deviates from the rules. This principle is also known as the "comply or explain principle." However, studies have shown that a large number of DAX firms are committed to the code and largely adapt it within the firm (v. Werder, Talaulicar and Kolat 2005; Talaulicar and v. Werder 2008; Kohl, Rapp and Wolff 2013).

In addition to the German Corporate Governance Code, there is also a governance code for family firms. This was published by INTES and WELT AM SONNTAG in 2004 and has been continuously developed since that time. The development of a separate code for family firms is based on the fact wthat family firms are individual and heterogeneous in their size, structure and legal form and that the German Corporate Governance Code can therefore be applied effectively in only a few cases (Grottel et al. 2012). This code only contains recommendations that are not legally binding. After a short introduction, the following seven topics will be addressed:

1. commitment to a responsible handling of the owner's role; 2. owner; 3. supervisory body; 4. corporate management; 5. determination and use of results; 6. transferability of ownership; withdrawal from the owner's circle; 7. family governance. [10]

In addition to these codes of good corporate governance, there are also codes for non-profit organizations, especially foundations. The Federal Association of German Foundations adopted the "Principles of Good Foundation Practice" in May 2006. In January 2010, the Federal Association of German Foundations also adopted "10 recommendations for non-profit corporate foundations." In 2009, SwissFoundations published a comprehensive code of conduct for promotional foundations. These three guidelines are intended to help donors manage a foundation safely and competently.

[10] See: Governance Code for Family Businesses, Version: May 29th 2015.

However, many foundation-owned firms cannot be classified under either the German Corporate Governance Code or the Code for Family Firms. Although there are some exceptions, such as foundation-owned firms that are very similar to family firms (can apply the code for family firms) or listed foundation-owned firms (can apply the German Corporate Governance Code), neither code is applicable to the majority of foundation-owned firms. In light of the complexity of foundation-owned firms discussed in the previous chapters, it is important to develop a code of conduct or best practices for foundation-owned firms that helps founders and, especially, potential founders to successfully and sustainably transfer their firm into a foundation.

7.2 Recommendations for good corporate governance in foundation-owned firms

Since a foundation-owned firm consists of two independent institutions, it is important that their corporate governance code takes into account perspective from the foundation and the firm. Suggestions are made in the following for the most important aspects that should be included in such a code. These consist of a preamble, structural framework conditions, the composition of boards and the allocation of tasks as well as financial aspects, in particular rules for dividend payout and the use of funds. I also posit suggestions to mitigate potential conflicts and difficulties that were worked out in the previous chapters. These recommendations are intended to shape the interaction between the foundation and the firm in such a way that both institutions can successfully achieve their different goals.

Preamble of the foundation charter:

The preamble is an important element in the foundation charter, as the founder can freely express his or her will and wishes in the document. There are some examples (e.g. the

Friedrich Baur Foundation[11]) in which disputes arose between the descendants after the founder's death because there was uncertainty about the interpretation of the charter established by the founder. A subsequent amendment of the charter or purpose within the meaning of § 87 (2) BGB—especially after the founder's death—is only possible if it can be reconciled with the founder’s will (Klinkner, Buß and Ens 2018).

Accordingly, the determination of the founder's will in the preamble forms, in addition to the provisions of the charter, a basis for assessing whether an intended change of statutes or purpose is compatible with and thus approved by the historical founder's will, or whether the foundation authority refuses its consent to the change of statutes or purpose to protect the founder's will. Therefore, the preamble forms an important basis for assessing changes made after the founder's death (Buß 2016).

It is important to define its objectives precisely here, as the foundation supervisory authority must decide in disputes whether, for example, an amendment to the charter would have been in the founder’s interests.

Structural framework conditions

This section refers to the structure of the foundation, which the founder should carefully consider. It is important that the foundation’s purpose is clearly formulated. One can distinguish between a charitable and a private purpose. If the founder decides on a private foundation, he or she can provide for his or her family and other beneficiaries (e.g. also employees) in the long term. However, it is also possible for a charitable foundation to determine that up to 25 percent of the dividend distributed is used to provide for the family. It is important to define the purpose precisely so that there are no conflicts of interest between the foundation, the firm and the family later on.

[11] detailed information in: Streifeneder (2015)

The most important structural aspect with regard to corporate governance is the decision regarding what boards to establish within a foundation. As mentioned in Chapter 2.1.2, it is only mandatory to have a foundation board. Nevertheless, it is recommended that at least one other foundation board is established (e.g. a board of trustees or a supervisory board) to control the foundation. This results in several advantages, which are, however, strongly dependent on the composition of the boards. This will be explained in more detail in the next section.

Another important factor is the establishment of a so-called "Familienversammlung" (family meeting). This can prevent family members from having too little influence on the foundation over generations and prevent individual family tribes from gaining too much power and causing disputes (e.g. as with Aldi). This family meeting can advise on family matters and provide the foundation board with guidelines on the goals and long-term strategies. However, clear structures should also be implemented in regards to family meetings. In particular, it should also be determined for future generations who will have a stake in the future, as it is possible that more and more people will potentially have a say. It could maybe stipulated, for example, that when the founder leaves the foundation, each family member will no longer cast an individual vote, but vote according to bundled family lines (each family line will cast a uniform vote after consultation within the family line).

Composition of boards and task allocation:

A decisive corporate governance factor in foundation-owned firms is the composition and interaction of the firm and foundation boards. The following questions are central here:

- *Which persons should join the respective boards?*
- *What is the role of each board?*
- *What is the proportion of family members?*
- *Who decides on the delegation of family members?*
- *Who decides on the replacement of the Boards?*
- *Should there be an overlap in personnel between the foundation and firm boards?*

There is no common answer to these questions that can be applied to any foundation-owned firm. However, in this section I will make some general recommendations that can help foundation-owned firms to establish a good governance structure.

In the case of a charitable foundation, it can be helpful if a board consists of persons with a background in the non-profit sector and who are responsible for fulfilling the purpose of the foundation. However, since they may lack the necessary entrepreneurial know-how or motivation (because they are not beneficiaries) to control the management of the firm, it would be beneficial if a second foundation committee staffed with people who possess entrepreneurial know-how existed. This would ensure effective control of the management and fulfilment of the foundation's purpose. As a rule, no charitable purposes are pursued in a private foundation. For this reason, this foundation should primarily include people who focus on the control of management. In the case of a family foundation in particular, it is recommended that family members also occupy part of the foundation boards, since as beneficiaries they have a high incentive to monitor management. The number of family shares should be chosen in such a way that the family influence on the firm and the foundation is not too significant, but also not significant enough. Depending on the composition of the boards, ownership rights should be divided accordingly so that both the foundation's and the firm's goals are pursued and achieved.

In addition, it is important that the founder clearly defines which persons will occupy the respective boards in the following generations. It must be clearly regulated which family tribes may be involved in the foundation business and to what extent in the future. The filling of positions that are not occupied by family members should also be clearly regulated. The clearer the rules are defined, the fewer conflicts will arise.

The last important question relates to the personnel interdependence between foundation and corporate bodies. When interdependencies occur, goals and strategies can be better coordinated and brought in line. However, this set-up can lead to information being privately exchanged through personal relationships of board members, which is problematic. This can lead to some people in the foundation being uniformed of necessary information and lead others to act opportunistically. In extreme cases, it can lead to management being able to control itself and decide on its own remuneration. The founder should ensure that corporate and information structures are created in such a way that information is accessible and transparent to every authorized person.

Financial aspects

Another important aspect that should be addressed in a corporate governance code for foundation-owned firms is the distribution of dividends to the foundation and the associated use of funds. The founder should clearly specify in the charter according to which rules a dividend is distributed. A foundation must be legally able to fulfil its purpose at all times, so a minimum dividend should always be established. This dividend should be distributed annually irrespective of the firm's profit. In addition to fulfilling the foundation’s purpose, it is recommended that the minimum dividend be set in such a way that reserves can be formed in the foundation annually. This is important because the foundation is subject to an inheritance tax every 30 years. These measures can ensure that the foundation is preserved in perpetuity.

The family care provided by the foundation should also be considered in this context. For both charitable foundations (up to 25 percent of the dividend can be used to provide for the family) and private foundations, the founder should determine precisely which family members benefit from the dividend as beneficiaries and in what form. Here, too, it is important to divide this up according to family tribes, as the family can grow over the generations and the dividend may not be sufficient for everyone.

In addition to recurring (e.g. annual) payments, it is also possible to grant a one-off payment to certain family members. This could be a student loan, for example.

