Value Drivers of Shareholder Wealth Effects Through Corporate Spin-offs

A Single-Case Study of the Arjo Spin-off

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Abstract

This empirical study analyzes the value drivers of shareholder wealth effects following a spin-off of a company active in the medical device market, namely Arjo. By conducting a single-case study with a qualitative research approach, the aim is to provide more in-depth research for spun-off units. The authors examine the three most commonly investigated sources of spin-off value creation; information asymmetry, capital allocation and corporate focus.

The authors find that reduced information asymmetry following the spin-off of Arjo can possibly explain the positive share return. The main reasons are attributed to the improved opportunity of estimating the true prospects of the firm and an increased managerial efficiency. Additionally, the authors find that increased corporate focus has had a positive impact on the shareholder wealth effects after the spin-off. Reasons for such effects include a reduction in negative synergies due to an increased ability to focus on important customers and resources closer to the firm's core business. However, the authors are unable to secure a relationship between improved capital allocation and shareholder wealth effects following the spin-off.

The findings support the view that transparency of firms and focus on core business activities are generally appreciated by external stakeholders, affecting the shareholder wealth effects positively. However, the findings related to capital allocation contradict with those of previous research.

Key Words: Spin-off, Corporate Spin-off, Divestiture, Shareholder Wealth Effects, Shareholder Value Creation, Value Drivers, Sources

Preface

This master thesis is conducted during the spring semester of 2019 at Copenhagen Business School. The authors have gained an in-depth knowledge of the chosen subject, and they hope that the thesis and its contributions will inspire researchers to further research on the subject.

The authors would like to start by expressing their gratitude to all of those who have contributed to this thesis. Firstly, the authors would like to thank their supervisor at Copenhagen Business School, Svend Peter Malmkjær, for his excellent supervision and guidance throughout the writing of the thesis. Additionally, the authors would like to thank Annette Lykke at Handelsbanken, Colin Gibson at Bestinver and Niclas Sjöswärd at Getinge, for providing great inputs regarding the external perspective. Finally, the authors would like to express a big thank you to the case company, Arjo, and those involved in providing valuable insights - Joacim Lindoff and Christian Stentoft.

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Definition of Concepts

Divestiture	A type of corporate reduction, where there is typically said to be three main forms; *selloffs*, *equity carve-outs*, and *spin-offs*.
Spin-off	A concept that covers a wide range of phenomena, including corporate spin-offs and research-based spin-offs.
Corporate spin-off	A corporate action when an independent company is created from a part of the parent company, where shares in the new company are given to existing shareholders of the parent company. This thesis will focus on this type of spin-off.
Parent company	The (listed) parent company conducting the spin-off.
Spun-off company	Entity or business unit spun-off from the parent company.
Wealth effects	Increase in share price, and thus, increase in share return and firm value, leading to value creation for shareholders. Also referred to as abnormal stock return, i.e. where the stock return of a certain firm is higher than that of a market index.
Value drivers	Factors affecting shareholder wealth effects after a spin-off, e.g. reduction in information asymmetry, improved capital allocation or increased corporate focus.
Firm value	The value of a listed firm, calculated through its share price multiplied by the number of shares. Firm value may increase through more accurate firm valuations.

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1 Introduction

In this thesis, the authors investigate the underlying value drivers that can explain the shareholder wealth effects following the spin-off of Arjo. Since the spin-off in December 2017, the firm is active in the medical device industry. Studies with similar research questions have mainly focused on the parent company, while the evidence of how this form of corporate restructuring creates value for investors and firms is scarcer for the spun-off company. In the following chapter, the authors present the background of the study, its purpose as well as the research question. Finally, the concepts used throughout the thesis are defined.

1.1 Background

During the 1950s and 1960s, a large number of firms undertook diversification as a growth strategy for their businesses (Berger & Ofek, 1995). Diversification was argued to be a value-enhancing corporate strategy and thus evolved into a corporate trend. The potential benefits of operating various businesses within one firm include; managerial economies of scale, economies of scope in production and marketing, reduced business risk and financial synergies between business units through the existence of internal capital markets (Comment & Jarrell, 1995).

As firms grow larger and further acquire related and unrelated businesses, the complexity of the firms increases as well. Following this comes value reducing effects, such as inefficient investment decisions, poor resource allocation across business units and misalignment of incentives between central and divisional managers (Berger & Ofek, 1995). Consequently, the costs of maintaining control and transparency increase. A large body of research has documented that conglomerate firms run the risk of being valued at a discount relative to peers (Ahn & Denis, 2004). Accompanying these arguments, corporations see the advantages of downsizing and focusing on their core businesses, where corporate divestitures have increased in popularity (Krishnaswami & Subramaniam, 1999). The goal of this strategy is often to remove unrelated business lines and thereby create a less complicated firm with increased transparency, which may attract new investors.

Divestitures are today of high interest among corporate investors and external stakeholders, where these appear to recognize the positive aspects of such actions (Khorana et al., 2011). An increased number of investors believe companies should pursue these corporate strategies more aggressively going forward (Kengelbach et al., 2014). Therefore, it appears as the investor focus in the 21st century has moved from the earlier attention of diversification to promotion of transparency and increased attention towards those parts of the business which generate growth.

A firm may divest parts of its operations in several ways, where the strategy of divesting business units through a corporate spin-off has become common (Lin & Yung, 2013). A corporate spin-off is a completely cash-free transaction, where shares are distributed to existing shareholders of the parent company (Brealey et al., 2017). After the distribution, the subsidiary's management and operations separate from those of the parent. Generally, spin-offs can be motivated as a mean to improve efficiency by reducing the diversity of operations, potentially making the asset an attractive investment (Habib et al., 1997).

In connection with the various motives of spin-offs for firms, the actions are repeatedly associated with greater shareholder wealth effects (Comment & Jarrell, 1995). Extant literature shows that the announcements of spin-offs typically are met with positive reactions from equity markets (Khorana et al., 2011). Specifically, the spun-off subsidiaries have been documented to outperform their industry peers and the market by approximately ten percent during the first three years subsequent to the separation (Cusatis et al., 1993).

Academic studies provide various reasons to explain these shareholder wealth effects. The three most common examples put forth include; reduced information asymmetry between investors and firm management, improved resource allocation resulting from a clearer overview of individual divisions' opportunities, and elimination of negative synergies between business units through increased corporate focus. The documented benefits of spin-offs and higher demand for clearer business models, in combination with increased global competition, impose the need for managers to reformulate their strategies to generate growth and improve efficiency.