7.3 Summary

This chapter first provides an overview of the existing corporate governance codes in Germany. Due to the very special structure of foundation-owned firms, the codes can only be applied by a small number of these types of companies. These only include foundation-owned firms that are either listed on the stock exchange (German Corporate Governance Code) or foundation-owned firms in which the family is still active in management. For all other foundation-owned firms, the codes are not or are only partially applicable and some important aspects that are essential for good corporate governance in foundation-owned firms are not addressed at all.

Due to the constantly increasing number of foundation-owned firms and the many negative examples of conflicts that have arisen due to an unclearly structured charter, it is reasonable to develop a corporate governance code for foundation-owned firms. This should help existing foundation-owned firms to operate successfully and to reconcile the foundation and firm goals and while also giving potential founders a guideline before transferring the firm to a foundation. This will promote the creation of a stable structure and corporate governance, through which potential conflict potentials can be avoided from the outset. Table 7-1 summarizes the main aspects that are not included in the existing codes that should be addressed in a corporate governance code for foundation-owned firms:

Table 7-1: Issues that should be addressed in a corporate governance code for foundation-owned firms

Main topic	Questions to be answered
Preamble of the foundation charter:	• What is the exact will of the founder? • How should the firm be managed in the future? • Who may decide on changes to the foundation charter? • Under what circumstances may the charter be amended?
Structural framework conditions	• Are only charitable, only private or both purposes pursued? • How many foundation boards are established? • Which foundation boards are established? • How many people should be members of the respective boards?
Composition of boards and task allocation:	• Which persons should join the respective boards? • What is the role of each board? • What is the proportion of family members? • Who decides on the delegation of family members? • Who decides on the replacement of the boards? • Should there be any personnel overlap between the foundation and firm boards?
Financial aspects	• Is there a minimum dividend and what should it be? • Who decides on the amount of the dividend? • Are reserves formed for the inheritance tax? • Which family members are cared for by the foundation? • How does the foundation support the respective family members?

These open questions should be addressed in a corporate governance code for foundation-owned firms. Since foundation-owned firms typically arise from family firms, it would also be an opportunity to add these aspects to the existing code for family firms.

8. Summary, implications and outlook

8.1 Summary and limitations

Summary: The number of foundation-owned firms in Germany increased significanly in recent years and continues to rise (Institut für Demoskopie Allensbach 2012). This dissertation examines this group of firms in detail in terms of their performance and from a corporate governance perspective. The dissertation started by providing a basic understanding of foundation-owned firms and how they can be established. The advantages and disadvantages of foundation-owned firms were explained afterwards. Usually, foundation-owned firms arise from family firms and are often also referred as such in academic research (compare Chapter 3.1 and 3.2). Based on the "three-circle model" for family businesses (Tagiuri and Davis 1992), this dissertation shows that a large number of foundation-owned firms differ greatly from family firms and that the family influence on the firm and/or on the foundation is little or no longer existent (compare Chapter 3.3 and 3.4). This conclusion confirms that foundation-owned firms should be regarded as a separate research area and constitutes the foundation for the investigations made in this dissertation.

A literature overview of foundation-owned firms shows that the previous research only focuses on the performance differences of foundation-owned firms in comparison with other business types (compare Chapter 4.2). Until now, there has been no distinction between different types of foundation-owned firms. In Chapter 4, I identified 142 foundation-owned firms that were used to analyze performance differences within this group by linear regression analyses and median regressions. The classical performance measures RoA, RoE, RoS and RoI were applied as dependent variables. The results show that foundation-owned firms that are held by a charitable foundation perform significantly worse than foundation-owned firms held by private (family) foundations. No effect was observed between listed and non-listed firms.

The results also show a slightly positive tendency for the performance of foundation-owned firms in which the family is actively involved in the firm's management (compare Chapter 4.5). These results once again confirm my assumption that there are strong differences within the group of foundation-owned firms and that these firms should not be treated as a homogeneous group.

Chapter 5 focuses on foundation-owned firms listed on the stock market. I identified 25 firms that were previously or are currently listed on the stock exchange. Using an event study analysis, the effect of foundations acting as blockholders of a firm on shareholder value is examined (compare Chapters 5.3 and 5.4). I examine how the share price develops when the foundation announces either to increase or decrease its shares. The results show that the foundation's announcement to reduce its stake has a positive effect on the share price. The results are strengthened by the fact that announcements about changes in the shareholdings of other blockholders active in my sample firms deliver opposite results. In order to concretize the results, the sample was subsequently divided into firms with more than 25 percent and less than 25 percent of foundation shares. This leads to a foundation's announcement of holding less than 25 percent of the share to increase its stake has a significant negative impact on the share price (compare Chapter 5.5). These results confirm the assumption that, contrary to other blockholders in the capital market, foundations are perceived rather negatively and have a detrimental influence on shareholder value (compare Chapter 5.6).

Chapter 6 examines the special form of "Doppelstiftung" based on property rights theory. In this chapter, interviews with experts and executives of foundation-owned firms are conducted to develop an explorative model using the Gioia method. This model explains the distribution of ownership rights within foundation-owned firms and the resulting potential conflicts between the respective boards. In addition, the model offers suggestions on how the possible conflicts in "Doppelstiftungen" can be prevented or resolved (compare Chapter 6.4).

Based on the conflicts in "Doppelstiftungen", these aspects are applied to all types of foundation-owned firms, since many are valid for all foundation-owned firms. Chapter 7 develops guidelines and best practices for foundation-owned firms, which should form the basis for a corporate governance code for foundation-owned firms. This guideline can anticipate and prevent possible conflicts in those firms. Table 7-1summarizes the main findings of this chapter.

Limitations: The interpretation of the results of this dissertation comes with some limitations. The limitations have been addressed in detail at the end of their respective chapters (4.6, 5.6 and 6.5). In the following, a short summary is given. The data used in Chapter 4 do not include small foundation-owned firms. Many foundation-owned firms are excluded from the disclosure obligation (less than 12 million turnover or less than 250 employees) and, therefore do not have to publish their income statement. The accounting data could only be collected for 142 foundation-owned firms. However, the small foundation-owned firms that have been excluded have a similar distribution with regard to the distribution of shares and the distribution of private and charitable foundations as the sample in use.

In the analysis in Chapter 5, I have a relatively small sample size. This is due to the fact that there are only a few listed foundation-owned firms. The limitation in this chapter is similar to Chapter 4, because foundation-owned firms are a relatively new phenomenon and for this reason little research has been done so far. Nevertheless, the results are partly significant and provide a basis for future research once more foundation-owned firms have established their businesses.

The model developed in Chapter 6 refers to "Doppelstiftungen" and cannot be completely transferred to all foundation-owned firms. Nevertheless, a large part of the results also apply to foundation-owned firms in which only one foundation is involved. Thus, the model forms a basis for a better understanding of the internal processes and possibilities of influence of the various boards. A general limitation of this dissertation is the fact that all chapters refer only to the DACH-region, and the results cannot be generalized for other countries. Other countries have different tax regulations and, in some cases, foundations are not allowed to hold shares in a firm.

The results should be regarded as first insights in the research topic of foundation-owned firms. Additional research is required to provide more generalizable results. Some avenues of future inquiry are provided in subsection 8.3. Furthermore, this dissertation has theoretical and practical implications that will be summarized in the next section.

8.2 Implications

8.2.1 Implications for theory

This dissertation contributes to different literature streams. A short summary is provided below.

Literature on foundation-owned firms: This dissertation provides an important contribution to the literature on foundation-owned firms. Previous research has only examined the performance of foundation-owned firms in comparison with other for-profit firms (Thomsen 1996, 1999; Herrmann and Franke 2002; Thomsen and Rose 2004; Dzansi 2012) or non-profit firms. Franke and Draheim (2016) are the only ones who have compared charitable with private foundation-owned firms. They found that firms held by a charitable foundation are more employee-oriented. In this dissertation, for the first time the performance of different types of foundation-owned firms is distinguished. The significant differences between charitable and private foundations provide a good basis for future research in the field. Chapter 8.3 proposes some future research directions.

Furthermore, this dissertation provides an insight into the complex corporate governance structures of foundation-owned firms and presents the internal structural challenges in an explorative model developed by qualitative analyses based on interviews. This model is a first approach to explain the complexity of foundation-owned firms and to make this type of firm more transparent. Based on this model, further research can be carried out both qualitatively and quantitatively.

Literature on family firms: The dissertation contributes to existing literature by distinguishing foundation-owned firms from family firms and by highlighting differences between different foundation-owned firms. In the previous literature, foundation-owned firms have often been assigned to the group of family firms in a single sample. By applying the three-“circle model” for family businesses (Tagiuri and Davis 1992) to the group of foundation-owned firms, this dissertation emphasizes that few of foundation-owned firms can be counted as family firms. In most foundation-owned firms the family has no influence on the foundation or the firm. This would allow researchers of family businesses to rethink their sample selection in studies of family firms and create new ideas for further research.

Literature on blockholder ownership: The dissertation also adds to the broader literature about the performance consequences of blockholder ownership. Blockholder literature has focused on the effects of performance and shareholder value of ownership by families (see Wagner et al. 2015 for a meta-analysis), private equity firms (e.g. Achleitner et al. 2011), banks (e.g. Lin et al. 2009), institutional investors (e.g. Mizuno 2010), and venture capital firms (e.g. Dai 2007). The results in Chapter 5 show that foundations constitute a special type of blockholder that has previously been overlooked. According to the property rights theory, this distribution of rights is unlikely to be effective in a firm, as the rights should be distributed to those shareholders who derive the greatest benefit from it (Edmondson and McManus 2007). What is special about these results is that foundation ownership has a negative impact on shareholder value, which is a contradiction to most studies on other blockholders (Holderness and Sheehan 1988; Lewellen et al. 1985; Agrawal and Mandelker 1990; Barclay and Holderness 1990; Bethel et al. 1998; Holderness 2003) and to studies on property rights. The current problems at Thyssenkrupp, in which the foundation is strongly criticized for not giving enough support to the management of the firm or even betraying management (Handelsblatt 2018), underline the importance of clear corporate governance guidelines and the importance of staffing the boards with the appropriate persons.

8.2.2 Implications for practice

Founders and potential founders: (Potential) founders who are profit-orientated could learn from this study that they would do better to give their firm into the hands of a private (family) foundation. Although this leads to a loss of charitable status and the associated tax benefits, these losses are so small that they are clearly offset by the higher firm's potential performance. In addition, a private foundation provides the family with even better care. At the same time, a charitable foundation is a good option for (potential) founders who pursue social goals in parallel with their profit orientation. Chapter 7 shows that potential founders who are also provided with guidelines and best practices on the organization of the interaction between the foundation and the firm with regard to the composition of committees, distribution of tasks and determination of the foundation charter to create more successful foundation-owned firms. These proposals facilitate the transfer of a firm to a foundation and respond to many potentially unanswered questions. Existing foundation-owned firms can also use these guidelines to improve collaboration between foundations and firms and resolve conflicts.

Based on the findings in Chapter 5 that equity markets are skeptical about foundations as shareholders, I suggest that foundation-owned firms listed on the stock market need to explain the benefits of foundation ownership in a more effective way (e.g. by highlighting the long-term orientation afforded to the firm through foundation ownership). They may also need to be more transparent about their unique and special corporate governance structure. For most shareholders, foundations are a "black box," that create uncertainty about their motives and goals.

Founder family: Members of the founding family can also use this dissertation to better understand the founder's motives and to recognize the advantages of a foundation as a shareholder. By the foundation (also with the charitable foundation the family receives up to 25% of the dividend) the family is provided very well, without having to worry about the interests of the firm.

Chapter 7 also shows how important family cohesion is and which problems can arise if the family does not work together. If family members act opportunistically, this can harm the firm. As a consequence, the dividend will also be lower for the family and disadvantages will arise for everyone involved. In addition, the current example from Thyssenkrupp (Wirtschaftswoche 2018) shows that a lack of family cohesion can harm the company caused by non-family members.

Policy makers: The dissertation shows that in the establishment of a foundation and the transfer of a firm into a foundation, there are hardly any regulations on how this construction must be organized. The founder is basically free to choose (compare Chapter 2). In other countries there are concrete guidelines for this transfer.[12] For this reason, policy makers in Germany should pursue the goal of setting up clear structures for doing so. In addition, politics could strive to create more transparency for the model of foundation-owned firms. This could be done, for example, through the establishment of a codex (compare Chapter 7), which protects entrepreneurs from the possibility that the firm may no longer be profitable and creates transparency for politicians and firms from other countries, thus facilitating international trade

[12] E.g. USA. where a charitable foundation is permitted to hold a maximum of 25% of the shares of a firm.

relations. This is sensible because the foundation approach, which is unknown in other countries, is often met with mistrust.

The interviews also show that the German authorities (tax offices and foundation supervisory authorities) are very often not sufficiently trained to be able to make the right decision in individual cases. From this point of view, it is desirable for policy makers to create more transparency and for staff to receive better training.

8.3. Directions for further research

Since foundation-owned firms are a relatively unexplored field, this dissertation provides several possible approaches for future research projects. With reference to the performance differences found within the group of foundation-owned firms in Chapter 4, further types of foundation-owned firms could be examined. In this dissertation, only the family influence on the firm was investigated. Future research could identify the family influence on the foundation and examine whether firms in which the family only has influence on the foundation perform better than firms in which the family has no influence at all. In addition, performance differences between the various foundation-owned firms at the country level could be compared. Due to legal regulations, the results could differ significantly from those of German foundation-owned firms. The same applies to the dividend policy, which has special characteristics in Germany compared to other countries (Andres, Betzer, Goergen and Renneboog 2008). Furthermore, it could be investigated whether employees prefer to work in foundation-owned firms. In this case, comparisons should also be made between different countries, as employee preferences vary strongly (Block, Fisch, Lau, Obschonka and Presse 2016).

Based on the results of Chapter 5, listed foundation-owned firms could be further investigated. Similar to Chapter 4, listed foundation-owned firms could also be divided into charitable and private foundation-owned firms. The fact that private family foundations are known in other countries, in contrast to charitable foundations, could lead to significant differences. I would assume that private foundations are seen more positively by investors than charitable foundations due to their popularity in other countries. In addition, another event study could be analyzed with other types of events, such as announcements about board changes in foundations. A comparison between other countries that have a different corporate governance system would also be interesting for listed foundation-owned firms.

In addition, further qualitative analysis could be used to further develop the model for "Doppelstiftungen", developed in Chapter 6, into a model for all types of foundation-owned firms. From a corporate governance perspective, it could also be analyzed whether the number of boards in the foundation has an effect on conflicts within the foundation and between the foundation and firm. The payout ratio of foundation-owned firms is also an interesting aspect. It is commonly assumed that foundation-owned firms are primarily long-term oriented because they pay very low dividends to the foundations and can therefore invest a large amount of money in R&D. It would be interesting to analyze whether this hypothesis can actually be quantitatively proven.

A final aspect that could be analyzed in future research relates to the founders themselves. It can be investigated which types of entrepreneurs transfer their firm to a foundation. On the one hand, character could have an influence, but also the number and gender of the descendants might play a role in the founder’s decision. It can be assumed that firms are more frequently transferred to a foundation if there are either many or no descendants. This dissertation provides a first insight into a field that has little research, as well as the groundwork for further investigations.

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Appendix

Table A1: T-test dividend return (average 2010-2017) listed vs. non-listed foundation-owned firms

Group	Dividend return (average 2010-2017)		
	Obs	***Mean***	***Std. Err.***
Listed non-fof	20	2.389	1.122
Listed fof	20	1.838	0.803
Difference		**0.551****	0.308

Table A2: List of all foundation-owned firms in Germany that could be identified

Company	Foundation	Type of foundation
A.S. Création Tapeten AG	A.S. Création Tapeten-Stiftung	charitable
Adolf Würth GmbH & Co. KG	5 Familienstiftungen	private
Akademie des Deutschen Buchhandels GmbH im Literaturhaus München	Franz Cornelsen Stiftung	private
Akademie moderner Betriebswirtschaft BW GmbH	Ulrich Richard Ramdohr Stiftung	charitable
Aldi Einkauf GmbH & Co. oHG	Carolus Stiftung	private
Aldi Süd GmbH & Co. KG	Siepmann-Stiftung	private
Alfred C. Toepfer Verwaltungs-Gesellschaft mbH	Alfred Toepfer Stiftung F.V.S.	charitable
Alois Lauer Stahl- und Rohrleitungsbau Gesellschaft mit beschr. Haftung	Alois-Lauer-Stiftung	charitable
Alraune gGmbH	Pestalozzi Stiftung Hamburg	charitable
Arabella Hotel Holding Management GmbH	Schörghuber Stiftung & Co. Holding KG	private
Arcus Elektrotechnik Alois Schiffmann GmbH	Alois-Schiffmann-Stiftung	private
arko GmbH	arko Stiftung	charitable
Arno Hentschel GmbH	Arno-Hentschel-Stiftung	charitable
ATH Holding	Burkhard Meyer Stiftung	charitable
Atlas Weyhausen GmbH	Dr. Friedrich Weyhausen Stiftung	private
Augustinum gGmbH	Augustinum Stiftung	private
Autohaus Fischer Beteiligungs- und Verwaltungs GmbH & Co. KG	Hans und Gertie Fischer-Stiftung	charitable
Badische Neueste Nachrichten Badendruck GmbH	Wilhelm Baur Stiftung	charitable