1.2 Purpose and Motivation

With an in-depth case study of the sources of shareholder wealth effects following a spin-off, the aim is to provide more research and insights into what the underlying value drivers may be. Existing literature mainly focuses on the parent company's financial performance, and stock returns post-spin-offs, while how spin-offs can create value for the shareholders of the spun-off unit remains unclear. Therefore, the authors would like to contribute to filling this research gap, enabling an understanding of how the spun-off firms ensure increase in shareholder wealth effects after a spin-off. This may also lead to more effective assessments of corporate and investment decisions for managers and shareholders. Furthermore, due to the interest of divestiture as a corporate strategy, the author's ambition is to bring further contributions from spin-offs in the European market, since most research is conducted in the U.S. Aligned with the scarcer evidence in Europe, the authors were unable to find any academic studies in the Nordic medical device market, which this study aims to create.

Additionally, the authors seek to complement current spin-off research by performing a single-case study with a qualitative research approach, and thus, investigating a unique case with an in-depth analysis of the value drivers. To the authors' knowledge, there has not been any similar case studies for the spin-off of Arjo. Lastly, the authors seek to test whether theories used in other spin-off studies applies to this specific organizational context. Specifically, the theoretical framework consists of the agency theory, transaction cost theory and resource-based view.

1.3 Research Question

The scarcer explanation on why a spin-off would create value for shareholders in the spun-off company as well as possibly no contributions to the field in the Nordic medical device market motivate the authors to explore the area further. To that end, the thesis intends to answer the following research question:

What underlying value drivers explain the shareholder wealth effects following the spin-off of Arjo?

The research question will be answered through an examination of the three most common value drivers of shareholder wealth effects from spin-offs; information asymmetry, capital allocation, and corporate focus.

1.4 Delimitation

This thesis aims to give an overview of the implications of spin-offs and will focus on a company active in the medical device industry, namely Arjo. Thus, it is not the aim of the study to analyze the sources of shareholder wealth effects after spin-offs in the medical device industry in general, but instead in a specific organizational context. Furthermore, when referring to possible wealth effects, these will be understood from the shareholders' perspective, where the stock return will be the basis for analysis. The thesis also directs towards firms which aim to improve this wealth. It should also be noted that the thesis analyses the spin-off wealth effects for both passive and active shareholders, that is, investors who hold stocks in the parent firm pre-spin-off as well as those who actively trade the spun-off unit's stock. Lastly, previous research has investigated additional factors explaining shareholder wealth effects. Examples include investor attitude, tax, and regulatory aspects as well as takeover activity. However, as the authors of this thesis wish to investigate the most commonly used factors in spin-off research, the thesis does not focus on these factors.

1.5 Relevance for Master Program

This thesis is part of the Master of Science in Accounting, Strategy & Control (ASC) and Finance & Investments (FIN) at Copenhagen Business School (CBS). Both master programs introduce investment and organizational structure strategies from a corporate finance perspective, which is applicable when investigating corporate spin-offs. Furthermore, the ASC program mainly focuses on identifying potential strategic and operational problems within firms, where recommendations are introduced to coordinate various parts of the organization in solving the issues. The FIN program, on the other hand, emphasizes the importance of financial markets as a source of capital, but also as a source of information for decision making. Thus, the two programs complement each other in the sense that one has a higher strategic and internal concern, whereas the other present a more external focus.

1.6 Target Group

This thesis is directed to various groups. Firstly, the main target group of the study is academic students and scholars with interest in corporate spin-offs and how such corporate change can affect shareholder value. Secondly, the authors hope is for researchers interested in the area to find the results useful as a basis to build future research upon. Lastly, the thesis is directed to practitioners and investors who are curious about how spin-offs affect shareholder wealth effects and its implications concerning business and investment practice.

1.7 Definitions

The following section outlines the concepts used throughout the thesis. The most common divestiture methods are defined, where spin-offs will be further explained in the literature review in *chapter 3*.

1.7.1 Divestiture Methods

Corporate restructurings refer to actions taken by a firm to change the ownership and operational structure of the company (Gaughan, 2015). The actions may be motivated by expansion or reduction in the firm's operational asset base, often aimed at improving the company's strategic, organizational and financial outcome (Moschieri, 2011; Khan & Mehta, 1996). Examples of corporate expansions are mergers and acquisitions (M&A), while examples of corporate reductions are various types of corporate divestitures (Gaughan, 2015).

There are typically said to be three primary forms of corporate divestitures, namely *selloffs*, *equity carve-outs*, and *spin-offs* (Brealey et al., 2017). When choosing between these divestiture methods, a comparison of the advantages and disadvantages of the alternatives is generally made (Chemmanur & Liu, 2011; Pham et al., 2018). Ultimately, the alternative that leads to the most significant benefits relative to its costs is most likely the alternative the firm will choose. Equity carve-outs and selloffs will be described briefly below, whereas spin-offs will be the focus for the remainder of the thesis.

A selloff is the simplest and most common way to divest an asset, referring to the sale of a part in the firm. Figure 1 visualizes the procedure. The part in question is often a division, where the sale aims to increase cash flows or remove a poor fit with the rest of the firm. On average, selloffs increase productivity and can be seen as a mean of transferring business units to companies which can manage them more effectively. Thus, selloffs are often positive news for investors in the selling firm. (Brealey et al., 2017).

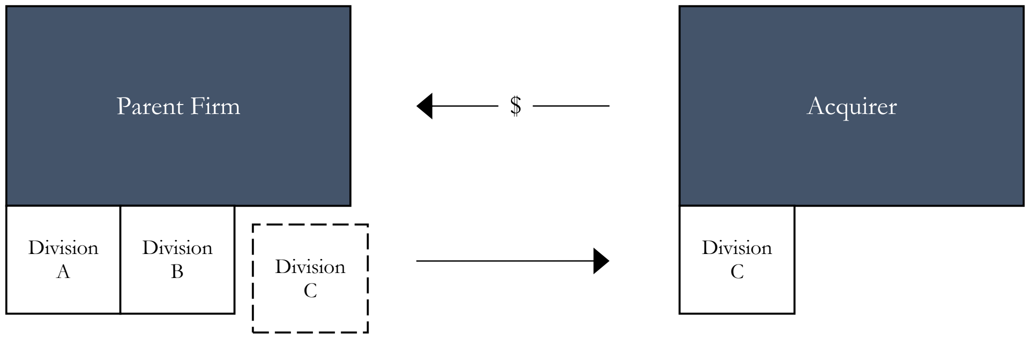

Figure 1. Selloff as a Divestiture Method
Source: Own illustration

In the case of an equity carve-out, an independent company is created from a part of the parent company's operations and assets. The shares in the new company are sold in a public offering, where the parent usually is left with majority control of the carved-out division, which is shown in figure 2. Equity carve-outs can be seen as a mean to establish a market for the subsidiary's stock, before spinning off the remaining shares to its stockholders. (Brealey et al., 2017)

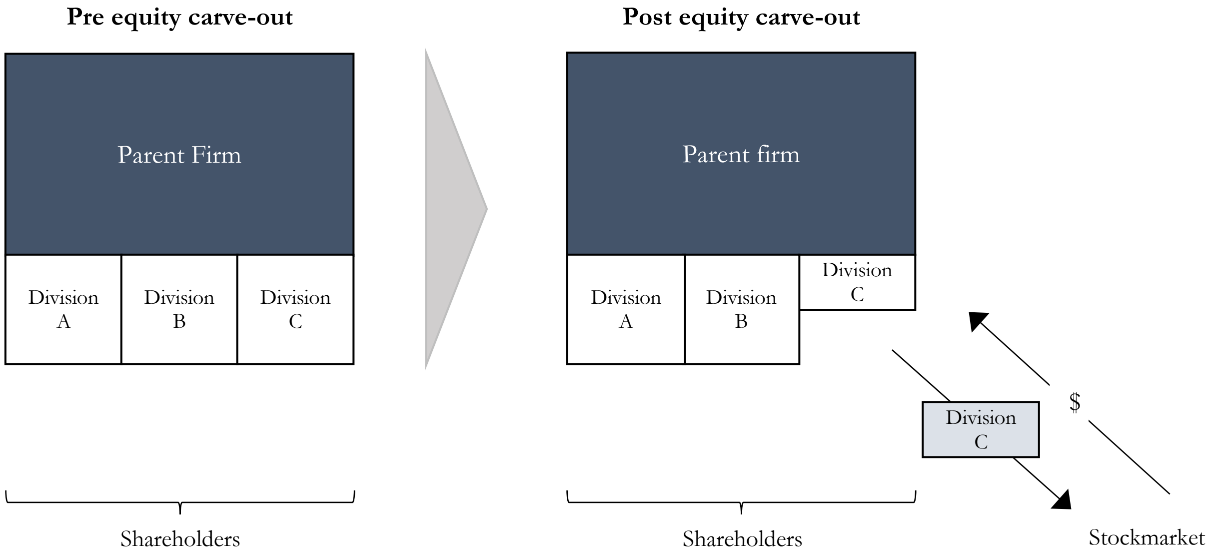

Figure 2. Equity Carve-out as a Divestiture Method
Source: Own illustration

Spin-offs are similar to equity carve-outs, except that shares in the new company are not sold in a public offering, but instead given to existing shareholders of the parent company (Brealey et al., 2017). A spin-off allows shareholders and investors to invest solely in one part of the business. The pre-spin-off, as well as the post-spin-off setting, is shown in figure 3.

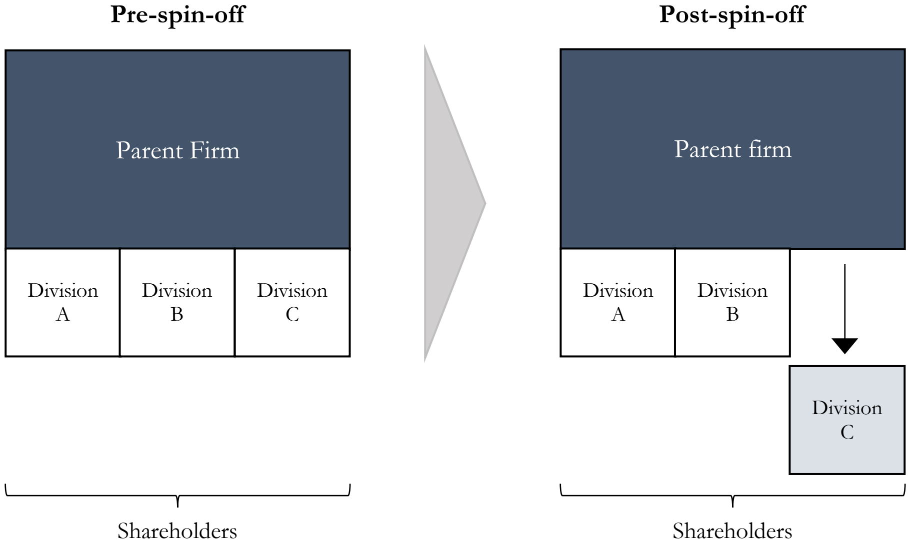

Figure 3. Spin-off as a Divestiture Method
Source: Own illustration

1.8 Structure of the Thesis

The remainder of the thesis is structured as follows:

Chapter 2 describes the methodology of the thesis. The research approach and design are explained, as well as criticism and limitations of the methods used.

Chapter 3 describes spin-offs in more detail and reviews previous research on corporate spin-offs as well as potential wealth effects explanatory factors.

Chapter 4 introduces the case company of the thesis. The chapter will describe the firm's history, industry, and the spin-off event.

Chapter 5 presents the theoretical framework, which will be the basis for the analysis of the potential sources of spin-off wealth effects.

Chapter 6 describes the empirical findings and analysis obtained by applying the theoretical framework of the thesis.

Chapter 7 reviews the findings in relation to previous research, further discusses the implication of the analysis presented in chapter 6 and presents the authors' general reflections of the outcome.

Chapter 8 concludes the key findings of the thesis and presents its contributions as well as the authors' suggestions for further research.

2 Methodology

This chapter presents the methodology of the thesis, where the authors have chosen a qualitative research approach and a single-case study research design. Firstly, the scientific perspective and general approach of the thesis is discussed, followed by a discussion of the case study research design and quality criteria following the choices. Secondly, a detailed description of the various decisions in the research process is presented, including the conducted interviews.

2.1 Research Approach

A proper research process is established on three dimensions; methodology, epistemology, and ontology. While methodological considerations refer to how to accomplish a study, epistemology and ontology relate to the philosophical perspective of knowledge. Epistemology is defined as a subjective dimension of knowledge, reflecting what knowledge is, how it is created and the relationship between the researcher and the subject studied. Ontology is the objective perspective of knowledge and refers to the nature of reality and how reality is considered. (Bryman & Bell, 2015)

In contrast to existing research, which will be discussed in the literature review in *chapter 3*, this study follows an inductive approach and is carried out using a qualitative research method. Existing research generally investigates corporate spin-off effects on shareholder wealth and the sources of such effects from a quantitative perspective, emphasizing quantification in the process of collecting and analyzing data. A qualitative approach, in contrast, emphasizes words rather than quantification in the same process (Bryman & Bell, 2015). The collection of data results in non-standardized data, requiring classification into categories (Yin, 2011). The inductive approach implies that the theory is an outcome of research instead of formulating hypotheses based on existing empirical evidence, which a deductive approach suggests (Bryman & Bell, 2015). More specifically, applying an inductive approach means that the researcher draws generalizable inferences out of observations by building theories and expectations from observations (Maaløe, 2002).