Bauknecht Immobilienverwaltungs GmbH & Co. KG	Gottlob Bauknecht Stiftung	private
Baur Versand (GmbH & Co KG)	Friedrich Baur-Stiftung	charitable
Bavaria Beteiligungs- und Verwaltungs GmbH & Co. KG	Schörghuber Stiftung	private
Bavaria International Aircraft Leasing GmbH & Co. KG	Schörghuber Stiftung	private
Bayerische Elite Akademie GmbH	Stiftung Bayerische Elite-Akademie	charitable
Bayerische Hausbau GmbH & Co. KG	Bayerische Braustiftung Josef Schörghuber	private
Bayerische Löwenbrauerei Franz Stockbauer Aktiengesellschaft	Franz und Maria Stockbauer'sche Stiftung	charitable
BBS + Dach GmbH	St. Joseph Stiftung	charitable
Becker & Kries Finanzierungs-GmbH	Familienstiftung Becker & Kries	private
Beiersdorf AG	Troma Alters- und Hinterbliebenenstiftung	charitable
Bertelsmann AG	Bertelsmann Stiftung	charitable
Betten Rid GmbH	Günther Rid Stiftung	charitable
BIG BAU-INVESTITIONS-GESELLSCHAFT mbH	Herbert-Giersch-Stiftung	charitable
Bitburger Brauerei Th. Simon GmbH	Dr. Hanns Simon Stiftung	charitable
bofrost* Dienstleistungs GmbH & Co. KG	bofrost*Stiftung	private
Boll & Kirch Filterbau GmbH	Marga und Walter Boll-Stiftung	charitable
Brandenburgische Schlösser GmbH Gemeinnützige Betriebsgesellschaft	Deutsche Stiftung Denkmalschutz	charitable
Brauerei Johann Kneitinger	H. und S. Kneitinger Stiftung	charitable

Bremer Fahrzeughaus Schmidt + Koch AG	Waldemar Koch-Stiftung	charitable
Bretschneider Verpackungen GmbH	SCA Packaging Deutschland Stiftung	private
BS Management GmbH	co:b ios Stiftungsgesellschaft mbH	charitable
Buck Chemie GmbH	Karl und Anna Buck Stiftung	charitable
Bürgergemeinschaft Marktplatz Hildesheim GmbH & Co. KG	Stiftung Knochenhauer-Amtshaus Hildesheim	charitable
BWF Beeren-, Wild- und Feinfrucht GmbH	Philipp´sche Stiftung	charitable
C. D. Wälzholz GmbH	Hans Martin Wälzholz-Junius Familienstiftung	private
Caliqua Bormann GmbH & Co. KG	Schäfer Familienstiftung	private
Carl Hoffmann jr. (Stiftung & Co. KG)	Hoffmann Stiftung	private
Carl Zeiss AG	Carl-Zeiss-Stiftung	charitable
Carthago GmbH	Karl-Heinz Schuler Stiftung	charitable
CeWe Color Holding AG	Neumüller CeWe Color Stiftung Oldenburg	charitable
CHT R. Beitlich GmbH	Reinhold Beitlich Stiftung	charitable
Cornelsen Verlagsholding GmbH & Co. KG	Franz Cornelsen Familienstiftung und Hildegard Cornelsen Stiftung	private
Cybits AG	Brek Stiftung	charitable
DAA GmbH	DAA - Stiftung Bildung und Beruf	charitable
DaimlerChrysler Luftund Raumfahrt Holding Aktiengesellschaft	Messerschmitt Stiftung	charitable
DAL Deutsche Afrika-Linien GmbH & Co. KG	Familienstiftung von Rantzau-Essberger	private

Dassbach Küchen Werksverkauf GmbH &	Gert Bauknecht Stiftung	private
Deichmann SE	Deichmann Familienstiftung	private
Detlef Hegemann Aktiengesellschaft	Detlef Hegemann-Stiftung	charitable
Deuter GmbH	Familienstiftung Becker & Kries	private
Deutsche AIDS-Stiftung Immobilien GmbH	Deutsche AIDS-Stiftung	charitable
Deutsche Amphibolin-Werke von Robert Murjahn Stiftung & Co. KG	Caparol Stiftung	private
Deutsche Immobilien Investierungs-GmbH	Familienstiftung Becker & Kries	private
Deutsche Markenweinkellerei Selection Langguth GmbH	Johann Wolfgang Langguth-Stiftung	charitable
Deutsche Sportmarketing GmbH	Stiftung Deutsche Sporthilfe	charitable
Dickmann Stiftungs-Verwaltung GmbH	Kräck-Stiftung	private
Diehl AKO Stiftung & Co. KG	Diehl-Stiftung	private
Dillinger Hüttenwerke AG	Montan-Stiftung-Saar	charitable
Berentzen-Gruppe AG	Gerhard ten Doornkaat Koolmann-Stiftung	charitable
DPS Dienstleistungsgesellschaft mbH der Pfeifferschen Stiftungen	Pfeiffersche Stiftungen zu Magdeburg-Cracau	charitable
Dr. Johannes Heidenhain GmbH	DR. JOHANNES HEIDENHAIN-STIFTUNG GmbH	charitable
Dr. R. Pfleger Chemische Fabrik GmbH	Doktor Robert Pfleger-Stiftung	charitable
Drägerwerk Aktiengesellschaft	Dräger-Stiftung	charitable
Dresdner Verlagsdruck GmbH	Bertelsmann Stiftung	charitable
Dürr Aktiengesellschaft	Heinz und Heide Dürr Stiftung	charitable

BSR Bad Sanitär Renovierungsprodukte GmbH	Heinz Dusar Familienstiftung	private
Dussmann Stiftung & Co. KGaA	Peter Dussmann-Stiftung	charitable
Helga Breuninger Stiftung GmbH	Heinz Breuninger Stiftung	charitable
ebs European Business School gemeinnützige GmbH	Stiftung zur Förderung der European Business School	charitable
Eckes Aktiengesellschaft	Ludwig Eckes Familienstiftung	private
Ed. Heckewerth Nachf. GmbH u. Co. KG	Heckewerth-Stiftung	charitable
edding Aktiengesellschaft	Stiftung do	charitable
Edgar Kittner GmbH & Co. KG	Edgar Kittner Familienstiftung	private
Egon-Birkel-Stiftung & Co. KG	Egon Birkel Stiftung	private
EGT Holding AG	Singewald-Immobilien-Familienstiftung	private
Ehlebracht AG	Horst-Ehlebracht-Stiftung	charitable
Einhorn-Presse Verlag GmbH	Eduard-Dietenberger-Stiftung	charitable
Eisenwerke Reintjes GmbH	Eugen und Elisabeth Reintjes-Stiftung zu Emmerich	charitable
Elbe Werkstätten GmbH	Hamburger Stiftung Rehabilitation und Integration	charitable
Elfriede Dräger-Gedächtnis -Stiftung Pro Arte Gesellschaft mit beschr. Haftung	Dräger-Stiftung	charitable
Bayernwerk AG	Adolf Wächter-Stiftung	charitable
Erhardt + Leimer GmbH	Albert Leimer-Stiftung	charitable
Ernst & Young Deutsche Allgemeine Treuhand AG Wirtschaftsprüfungsgesellschaft	Ernst Young Stiftung e.V.	charitable
Evonik Industries AG	RAG-Stiftung	private
Ewald Dörken AG	Werner Richard-Dr. Carl Dörken Stiftung	charitable