Applying a qualitative research method generally follows a realist orientation in the epistemological approach, assuming the existence of a single reality that is independent of any observer (Yin, 2014). Furthermore, in accordance with existing qualitative research, this study follows a constructionistic orientation in the ontological approach. The constructionistic orientation asserts that social reality is continuously shifting, and social phenomena are results of social interaction (Bryman & Bell, 2015). In contrast, quantitative research generally enhances an objectivistic approach and views social reality as an external and objective reality. A qualitative approach in a spin-off investigation could uncover case-specific characteristics that would not be enhanced through an objective standpoint.

Additionally, the authors chose to not include a quantitative research method due to various reasons. Previous research mainly focuses on the parent firm when investigating the wealth effects for shareholders, addressing the effects of the spin-off announcement and in the long-term. As this study focuses on the spun-off firm, it is not possible to observe the effects or underlying value drivers at the announcement of the spin-off, as the company by that time is a part of the congregated firm. Nonetheless, it is possible to investigate the effects and sources of long-term shareholder wealth for spun-off firms, with the first public traded day as a starting point. Previous research has used cumulative returns (CRs) or buy-and-hold returns (BHRs) to perform such methods, with variables tested through t-tests and Mann-Whitney U test (Veld & Veld-Merkoulova, 2004). However, such investigations of long-term performance require larger sample sizes. Therefore, the authors chose not to perform a quantitative perspective, as the significance level would suffer due to only one firm in the sample.

The research approach of this study is of an explanatory nature. The explanatory approach is compatible with tracing operational relationships over time rather than simple frequencies (Yin, 2014). This study wishes to investigate the sources of shareholder wealth effects following a corporate spin-off and therefore seeks to explore connections to explain spin-offs in the medical device industry.

2.2 Research Design

This study follows a case study research design, which is appropriate when applying a research approach of explanatory nature (Yin, 2014). Yin (2014) defines a case study as "…*an empirical inquiry that investigates a contemporary phenomenon (the "case") in depth and within its real-world context, especially when the boundaries between phenomenon and context may not be clearly evident*." (Yin, 2014, p.16). The case study methodology is the preferred strategy when investigating "how" and "why" questions, and when the focus is on a contemporary and complex phenomenon (Yin, 2014).

Thus, the case study research approach applies to this study's research question, as it wishes to gain an in-depth understanding of *how* a corporate spin-off effects shareholder wealth. Furthermore, as corporate spin-offs are not frequently occurring in the medical device industry, especially not in the Nordic countries (Lykke, 2019), the chosen case can be seen as modern and intricate, making the case study research approach further appropriate.

2.2.1 Quality Criteria of Case Study Research Designs

Yin (2014) presents four logical tests in judging the quality of a case study research design. Table 1 lists the tests and explains in which phase of this study the tests are applicable. After that, an explanation of each test is presented, where the application of the tests will be described in more detail under each phase of the research process in *section 2.3*.

Logical Tests*	Phase of Research*	Tactics to maximize the quality in this study
External Validity	Design of Case study *Section 2.3.1*	▪ Single-case study: Use of theoretical setting to build up the case and the research question
Construct Validity	Preparation of Data collection *Section 2.3.2*	▪ Use of multiple sources of evidence
Reliability	Preparation of Data collection *Section 2.3.2*	▪ Use of academic literature and peer-reviewed journals. ▪ Maintain a chain of evidence through the transparency of the data collection process
Internal Validity	Analyzing the Data *Section 2.3.4*	▪ Address rival explanations ▪ Pattern matching logic

Table 1. Logical Quality Tests of a Case Research Design

**From Yin (2014)*

External Validity

When conducting a case study, it can be problematic to know whether the study's findings are generalizable beyond the immediate case study, meaning that the results are only applicable in a specific setting. This is a major concern for case studies where critics mean that case studies, especially single-case studies, offer an inadequate basis of generalization (Yin, 2014). However, case studies seek to generalize the results through analytical generalization, while statistical generalization is the inference about a population based on empirical data collected from a sample. Analytical generalization is a way to see if and whether the results of the study support or contravene with other research (Maaløe, 2002).

To ensure external validation in a multiple case study, it is vital to use and document replication logic. Thus, the theory should be tested by replicating the findings in another investigation object to test if the finding can be duplicated and predict similar results. On the other hand, a single-case study should instead seek to develop and then discuss how its findings might have implications for an improved understanding of concepts. This analytical generalization denotes generalizing a set of results to some broader theory. (Yin, 2014)

Construct Validity

In a case study research, it can be problematic to find and establish correct operational measures for the concepts studied. This also implies that investigators may do subjective judgements in the collection of data. To construct validity, it is therefore important to (1) select what specific types of changes which are to be studied and relate these to the original objectives of the study, and (2) demonstrate that these specific measures of changes do reflect the selected changes in question. Practically, this means using multiple sources of evidence. (Yin, 2014)

Reliability

To minimize biases and errors in the case study, the reliability is tested. The reliability aspect of the case study infers that if investigators later follow the same procedures when conducted the case study as described once more, the same findings should be derived. Therefore, it is essential to document research procedures thoroughly and maintain a chain of evidence through the transparency of data collection processes. (Yin, 2014)

Internal Validity

Internal validity is especially a concern for explanatory case studies in which the investigator wants to determine whether event x led to event y. There is a possibility that the research incorrectly concludes a causal relationship without an awareness of another factor which actually is the reason for event y. Internal validity also raises concerns from a broader perspective about the study's ability to make any correct inferences. These concerns can relate to questions such as if all rival explanations and possibilities have been considered, if the evidence is convergent, or if the analysis generally appears questionable. Ways of preventing this are to address rival explanations and do pattern-matching logic. (Yin, 2014)

2.3 Research Process

The following section will go through the research process of this study, which is visualized in figure 4. The case study research process follows the one suggested by Yin (2014), which implies four phases: (1) designing the case study, (2) conducting the case study, including (a) preparation for data collection and (b) collecting the evidence, (3) analyzing the data, and finally, (4) reporting the findings. The development of the case study design needs to maximize the four conditions related to design quality presented in 2.2.1: external validity, construct validity, reliability and internal validity (Yin, 2014). Thus, each phase of the research process will be described below together with an explanation of how the four quality conditions have been applied.