Faudi Feinbau GmbH	Fritz u. Margot Faudi-Stiftung	charitable
FDS Gewerbebetriebsges. mit beschr. Haftung der Fürst Donnersmarck-Stiftgung	Fürst Donnersmarck Stiftung zu Berlin	charitable
Fichtner Raum & Ausstattung GmbH	Fichtner Familienstiftung	private
Fiege Deutschland Stiftung & Co. KG	Fiege Deutschland Stiftung	private
Fielmann AG	Fielmann-Familienstiftung	private
Frankfurter Allgemeine Zeitung GmbH	FAZIT-STIFTUNG	charitable
Frankfurter Societäts-Druckerei Gesellschaft mit beschränkter Haftung	FAZIT-Stiftung gemeinnützige Verlagsgesellschaft mbH	charitable
Franz Haniel & Cie GmbH	Haniel Stiftung	charitable
Franz Wilhelm Langguth Erben GmbH & Co. KG	Johann Wolfgang Langguth-Stiftung	charitable
Freie Sparkassen Beteiligungsgesellschaft mbH	Gemeinnützige Stiftung Sparkasse zu Lübeck	charitable
Fresenius SE	Else Kröner Fresenius-Stiftung	charitable
Freudenberg & Co	Freudenberg/Comeius Stiftung GmbH's	charitable
Zechenweg GmbH	A. Krupp v. Bohlen u. Halbach Stiftung	charitable
Friedhelm Loh Stiftung & Co. KG	Friedhelm Loh Stiftung	private
Friedhelm Schaffrath GmbH & Co. KG	Friedhelm Schaffrath-Stiftung	private
Friedrich-Baur-GmbH	Friedrich-Baur-Stiftung	charitable
Fritz Landmann Stiftung Vermögensverwaltungsgesellschaft mbH	Fritz Landmann Stiftung	charitable
GAG Immobilien AG	Ernst Cassel-Stiftung	charitable
Ge Ha Vau Grundbesitz und Hausverwaltungsgesellschaft mbH	Günther Rid Stiftung	charitable

Gemeinn. Wohnungsbau AG	Stiftung für Forschungen im Wohnungs- u. Siedlungswesen	charitable
Geobra Brandstätter GmbH & Co. KG (Playmobil)	Kinderförderung von Playmobil	charitable
Georg Jordan "Gesellschaft mit beschränkter Haftung"	Helmut und Gisela Bertram-Stiftung	charitable
Gerhard Geiger GmbH & Co. KG	Gerhard Geiger Stiftung	private
Glas-Nagel Stiftung & Co. KG	Wolfgang-Nagel-Stiftung	charitable
GM Projektverwaltung (Stiftung & Co.) KG	Dr. Hans Mayer-Stiftung	private
Gold Kraemer Stiftung gemeinnützige Trägergesellschaft mbH	Gutberlet-Stiftung Förderstiftung der TEGUT-Gruppe	charitable
Goldhofer Aktiengesellschaft	Alois Goldhofer Stiftung	charitable
Grundig AG	Max Grundig Stiftung	private
Grunelius Stiftung Vermögensverwaltung GmbH	Ernst Max von Grunelius Stiftung	charitable
Günther Henle Verlag	Günter Henle-Stiftung	charitable
GÜNTHER-LEHNER-STIFTUNG GmbH	Günther Lehner Stiftung	charitable
Gustav Ernstmeier GmbH & Co. KG	Dieter Ernstmeier Stiftung	charitable
GWG Grundstücks- und Wohnungsbaugesellschaft Schwäbisch Hall mbH	Stiftung Hospital zum Heiligen Geist	charitable
H. J. Müller-Stiftung & Co Verwaltungs-KG	H. J. Müller Stiftung	private
h.k.o. Isolier- und Textiltechnik Gesellschaft mit beschränkter Haftung	Heinrich Kempchen Stiftung	private
Hampel GmbH	Gert Bauknecht Stiftung	private
Handball Magdeburg GmbH	Stiftung Sport in Magdeburg	charitable

Hans Bühler & Co. Inh. Kurt-Giesler-Stiftung	Kurt Giesler Stiftung	private
Hans Soldan GmbH	Hans-Soldan-Stiftung	charitable
Hans und Lucia Pfohe Vermögensverwaltungsgesellschaft mbH	Hans und Lucia Pfohe Stiftung	charitable
Hansa Metallwerke Aktiengesellschaft	Karl-Göhring-Stiftung	charitable
HANSA-HEEMANN AG	Ursula-Lange Stiftung	private
Haus am Burgberg Wohn- und Förderstätte	Cornelius-Helferich-Stiftung	charitable
Haus- und Grundstücksverwaltung Fritz Bender GmbH	Fritz Bender Stiftung	charitable
HA-WI-MED Alfred Ulrbich GmbH	Edith & Alfred Ulbrich Stiftung	private
Hectas Gebäudedienste Stiftung & Co. KG	Vorwerk Stiftung	charitable
Hegemann Gruppe	Ursula Hegemann Stiftung	charitable
Heine und Beißwenger Stiftung & Co. KG	Ferdinand-Heine-Stiftung	private
Heinrich-Taxis GmbH	Haug-Taxis-Stiftung	charitable
Heinz Sielmann Stiftung Fördergesellschaft mbH	Heinz Sielmann Stiftung	charitable
Helferich-Grundstück und Vermögensverwaltung mbH	Cornelius-Helferich-Stiftung	charitable
Helmut Nanz Stiftung Klinik für ambulante Rehabilitation GmbH & Co. KG	Helmut-Nanz-Stiftung	charitable
Hemeyer Holding GmbH	Karl-Heinz Hemeyer-Stiftung	charitable
Henkel KG aa	Gerda Henkel-, Dr. J. Henkel-, Konrad Henkel-St.	charitable

HERAEUS HOLDING Gesellschaft mit beschränkter Haftung	Dr. Wilhelm Heraeus und Else Heraeus Stiftung und Kathinka Platzhoff-Stiftung	charitable
HERMANN GUTMANN WERKE AG	Hermann Gutmann Stiftung	charitable
Hermsen Holding GmbH	Manfred-Hermsen-Stiftung	charitable
HESSINGPARK-CLINIC GMBH	Hofrat Friedrich Hessing'sche Stiftung	private
Hilfswerk-Siedlung Gesell. m.beschr.Haftg. Evangel. Wohnungsuntern.in Berlin	Stiftung Kronenkreuz	charitable
Hirschvogel Automotive Group	Frank Hirschvogel Stiftung	charitable
Hermann Kolb GmbH	Heinrich-Kempchen-Stiftung	private
Hoerbiger Holding	Hoerbiger-Stiftung	private
Hohenhonnef GmbH	Cornelius-Helferich-Stiftung	charitable
Homag Group AG	Erich und Hanna Klessmann Stiftung	charitable
Hoselmann Stahl GmbH Handel und Anarbeitung	Erich und Emmy Hoselmann-Stiftung	charitable
IKEA Deutschland Service -GmbH	Ikea Stiftung	charitable
LAUSITZ-CENTER HOYERSWERDA KG	Karg´sche Familienstiftung	private
SBH WEST GMBH	Stiftung Bildung und Handwerk	charitable
Index-Werke GmbH & Co. KG Hahn & Tessky	Eugen und Irmgard Hahn Stiftung	charitable
Institut für Demoskopie Allensbach	Stiftung für Demoskopie	charitable
Integra Vermögensverwaltung und Beteiligungsgesellschaft mbH	Diehl VA Systeme Stiftung & Co. KG	private
Irma Ries GmbH & Co. KG	Ries-Stiftung	private
Johann Cuno König Stiftung & Co. KG	Manfred König Stiftung	private

JTK - JUNIOR TRADING KÜNZELSAU GMBH	Christian Brükert Stiftung gemeinnützige GmbH	charitable
JUNGHANS Feinwerktechnik GmbH & Co. KG	Diehl VA Systeme Stiftung & Co. KG	private
K + L Ruppert Zentralverwaltung Stiftung & Co. KG	Gebr. Ruppert Familienstiftung	private
K.D. Feddersen GmbH & Co. KG	K. D. Feddersen Stiftung	charitable
Conreal Immobilien GmbH	Karg'sche Familienstiftung	private
Karl Beitzel Stiftung & Co. KG	Gebr. Beitzel Stiftung	private
Kaufland Stiftung & Co. KG	Dieter Schwarz Stiftung gGmbH	charitable
HK Vermögensverwaltung	Heinrich- und Junker-Kempchen-Stiftung	private
Kesla Pharma Wolfen GmbH	Schreiner-Stiftung für Forschung und Bildung	charitable
KIB Grundstücksverwertungs- und Verwaltungsgesellschaft mbH & Co. Immobilien Verwaltung	Max Grundig Stiftung	private
Voestalpine Wire Germany	Kjellberg-Stiftung	charitable
Klaus Faber Stiftung & Co. KG	Klaus Faber Stiftung	private
Klaus Roth-Stiftung & Co. KG	Klaus Roth Stiftung	private
Klein & Hummel GmbH	Walter Hummel Stiftung	charitable
Johannes und Jacob Klein GmbH	KSB Stiftung	charitable
Klinik Wartenberg Prof. Dr. Selmair GmbH & Co. KG	Prof. Dr. med. Hans Selmair Stiftung	private
Kliniken Schmieder Stiftung & Co. KG	Prof. Friedrich-Schmieder-Stiftung	private
Königstadt Gesellschaft für Grundstücke und Industrie mbH	Fred und Carla Lottberg Stiftung	charitable
Konradin Medien Gruppe	Konrad-Kohlhammer-Stiftung	charitable