Figure 4. Research Process
Source: Own illustration, inspired by Yin (2014)

2.3.1 Designing the Case Study

When designing the research, it is essential to link the data to the initial question of the study (Yin, 2014). Before forming the research question of the study, the research process started by conducting a literature search to explore the research field of divestitures and spin-offs, where a Systematic Literature Review (SLR) will be presented in *chapter 3*. The initial search revealed extensive studies showing that corporate spin-offs create shareholder value. However, few studies show empirical evidence in *how* corporate spin-offs creates shareholder wealth and the sources behind such effect, resulting in development of the research question of this study. The thesis has an open research question, implying that it is formulated to take a broad view of the problem and provides a general direction of the research, rather than testing specific hypotheses and searching for a limited set of possible answers (Jonker & Pennink, 2010). Brinkmann and Kvale (2015) suggest that a case design should enable to continually adapt to new circumstances in the field through changing in the selection of subjects and questions along the way, which an open research question enables. However, it may be time-consuming to use an open research question, as it requires the information collected to be assessed correctly and involves significant data processing. Despite such drawbacks, the authors still find the open research question appropriate as it may enable to obtain a balanced understanding of the organizational reality.

Case Selection

The medical device industry has generally not been characterized by corporate spin-offs, implying that the recent and unique Arjo spin-off is interesting to investigate. Arjo was spun-off from its parent company Getinge in December 2017, meaning that at the point of writing this study, Arjo has been a standalone firm for less than one and a half years. An investigation of a recent event allows access to information from counterparties involved in the spin-off, both from the perspective of the congregated firm before the spin-off as well as the two firms separately. Moreover, it is possible to investigate the sources of wealth effects of the spin-off while it is still a recent case. However, previous research defines an investigated period between 6 to 36 months for spin-offs as long-term (Desai & Jain, 1999; Veld & Veld-Merkoulova, 2004; Sudarsanam & Qian, 2007). Consequently, this study only investigates the long-term effects for up to 16 months.

Existing research mainly focuses on the parent company, i.e. the firm which has spun-off one of its subsidiaries. The parent firm would in this case be Getinge. In contrast, this study investigates the spin-off from the perspective of the spun-off company, namely Arjo. This focus complements other research and enables an interesting analysis of how the spun-off firms have ensured an increase in shareholder wealth effects since the spin-off.

Another reason for focusing on the spun-off firm is due to case-specific reasons. Since the spin-off, Getinge has faced several issues regarding its quality management system, feedback of product approvals, compliance issues in Brazil and a litigation process in the U.S., all resulting in one-time hits on the firm's financial statements and a negative effect on the share price (Sjöswärd, 2019; Lindoff, 2019). Since these issues are not linked to the spin-off event, it is unappropriated to investigate the shareholder wealth effects of the spin-off from the parent firm's perspective in this case. Furthermore, another reason for selecting the spun-off firm as an investigation object is the access to counterparties and professional connections with Arjo, which provides availability for information through relevant interview objects.

Single-case Study Design

A single-case study design is appropriate when investigating a critical, unique or extreme case (Yin, 2014). To the authors' knowledge, there is no recent or direct comparable spin-off in the medical device industry. This is especially true in the Nordic countries, where there have not been any corporate spin-offs within the medical device industry recently (Lykke, 2019). The motivation for using a single-case study is therefore due to its uniqueness. Previous research within spin-off literature focuses on shareholder wealth effects from a quantitative perspective, yielding a consistently positive effect on shareholder wealth. However, the reasons behind and why spin-offs are increasing shareholder wealth effects on a specific case basis have few shreds of evidence. Therefore, this single-case study aims to investigate such reasons in an in-depth case context.

Multiple-case designs are often preferred over single-case designs, due to the analytical benefits from having two or more cases. Analytical conclusions that arise independently from several cases can increase the significance of the findings than conclusions from a single case. Evidently, single-case studies imply issues in the ability to generalize, where certain circumstances may affect the single case, leading to incorrect inferences. Multiple-case designs might also provide contrasting of situations which, from an external validity perspective, strengthen the findings. (Yin, 2014)

Instead of seeking statistical generalization, a single-case study should seek to develop and then discuss how its findings might have implications for an improved understanding of particular concepts (Yin, 2011). Hence, the arguments should not be seen as proof, but rather how the findings may be connected to research in general. Despite the lack of statistical inference from the results, a single-case study is nonetheless interesting (Maaløe, 2002).

Theory Development

Theory development is central when designing case studies (Yin, 2014). It is essential to know whether the purpose of the study is to develop or test a specific theory (Maaløe, 2002). The purpose of this study is to test whether frameworks and hypotheses developed in other studies can help answer the research question. More specifically, this means investigating if theories developed in other research can explain the shareholder wealth effects in this unique spin-off case, while also see if it is applicable when investigating the spun-off firm. After processing related research, three theories were found common in the area, where the theoretical framework of the thesis will be presented in *chapter 5*. The theoretical propositions provided guidance in determining what data to collect and the strategies for analyzing the data. However, as the related research mainly takes a quantitative approach, this study investigates whether the theoretical propositions are applicable in the qualitative contexts of this study.

External Validity in Design of Case Study

The theoretical framework plays a critical role in the ability to generalize the results from a case study (Maaløe, 2002). In multiple-case studies, documentation of replication logic helps to ensure external validity, thus making sure that the results are generalizable between the multiple cases in the study. To ensure external validity in a single-case study, it is instead essential to base the investigation on a theoretical setting from academic literature. Therefore, the theoretical propositions were obtained from other research studies in the area, and thus, making sure that the results are not only applicable in this specific setting. A consequence of investigating a single-case within an industry where spin-offs are not very common, is difficulties in generalizing the results statistically within this industry. However, the analytical generalization of the study is still present, as the study seeks to discuss its findings and implications for the particular concepts and theories.

2.3.2 Conducting the Case Study: Preparation for Data Collection

Having established the overall research objective, the next task is to create a data collection strategy. There are numerous methods for collecting data in case studies, where it is anticipated to use multiple sources of evidence. It is important to triangulate the sources and to let prior development of theoretical propositions guide the data collection and analysis. (Yin, 2014)

Secondary Data

This thesis uses secondary data, which is defined as the data that has been collected, analyzed and expressed by others (Yin, 2014). The secondary data mainly relies on scientific articles and renowned academic publications, which helps to secure a certain level of academic integrity. Within the chosen research area, there is a great quantity of literature. This facilitates the process of validating theories and evidence, where the selecting process of relevant articles is an important task. The secondary data also includes data from company websites, internal records, formal studies, market research reports, news articles, and market data. The objective of using this type of secondary data is to validate and expand evidence from other sources (Yin, 2014).