Körber AG	Körber-Stiftung	charitable
Kraft Baustoffe München GmbH	Josef und Luise Kraft-Stiftung	charitable
Krafthand-Verlag Walter Schulz GmbH	Walter Schulz Stiftung	charitable
KSB AG	KSB-Stiftung	charitable
L. Possehl & Co. mbH	Possehl-Stiftung	charitable
Landwirtschaftsverlag Gesellschaft mit beschränkter Haftung	Stiftung Westfälische Landschaft	charitable
Lange-HANSA-Holding GmbH	Ursula-Lange-Stiftung	private
Leistritz AG	Ruth Leistritz Mitarbeiterstiftung e.V.	private
Leonhard Kurz GmbH & Co. KG	Leonhard Kurz Familienstiftung	private
Lidl Stiftung & Co. KG	Dieter Schwarz Stiftung GmbH	charitable
Lindauer Dornier Gesellschaft mit beschränkter Haftung	Peter Dornier Stiftung	charitable
LOMETAL International Stiftung & Co. KG	Friedhelm Loh Stiftung & Co. KG	private
Lorenz Bahlsen Snack World Holding GmbH & Co. KG	Ruth- und Klaus-Bahlsen-Stiftung	charitable
Mahle GmbH	MAHLE - STIFTUNG Gesellschaft mit beschränkter Haftung	charitable
Mainau GmbH	Lennart-Bernadotte-Stiftung	charitable
Märker Holding GmbH	Märker-Stiftung	private
Martin Hoppmann GmbH	Stiftung "Demokratie im Alltag"	charitable
Matth. Hohner Aktiengesellschaft	Share-Value-Stiftung	charitable
MAX STREICHER Beteiligungsgesellschaft mbH & Co. KG	Gallinger-Max Stiftung	charitable
Merkur Thorhauer GmbH & Co KG	Thorhauer Familienstiftung	private

Messedruck Leipzig GmbH	Doris-Günther-Stiftung	charitable
Metro AG	Prof. Otto Beisheim-Stiftung	charitable
Metz-Werke GmbH & Co. KG	Paul und Helene Metz Stiftung	charitable
MEWA Textil-Service Aktiengesellschaft	Gabriele Gebauer MEWA Stiftung	charitable
Meyer-Maack Vermögensverwaltung GmbH & Co. KG	Ernst Meyer-Maack Stiftung	charitable
MGS Hotelbeteiligungs GmbH	Max Grundig-Stiftung	private
Mind Institute SE	Kretschmar Familienstiftung	private
Möbelhaus Käthe Meyerhoff KG	Inge-Küster-Stiftung	charitable
Moeller-Stiftung Hold & Co. KG	Moeller-Stiftung / Hein Moeller Stiftung GmbH	private
Moritzbastei Betriebs-GmbH	Stiftung Moritzbastei	private
Naber GmbH + Co. KG	Nabertherm Stiftung	private
Nations HealthCareer School of Management gGmbH	co:bios Stiftungsgesellschaft mbH	charitable
Naxos-Union Schleifmittel AG	Dr. Arthur Pfungst Stiftung	charitable
NBW Nordberliner Werkgemeinschaft gGmbH	Heidehof Stiftung Gesellschaft mit beschränkter Haftung	charitable
Nemetschek AG	Nemetschek Stiftung	charitable
Niederreuther Verwaltungs-GmbH	Niederreuther-Stiftung gemeinnützige GmbH	charitable
Nixdorf Computer K.	Friedr. V. Spee Stiftung, Westfalen-Stiftung	charitable
OHNSORG TOURNEE und MEDIEN GmbH	Stiftung zur Förderung des Ohnsorg-Theaters	charitable
OKIN Metallverarbeitung	Nikolauspflege - Stiftung für blinde und sehbehinderte Menschen	charitable

Omnibusverkehr Spillmann GmbH	Stiftung zur Förderung von Sozialeinrichtungen in Bietigheim-Bissingen	charitable
Öschberghof GmbH	Siepmann Stiftung	private
Otter Ficker AG	Otto und Eugen Ficker Stiftung	charitable
Otto Group	Michael Otto Stiftung	charitable
Otto Junker GmbH	Otto Junker-Stiftung	charitable
Otto Zimmermann GmbH	Georg Ludwig Rexroth Stiftung GmbH	private
Papier- u. Kartonfabrik Varel GmbH & Co. KG	Gertrud und Hellmut Barthel Stiftung	charitable
Paul Gothe GmbH	Paul Gothe-Stiftung	private
Paulaner Brauerei GmbH & Co. KG	Bayerische Brau-Stiftung Josef Schörghuber	private
Peter Wolters GmbH	Peter Wolters Stiftung	private
Practico GmbH	Gottlob Bauknecht Stiftung	private
Privathotels Dr. Lohbeck GmbH & Co. KG	Dr. Lohbeck-Corvey-Stiftung	private
Franz Langguth Erzeugergesellschaft mbH	Johann Wolfgang Langguth-Stiftung	charitable
pro-beam AG & CO. KGaA	Dobeneck-Technologie-Stiftung	charitable
RAPS GmbH & Co. KG	Adalbert-Raps Stiftung	charitable
August Reiners BAU	Reiners-Stiftung (GmbH)	charitable
Reinhard Gramling GmbH & Co. KG	Günter Graf von Hardenberg-Stiftung	private
Reintjes Gesellschaft mit beschränkter Haftung	Eugen-Reintjes-Stiftung	charitable
Rheinisch-Westfälische Wasserwerksgesellschaft MBH	Stiftung Presse Haus NRZ	charitable

Richard Boorberg Verlag GmbH & Co. KG	Boorberg-Stiftung	charitable
Richard Wolf GmbH Endoskope	Richard und Annemarie Wolf-Stiftung	charitable
RITTAL International Stiftung & Co. KG	Friedhelm Loh Stiftung & Co. KG	private
Ritz Messwandler G.m.b.H.	Dr. Hans Ritz und Liselotte Ritz Stiftung	charitable
RMKS Rhein Main Kies und Splitt GmbH	Anita Thyssen Stiftung	private
Robert Bosch Gesellschaft mit beschränkter Haftung	Robert Bosch Stiftung GmbH	charitable
Robert Bosch Wohnungsgesellschaft mbH	Robert Bosch Stiftung GmbH	charitable
Robert-Bosch-Krankenhaus Gesellschaft mit beschränkter Haftung	Robert Bosch Stiftung GmbH	charitable
Rohtex GmbH	Dr. Schulze-Stiftung	charitable
Rosenthal AG	Verein Genzland Stiftung e.V.	charitable
Bekaert GmbH	Bernhard Rösler Stiftung	private
RTV Family Entertainment Aktiengesellschaft	Stiftung Ravensburger Verlag	charitable
Rudolf Petzold Stiftung GmbH & Co. KG	Rudolf Petzold Stiftung	private
TÜV Nord	RWTÜV-Stiftung	charitable
Saarstahl AG	Montan-Stiftung-Saar	charitable
SAP AG	Dietmar Hopp Stiftung	charitable
DS SMITH PACKAGING ARENSHAUSEN MIVEPA GMBH	SCA Packaging Stiftung & Co. KG	private
DS SMITH PAPER DEUTSCHLAND GMBH	SCA Packaging Stiftung & Co. KG	private

SCA Packaging Stiftung & Co. KG	SCA Packaging Deutschland Stiftung	private
Schauenburg International GmbH	Stiftung Hasenberg	private
Schmidt-Gevelsberg GmbH Internationale Spedition	Hans-Grünwald Stiftung	charitable
Schöck AG	Eberhard-Schöck-Stiftung	charitable
Schöller GmbH	Schöller Familienstiftung	private
Schörghuber Stiftung & Co. Holding KG	Bayrische Braustiftung Josef Schörghuber	private
Schott AG	Carl-Zeiss-Stiftung	charitable
Schüchtermann-Schiller'sche Kliniken Bad Rothenfelde GmbH & Co. KG	Schüchtermann-Schiller'sche Familienstiftung zu Dortmund	private
Schwabenverlag AG	Laubach Stiftung	charitable
Schwarz-Gruppe	Familienstiftung Schwarz	private
Sedus Stoll Aktiengesellschaft	Karl Bröcker Stiftung	charitable
SEW-EURODRIVE-Gruppe	Edeltraut Blickle-Stiftung und Rainer Blickle Stiftung	charitable
sh:z Schleswig-Holsteinischer Zeitungsverlag GmbH	Prof. Dr. Werner Petersen Stiftung	charitable
Shareholder Value Management AG	Share Value Stiftung	charitable
Siemag Weiss GmbH & Co. KG	Bernhard-Weiss-Stiftung	private
Silberberg GmbH	Wohlfahrtswerk für Baden-Württemberg	charitable
SIM Spielbanken Investions und Management GmbH	Stiftung Deutsche Sporthilfe	charitable
Simona AG	Dr. Wolfgang und Anita Bürkle Stiftung	charitable
Sinsheimer Glas- und Baubeschlaghandel GmbH	Alfred Bohn Mitarbeiter-Stiftung	private