There are several benefits of using secondary data in the data collection process. For instance, by using secondary data in the initial data collection process, one can reduce the amount of unnecessary information. Knowing the type of information needed to investigate the research question as well as what data which needs to be validated, will later focus and direct the collection of primary data. Another advantage of using secondary data is resource savings, as it implies less time spent on connecting and finding reliable primary sources, which requires extensive analysis and preparation to collect. Lastly, the high availability of secondary data facilitates for the public to examine the research findings, proclaiming it to more reliable sources. (Yin, 2014)

As secondary data has been expressed by other academic researchers, there is always a risk of publications being influenced by individuals' conclusions and opinions. Therefore, the authors in this study have had a general awareness of this potential bias by not basing conclusions on single source contributions, thereby minimizing the problem. Another issue which should be raised is that information gathered from the case company's website brings a degree of subjectivity. However, the information has been compared with statements from analysts and commentators in the market, in order to achieve a higher degree of objectivity.

Primary Data

Primary data becomes essential when there is no secondary data available, where the data can be used for testing the exact criteria which the research question denotes (Yin, 2014). Due to the explanatory nature of this study, the data collection process for the primary data is conducted through qualitative interviews. The use of interview data as a data collection method enables a more in-depth understanding of the subject and the case company, which is not accessible through secondary data. However, results from interviews are not quantifiable, making the measurement of the research question subjective, which may lead to incorrect conclusions. Interviews are also often dependent on the respondent's individual opinion, potentially leading to an additional degree of subjectivity. This has been considered and mitigating through having interview objects with different perspectives, which is described below.

The primary data in this thesis consists of five interviews that followed a semi-structured interview design. This implies that a number of predetermined questions were complemented by questions evolved during the interview process (Brinkmann & Kvale, 2015). The authors chose not to have fully structured or unstructured interviews, where questions are either asked in a standardized or completely unstandardized order, since a mix of both fixed sets of questions as well as follow-up questions facilitates a depth of the answers, while still obtaining the desired structure. Furthermore, in accordance to the inductive approach of this study, the choice of having semi-structured interviews allows the researchers to keep an open mind, which may facilitate the emergence of additional concepts and theories of the data (Yin, 2014). Lastly, it facilitates comparison between the different participants' responses, while also allowing reactions of their personal experiences (Brinkmann & Kvale, 2015).

The selection of interview objects was based on expectations of the respondents' information context, together with an anticipation that the respondents' knowledge and insights would complement each other. To make sure that the interviews would cover the different aspects of the research question, individuals from both the parent and the spun-off company as well as external parties were interviewed. Thus, the interview objects were selected based on four focus areas; the spin-off from (A) an internal perspective, (B) external perspective from the parent firm, (C) external perspective from the market, and (D) an analysis of factors explaining shareholder wealth effects covering both an internal and external perspective. The focus areas are visualized in figure 5.

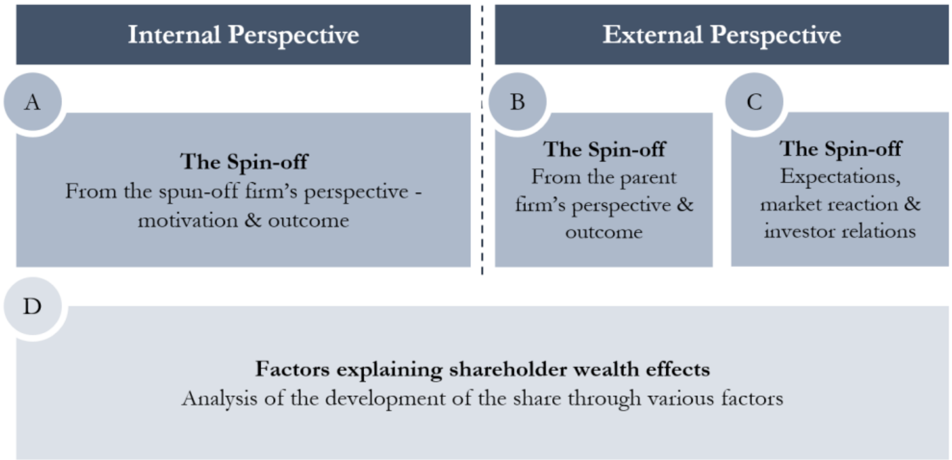

Figure 5. Focus Areas of Interviews
Source: Own illustration

From the internal perspective, the interviewees were Joacim Lindoff, President and CEO at Arjo, and Christian Stentoft, EVP of Corporate Development and Projects at Arjo. Lindoff had the ultimate responsibility of the spin-off, while Stentoft was the project leader from the Arjo side of the spin-off. From the external perspective, one interviewee was Niclas Sjöswärd, CFO of Acute Care Therapies at Getinge, who was the project leader from the Getinge side of the spin-off. Furthermore, other interviewees from the external perspective were Colin Gibson, Senior Equity Analyst for the industrial sector at Bestinver, which is the fourth largest investor of Arjo, and Annette Lykke, Equity Analyst within Medtech and Foodtech at Handelsbanken. The five interview objects are presented in table 2, together with the focus areas mapped out from figure 5, as well as a description of key insights to be derived from the interviews. As can be seen, all interviews were used in order to analyze the factors potentially explaining the shareholder wealth effects following the spin-off of Arjo.

All of the five interviews were conducted individually with a duration of 30-60 minutes and were recorded for the authors' reference. The number of interviews was based on the balance between obtaining enough data to make analytical generalizations and to have sufficient time and resources to complete a thorough analysis (Brinkmann & Kvale, 2015).

#	Interview Object, Role & Company	Focus of Interview	Length & Location	Date
1	Joacim Lindoff *President & CEO* Arjo	Focus: A & D Able to provide key insights on internal processes and external relations to stakeholders when comparing pre- and post-spin-off setting	60 min Arjo's HQ in Malmö, Sweden	2019-03-20
2	Colin Gibson *Senior analyst, Industrial sector* Bestinver	Focus: C & D Able to provide key insights on general opinions about spin-offs and Arjo's maintenance of investor relations	45 min Conference call	2019-03-21
3	Christian Stentoft *EVP Corporate Development & Projects* Arjo	Focus: A & D Able to provide key insights on corporate strategy as well as internal processes before and after the spin-off	60 min Arjo's HQ in Malmö, Sweden	2019-03-21
4	Niclas Sjöswärd *CFO Acute Care Therapies* Getinge	Focus: B, D & potentially A Able to provide key insights on the processes in Getinge group, as well as opinions about the spin-off	30 min Conference call	2019-03-28
5	Annette Lykke *Equity analyst MedTech and FoodTech* Handelsbanken	Focus: C & D Able to provide key insights on expectations of the spin-offs, its market reactions and differences to other spin-offs	30 min Handelsbanken, Copenhagen, Denmark	2019-05-03

Table 2. Overview of Interview Objects

Development of Interview Guides

Individual interview guides were sent out to all five interviewees in advance and can be found in Appendix 1-5. The interview guides were designed with the research question as a starting point. The reason is the essentiality to persistently identify the intention of the interviews and how they will reveal information, which can be used to analyze the research question (Brinkmann & Kvale, 2015). This thesis investigates three underlying value drivers of shareholder wealth effects after a spin-off, where each value driver was allocated to three theoretical perspectives, which will be further described in *chapter 5*. The theoretical perspectives together with the value drivers were examined through numerous interview questions. Accordingly, varied and rich information was obtained by approaching the value drivers through the theories from several angles (Brinkmann & Kvale, 2015). The interview questions were formulated to be of an open structure, as such design provides complete answers (Brinkmann & Kvale, 2015). Furthermore, the authors made sure that no interview questions were too leading, which enabled more freely answers of the respondent.

The interview guides were sent out in advance due to the anticipation of obtaining more in-depth answers by allowing the participant time to think through the answers. However, such an allowance might lead to missing out on spontaneous reactions and answers on the questions. Furthermore, it entails a risk of leading the participant into the explanation, instead of thinking freely about the question. To mitigate this, the interviewees were given an opportunity to present other potential factors that might explain increased shareholder wealth effects than those mentioned, by having initial questions that were stated more openly. Consequently, participants were encouraged to consider other possible explanations. This also meant not describing various aspects in too much detail beforehand, since this may lead to wrong interpretations for the interviewee (Brinkmann & Kvale, 2015). Also, the interviewees were given an opportunity at the end of the interview to bring up opinions or thoughts which had not yet been touched upon in the interview, further increasing the likelihood of covering all important aspects of the research question.

Construct Validity in Data Collection

To construct validity, the interview data were triangulated in three ways. Firstly, individuals were interviewed from both the parent company and the spun-off unit. This allowed comparison and validation of the impressions between informants from both parties involved in the spin-off.

Secondly, an investor and analyst were interviewed in order to obtain an external and broader perspective of the spin-off event, as well as to get further advanced insights into the research area. Lastly, the interview data were cross-checked by using secondary sources such as press releases, analysts' reports, and corporate documents. By triangulating the data, validity is constructed as the multiple measures develop convergent evidence of the same phenomenon (Yin, 2014). As interviews depend on subjective impressions of the situation, interview techniques might give an impression of not being a valid method. However, validation becomes a matter of the researcher's ability to continually question, check and theoretically interpret the findings (Brinkmann & Kvale, 2015).

Reliability in Data Collection

To create reliability through the data collection process of secondary data, it is important to critically review the source used to assess their reliability, as there is a risk of the original meaning being incorrectly interpreted (Bryman & Bell, 2015). This study is mainly based on academic literature and peer-reviewed journals, all which are carefully examined, enabling the data collected to be derived to correct inferences. Reliability in the setting of interviews often refers to the issue of whether a finding is reproducible at other times and by other researchers. This is especially discussed in relation to leading questions, which may unintentionally influence the answers (Brinkmann & Kvale, 2015). The reliability of the interview data collected is therefore increased by maintaining a chain of evidence through great transparency of the data collection process, where it is clearly described how the interviews were conducted.

2.3.3 Conducting the Case Study: Collecting the Evidence

The interviews were conducted based on the interview guides sent out to the participants. The predetermined questions in the guides were complemented by questions which evolved during the interview process. This created a possibility to deepen the interviews and have a reflective approach to the knowledge searched for (Brinkmann & Kvale, 2015). The interview process was assessed from a thematic perspective, meaning that the questions were related to the three theories used in the thesis. The interview questions were specified after the anticipations of the participants' knowledge and insights.

The interviews with Joacim Lindoff and Christian Stentoft from Arjo took place at Arjo's headquarters in Malmö, while the interview with Annette Lykke took place at Handelsbanken in Copenhagen. Moreover, the interviews with Colin Gibson from Bestinver and Niclas Sjöswärd from Getinge were conducted through respective conference calls. The interviewer and interviewee are influenced by the context and setting of the interview (Brinkmann & Kvale, 2015). Furthermore, the social interaction between the two parties influences the outcome. This means that other results may have been derived in another setting. The authors chosen way of conducting the interviews were mainly based on the ability to travel to the respondents' locations, ensuring that the interaction and efficiency were optimized in relation to the circumstances.

After the interviews, a memo was sent out to each participant, which consisted of conclusions of the interviewee's answers and statements. As the memos were accepted, the participants confirmed that the content and intention of his or her answers were correctly interpreted. Thereafter, the interviews could be used as a source of primary data in the thesis. The accepted memos can be found in Appendix 6-10.

2.3.4 Analyzing the Data

In *chapter 6*, the empirical findings and analysis from the data collection is organized through the theoretical propositions of the thesis. This helps to point out explanations and relevant contextual conditions to the research question (Yin, 2014). The analysis is based on pattern matching logic, which is one of the most desirable analysis techniques for case studies. Such logic compares the data collected from the interviews with predicted patterns derived from theories. The theories used in this thesis are agency theory, transaction cost theory and resource-based view, which all have documented predicted patterns related to the research question. Each of the predicted patterns is assessed through a combination of the outcome from the interviews and previous research. If each of the outcomes has found to be the initially predicted values and alternative patterns of the predicted values have not been found, strong causal effects can be made (Yin, 2014). After the analysis, the findings are discussed in relation to previous research in *chapter 7*.

Internal Validity in Analyzing the Data

Internal validity is especially a concern for explanatory case studies when the investigator aims to determine whether event x led to event y. As the share price of a firm is affected by multiple sources, such as market sentiment as well as fundamental factors regarding macroeconomic aspects and financial performance (Brealey et al., 2017), it can be difficult to only trace the shareholder wealth effects following a spin-off from the factors considered in this thesis. Furthermore, the multiple sources are frequently interconnected, meaning that market sentiment typically affects fundamental factors such as firm valuation, and fundamental factors also affect market sentiment. To minimize the risk of incorrect inferences and conclusions, this study seeks to address rival explanations and convergent evidence when comparing the findings with those of previous research. There is however a risk that other aspects, which have not been considered in this thesis, can answer the research question. Examples include investor attitude, tax and regulations, and takeover activity. To mitigate this risk, pattern matching logic described above helps a case study to strengthen its internal validity (Yin, 2014).