SMA Solar Technology AG	Günther Cramer Stiftung	charitable
Smileabit GmbH	Schöller Familienstiftung	private
Software AG	Software Industrie Stift u. Software AG Stiftung	charitable
Sozial-Aktien-Gesellschaft	Stiftung Solidarität bei Arbeitslosigkeit und Armut	charitable
Sparkasse zu Lübeck Aktiengesellschaft	Gemeinnützige Stiftung Sparkasse zu Lübeck	charitable
Sporthotel Reutmühle GmbH	Philipp´sche Stiftung	charitable
SRH Holding	SRH Holding	charitable
Liebenau Lebenswert	Stiftung Liebenau	charitable
Stadtbau Dachau GmbH	Bürgerspitalstiftung	charitable
STAEDTLER Gruppe	Staedtler Stiftung	charitable
Staedtler Mars GmbH	Staedtler-Stiftung	charitable
Stahlgruber Otto Gruber GmbH& Co KG	Stahlgruber Stiftung	charitable
Steinbeis GmbH & Co. KG für Technologietransfer	Steinbeis-Stiftung für Wirtschaftsförderung	charitable
Stuttgarter Gips Verwaltungsgesellschaft mbH	Gips-Schüle-Stiftung	charitable
Südbayerische Wohn- und Werkstätten für Blinde und Sehbehinderte GmbH	Blindeninstitutsstiftung Würzburg	charitable
Imhoff Süsswaren	Imhoff Familienstiftung	private
TCHIBO Holding Aktiengesellschaft (Maxingvest)	Joachim Herz Stiftung	charitable
TEGUT-Gruppe	Gutberlet Stiftung Förderstiftung der tegut…-Gruppe	charitable
TENTE GmbH & Co. KG	TENTE Stiftung Dr. Dietrich Fricke	charitable
Theodor Triebenbacher GmbH	Theodor Triebenbacher Stiftung	charitable

ThyssenKrupp AG	Alfried Krupp von Bohlen und Halbach-Stiftung	charitable
TROPAG Oscar H. Ritter Nachf. GmbH	Oscar und Vera Ritter-Stiftung	charitable
TROX GmbH	Heinz Trox Stiftung	charitable
TRUMPF GmbH & Co. KG	Berthold-Leibinger Stiftung GmbH	charitable
Vector Informatik GmbH	Vector Familienstiftung	private
VIAG AG (E.ON)	Bayerische Forschungsstiftung	charitable
Viessmann Werke GmbH & Co. KG	Hans Vießmann Technologie Stiftung	charitable
Vorwerk & Co. KG	Vorwerk Stiftung	charitable
RNK Verlag Reimer	Stiftung RNK Verlag	private
WALA Heilmittel GmbH	WALA Stiftung	private
Walter Förster GmbH	Walter Förster Stiftung zu Hamburg	private
Walter Rau Neusser Öl und Fett AG	Walter Rau Wohlfahrtsstiftung	charitable
Irle Deuz GmbH	August-Breitenbach-Stiftung	charitable
Wasgau AG	Adrienne und Otmar Hornbach-Stiftung	charitable
Weesbach Aktiengesellschaft	Weesbach-Stiftung	charitable
W-E-G GmbH & Co. KG	W-E-G Stiftung	private
WFMG-Wirtschaftsförderung Mönchengladbach GmbH	Friedhelm Schaffrath-Stiftung	private
Wiemer & Trachte Aktiengesellschaft	Hugo und Johanna Körver Stiftung	charitable
Wikinger Reisen GmbH	Georg Kraus Stiftung	charitable
Wilhelm Narr Apparatebau GmbH & Co. KG	Wilhelm-Narr-Stiftung	charitable

Wilhelm Nusser GmbH Systembau Dauban	Gretel-Nusser-Stiftung	private
WMF Württembergische Metallwarenfabrik AG	Wüstenrot Stiftung Deutscher Eigenheimverein e.V	charitable
Wohnbau GmbH	Stiftung Wohnhilfe	charitable
Wolfahrtswerk Altenhilfe gGmbH	Wohlfahrtswerk für Baden-Württemberg	charitable
Wormland Holding Gesellschaft mit beschränkter Haftung	Theo Wormland Stiftung GmbH	charitable
Wüstenrot Holding Aktiengesellschaft	Wüstenrot Stiftung	charitable
ZEPPELIN GmbH	Zeppelin Stiftung	charitable
ZF Friedrichshafen AG	Zeppelin-Stiftung	charitable
ZF Lemförder Metallwaren AG	Zeppelin Stiftung	charitable
Zuckerraffinerie Tangermünde Fr. Meyers Sohn Holding GmbH	Julien Stiftung	private

Table A3: List of announcements of equity stake changes by foundations in foundation-owned firms

ISIN	Firm	Foundation type	Date	Event *	Stake change
DE0006275001	Arcandor	charitable	06.11.1993	1	>20%
DE0007686826	Gold-Zack	charitable	19.01.1996	0	>50%
DE0005785604	Fresenius	charitable	06.05.1998	0	n.a.
DE0008051004	Wüstenrot	charitable	05.11.1998	1	>40%
DE0007164600	SAP	charitable	14.12.1998	1	n.a.
DE0006275001	Arcandor	charitable	03.03.1999	0	>20%
DE0005775001	Fränkisches Überlandwerk	charitable	13.01.2000	0	n.a.
DE0008051004	Wüstenrot	charitable	11.12.2001	1	>10%
DE0005550636	Drägerwerk**	private	19.01.2003	1	<5%
DE0005313704	Zeiss	charitable	28.06.2003	0	n.a.
DE0006081003	Holsten	charitable	17.07.2003	0	<5%
DE0005313704	Zeiss	charitable	11.12.2003	0	<5%
DE0006081003	Holsten	charitable	28.01.2004	0	>10%
DE0003304002	Software	charitable	14.02.2004	1	<5%
DE0006081003	Holsten	charitable	12.12.2003	1	n.a.
DE0005785604	Fresenius	charitable	23.05.2005	1	<5%
AT0000834007	Wolford	private	13.09.2005	1	n.a.
DE0005785604	Fresenius	charitable	14.10.2005	1	<5%
DE0007500001	ThyssenKrupp	charitable	29.11.2005	1	<5%
DE0007572406	Utimaco Safeware	charitable	15.12.2005	0	n.a.
DE0007500001	ThyssenKrupp	charitable	29.12.2006	1	>5%
AT0000818802	DO & CO	private	29.12.2006	1	>50%
CH0003504856	Kuoni	private	16.01.2007	0	<5%

DE0005550636	Drägerwerk**	private	20.01.2007	0	n.a.
DE0008063306	IKB	charitable	09.03.2007	1	<5%
AT0000818802	DO & CO	private	26.03.2007	0	<5%
DE0003304002	Software	charitable	12.06.2007	0	n.a.
DE0007239402	Simona	charitable	23.06.2007	1	>10%
DE0007500001	ThyssenKrupp	charitable	03.07.2007	1	n.a.
DE0008063306	IKB	charitable	25.09.2007	0	n.a.
DE0007500001	ThyssenKrupp	charitable	06.12.2007	1	<5%
DE0005403901	CEWE	private	21.01.2008	1	n.a.
DE0008063306	IKB	charitable	11.02.2008	0	<5%
DE0005313704	Zeiss	charitable	11.09.2008	0	<5%
AT0000937503	Voestalpine	private	26.02.2009	1	<5%
DE0005785604	Fresenius	charitable	23.04.2009	0	n.a.
DE0003304002	Software	charitable	01.05.2009	1	>10%
DE0005565204	Dürr	charitable	18.08.2009	0	n.a.
AT0000652011	Erste Group	private	30.10.2009	0	>5%
DE0005785604	Fresenius	charitable	26.03.2010	0	n.a.
DE0007074007	KWS Saat	charitable	01.05.2010	1	>10%
DE0005785604	Fresenius	charitable	12.05.2010	1	<5%
DE0006336100	Kuehlhaus Zentrum	charitable	26.05.2010	0	>50%
DE0003304002	Software	charitable	10.06.2010	0	>20%
DE0007239402	Simona	charitable	11.06.2010	1	n.a.
AT0000818802	DO & CO	private	06.07.2010	0	<5%
AT0000834007	Wolford	private	08.07.2010	0	n.a.
DE0005550636	Drägerwerk**	private	15.07.2010	0	<5%
AT0000818802	DO & CO	private	27.11.2010	0	>10%

DE0005785604	Fresenius	charitable	31.01.2011	1	<5%
AT0000969985	AT & S	private	28.09.2011	1	n.a.
DE0005565204	Dürr	charitable	06.12.2011	1	<5%
DE0005785604	Fresenius	charitable	11.05.2012	0	<5%
DE0005785604	Fresenius	charitable	03.07.2012	1	n.a.
DE0008051004	Wüstenrot	charitable	25.10.2012	1	>10%
AT0000937503	Voestalpine	private	13.12.2012	1	n.a.
DE0005772206	Fielmann	charitable	16.12.2012	1	n.a.
DE0007257503	Metro	charitable	18.02.2013	1	<5%
DE0007500001	ThyssenKrupp	charitable	22.04.2013	1	<5%
DE0003304002	Software	charitable	15.06.2013	1	n.a.
DE0005565204	Dürr	charitable	03.07.2013	0	<5%
DE0005565204	Dürr	charitable	05.07.2013	1	<5%
DE0007500001	ThyssenKrupp	charitable	15.08.2013	1	n.a.
DE0005550636	Drägerwerk**	private	14.11.2013	0	n.a.
DE0007500001	ThyssenKrupp	charitable	03.12.2013	0	n.a.
AT0000652011	Erste Group	private	05.12.2013	0	<5%
DE000EVNK013	Evonik	private	14.12.2013	0	<5%
AT0TEAKHOLZ8	Teak Holz	private	29.01.2014	0	>10%
DE000EVNK013	Evonik	private	21.02.2014	0	n.a.
DE0005403901	CEWE	private	09.04.2014	1	<5%
DE0005313704	Zeiss	charitable	19.05.2014	0	n.a.
DE000EVNK013	Evonik	private	12.02.2015	0	n.a.
AT0000937503	Voestalpine	private	09.03.2015	1	n.a.
DE0005565204	Dürr	charitable	16.03.2015	1	n.a.
DE0003304002	Software	charitable	13.05.2015	1	<5%
DE000EVNK013	Evonik	private	21.07.2015	0	<5%

AT0000652011	Erste Group	private	14.10.2015	0	<5%
DE0008051004	Wüstenrot	charitable	13.11.2015	1	n.a.
AT0000818802	DO & CO	private	01.12.2015	0	>5%
CH0003504856	Kuoni	private	14.04.2016	0	>5%
CH0360826991	Comet	private	04.05.2016	1	<10%

* 1 = equity stake increase, 0 = equity stake decrease; n.a. = not available

** preferred stock

Table A4: List of announcements of equity stake changes by other blockholders in foundation-owned firms

ISIN	Firm	Foundation type	Date	Event *	Stake change
DE0006275001	Arcandor	charitable	28.11.1997	0	>10%
DE0006275001	Arcandor	chartiable	03.03.1998	1	n.a.
DE0006275001	Arcandor	charitable	28.07.1998	0	n.a.
DE0006275001	Arcandor	charitable	29.07.1999	0	n.a.
DE0005565204	Dürr	charitable	25.08.2000	1	>5%
DE0008051004	Wüstenrot	charitable	09.04.2001	1	>20%
DE0005565204	Dürr	charitable	17.01.2002	1	<5%
DE0006275001	Arcandor	charitable	03.01.2003	1	n.a.
DE0007074007	KWS Saat	charitable	15.07.2004	0	n.a.
DE0007074007	KWS Saat	charitable	01.12.2004	0	n.a.
DE0005785604	Fresenius	charitable	15.10.2005	1	n.a.
DE0005565204	Dürr	charitable	22.11.2005	0	<5%
DE0005403901	CEWE	private	10.02.2006	0	<5%
DE0007164600	SAP	charitable	09.03.2006	0	n.a.
DE0005403901	CEWE	private	01.06.2006	1	<5%
DE0005403901	CEWE	private	18.07.2006	1	<5%
DE0005403901	CEWE	private	01.01.2007	1	n.a.
DE0005403901	CEWE	private	09.02.2007	1	n.a.
DE0005565204	Dürr	charitable	17.04.2007	1	>5%
DE0005565204	Dürr	charitable	19.06.2007	1	>10%
DE0008063306	IKB	charitable	26.06.2007	1	n.a.
DE0005403901	CEWE	private	14.09.2007	0	n.a.
CH0003504856	Kuoni	private	02.10.2007	1	n.a.

DE0007572406	Utimaco Safeware	charitable	16.10.2007	0	n.a.
DE0005403901	CEWE	private	13.11.2007	0	<5%
CH0003504856	Kuoni	private	05.12.2007	1	n.a.
DE0005772206	Fielmann	charitable	10.12.2007	1	n.a.
CH0003504856	Kuoni	private	05.02.2008	0	n.a.
CH0003504856	Kuoni	private	28.03.2008	0	n.a.
DE0008063306	IKB	charitable	09.04.2008	0	n.a.
CH0003504856	Kuoni	private	21.07.2008	1	n.a.
DE0008063306	IKB	charitable	20.08.2008	1	>40%
DE0008063306	IKB	charitable	17.09.2008	0	>50%
DE0005565204	Dürr	charitable	29.10.2008	1	>5%
CH0003504856	Kuoni	private	04.05.2009	1	n.a.
DE0008051004	Wüstenrot	charitable	18.07.2009	0	<5%
DE0005565204	Dürr	charitable	18.08.2009	1	n.a.
AT0000652011	Erste Group	private	17.11.2009	1	n.a.
DE0006336100	Kuehlhaus Zentrum	charitable	22.12.2009	0	n.a.
DE0003304002	Software	charitable	30.03.2010	1	n.a.
DE0005565204	Dürr	charitable	01.10.2010	0	<5%
CH0003504856	Kuoni	private	05.11.2010	1	n.a.
DE0003304002	Software	charitable	10.01.2011	0	<5%
DE0005565204	Dürr	charitable	17.02.2011	0	>10%
CH0003504856	Kuoni	private	13.08.2012	1	n.a.
DE0008051004	Wüstenrot	charitable	06.09.2012	0	>5%
DE0005772206	Fielmann	charitable	15.11.2012	1	>10%
AT0000937503	Voestalpine	private	04.12.2012	0	n.a.

DE0005772206	Fielmann	charitable	10.01.2013	0	>20%
DE0007500001	ThyssenKrupp	charitable	25.09.2013	1	n.a.
CH0003504856	Kuoni	private	04.10.2013	0	n.a.
DE0007164600	SAP	charitable	29.10.2013	0	n.a.
CH0003504856	Kuoni	private	29.10.2013	0	n.a.
AT0000937503	Voestalpine	private	04.11.2013	1	n.a.
DE0007500001	ThyssenKrupp	charitable	20.11.2013	1	>5%
CH0003504856	Kuoni	private	17.12.2013	0	n.a.
AT0000937503	Voestalpine	private	02.01.2014	0	n.a.
AT0TEAKHOLZ8	Teak Holz	Private	17.01.2014	1	n.a.
DE0007500001	ThyssenKrupp	charitable	05.03.2014	1	>5%
DE0003304002	Software	charitable	15.05.2014	1	<5%
DE0003304002	Software	charitable	10.06.2014	0	<5%
DE0003304002	Software	charitable	23.06.2014	1	<5%
AT0000937503	Voestalpine	private	06.11.2014	1	n.a.
AT0000937503	Voestalpine	private	23.12.2014	0	n.a.
DE0007164600	SAP	charitable	25.11.2015	1	n.a.
CH0360826991	Comet	Private	22.12.2015	1	n.a.
CH0360826991	Comet	private	08.03.2016	0	n.a.
CH0003504856	Kuoni	private	14.04.2016	1	n.a.
CH0003504856	Kuoni	private	02.05.2016	1	n.a.
CH0360826991	Comet	private	05.05.2016	0	n.a.
CH0360826991	Comet	private	07.06.2016	0	n.a.
DE0007500001	ThyssenKrupp	charitable	27.06.2016	1	n.a.
AT0000834007	Wolford	private	14.11.2016	0	n.a.
CH0360826991	Comet	private	19.04.2017	1	n.a.
CH0360826991	Comet	private	19.05.2017	0	n.a.

* 1 = equity stake increase, 0 = equity stake decrease; n.a. = not available