2.3.5 Reporting the Findings

The reporting of the findings that is considered relevant in answering the research question will be presented in *chapter 6*. As it follows a theory-building structure, the logic depends on the specific theories. Thereafter, the findings will be discussed in relation to previous research, in order to uncover connections of the particular concepts developed by academic papers.

3 Literature Review

The following chapter will present the literature review of the thesis. Firstly, spin-off as a divestiture method will be presented in more detail. Secondly, a Systematic Literature Review (SLR) will be described to help the reader get an overview of academic research within the chosen field of the study. Thirdly, the chapter will present the outcome of the literature search, i.e. relevant previous research related to the research question. Lastly, the chapter will present a summary of the literature review.

3.1 Spin-offs

The following section will go through spin-offs in more detail, including its characteristics and industries which usually choose this type of divestiture. As described in the introduction chapter, an independent company is created from a part of the parent company through a spin-off, where shares in the new firm are given to existing shareholders of the parent (Brealey et al., 2017). However, the concept of spin-offs is relatively general and covers a wide range of phenomena (Pirnay & Surlemont, 2003). Examples are corporate spin-offs and innovative spin-offs such as research-based spin-offs. Corporate spin-offs involve an action of the firm to separate a business unit from the rest, which will be the focus of this thesis. Research-based spin-offs, on the other hand, are created when a new firm or organization is created to exploit the results of research and are set up by a host scientific institution, such as a university or technical school. Essentially, their shared characteristics are that they take place in an organization and involves one or several individuals, who leave the so-called parent organization to create a new one (Pattnaik & Pandey, 2014).

Various reasons can motivate spin-offs. One typical driver is to remove divisions that are a poor fit with the rest of the company (Brealey et al., 2017). Other drivers for performing a spin-off include an improved focus on core activities, tax and regulatory reasons, corporate governance, transparency of firm performance and improved capital allocation across divisions (Daley et al., 1997; Veld & Veld-Merkoulova, 2004; Krishnaswami & Subramaniam, 1999; Ahn & Denis, 2004).

3.1.1 Characteristics of Spin-off Companies and Their Industries

Companies performing spin-offs are usually associated with cash flow constraints, high levels of information asymmetry and diversification relative to comparable firms (Chen & Guo, 2005). Furthermore, spin-offs have been particularly prevalent for firms active in industries such as financial services, real estate, energy and power, media and telecommunications as well as consumer and retail (Kengelbach et al., 2014). The strategy is suggested to be overrepresented in advanced, innovative and fragmented industries with emerging industry cycles. This is especially true when comparing with industries such as healthcare, where mergers and acquisitions dominate due to the business dynamics.

3.1.2 Effects of Spin-offs

The consequences of spin-offs have been widely documented, where various academic papers focus on its wealth effects for shareholders (Chemmanur & Yan, 2004; Veld & Veld-Merkoulova, 2009; Chai et al., 2017; Schipper & Smith, 1983). From the results, it has become evident that some general benefits, as well as issues related to spin-offs, exist.

The potential benefits of spin-offs can be divided between strategic and financial benefits (Khorana et al., 2011). The strategic benefits refer to the increased ability to invest aligned with the firm's growth objectives, without any constraints from the parent company (Khorana et al., 2011). This may implicate more favorable mergers and acquisitions. Furthermore, a spin-off creates a less complex firm with fewer divisions and increased business line transparency, leading to an opportunity for both the parent and the spun-off company to focus on its core business. As a result, the new firm may attract research coverage and new investors (Zenner et al., 2015; Khorana et al., 2011). The financial benefits refer to an opportunity to optimize capital structure and efficiently monetize assets (Khorana et al., 2011). As a standalone company, the financial and shareholder distribution policies can be designed to fit the overall growth objectives and operations, leading to efficiency improvements.

Spin-offs may also bring along undesirable consequences. A spin-off can increase the level of uncertainty and lack of clarity about prospects for both external and internal parties, resulting in a climate of ambiguity (Moschieri, 2011). Furthermore, the spin-off may create an entrepreneurial mindset that allows parties involved to recognize new opportunities, which can be associated with a sense of control and potential gains. However, new opportunities may also create a sense of anxiety (Moschieri, 2011). Moreover, combining activities through diversification may bring along risk-reduction from diversification. Thus, a motive exists for executives to not break up firms, but rather grow and create value. However, a strategic question any company needs to ask is whether a possibility exists for creating more value as a separate company (Zenner et al., 2015).

3.2 Systematic Literature Review

The following section will present the literature search of the thesis. In order to understand the relevant existing research with similar research questions, a systematic literature review (SLR) was conducted. This facilitates to obtain an overview of contributions to the field and thereby to determine potential research gaps (Baumeister & Leary, 1997). The authors found the SLR necessary at the beginning of the research process as it enables gaining insights on the research topic. Further, it uncovers connections among previous empirical findings relating to the value drivers of shareholder wealth effects following spin-offs.

The key stages in conducting a systematic review by Siddaway (2014) were applied in order to use a structured and reliable method in identifying and selecting relevant research. According to Siddaway (2014), these stages will create a systematic literature review that is characterized by being objective, systematic, transparent and replicable. The aim is to increase reliability and transparency of the collection of data as well as of the assumptions, procedures, and decisions made during the process. Below, the process of the literature search and its limitations will be presented. The outcome of the search, that is the relevant previous research, will be presented in *section 3.3*.

3.2.1 Conducting the Literature Search

Siddaway (2014) proposes various steps when performing a literature review, which is allocated to five key stages; (1) scoping, (2) planning, (3) identification, (4) screening, and (5) eligibility. As shown in table 3, the SLR of this master thesis was carried out following these.

Stage	Step	SLR for this thesis
(I) Scoping	(1) Formulate one or more research questions	The research question is presented in *section 1.3*
	(2) Clarify whether the planned systematic review has already been done	Relevant SLRs exist related to corporate spin-offs and its value drivers of wealth effects
(II) Planning	(3) Break your research question(s) down into individual concepts to create search terms	The research question was broken down into two concepts: 1. *Spin-offs* or *corporate spin-offs* 2. *Value creation* or *wealth effects*
	(4) Formulate preliminary inclusion and exclusion criteria – and then review these in the initial stages of the literature searching and sifting process	Inclusion and exclusion criteria were formulated: *Inclusion criteria;* Peer reviewed literature with full-text availability in English, focused on corporate spin-offs in relation to shareholder wealth effects *Exclusion criteria;* Duplicates, other spin-offs than corporate spin-offs and lack of in-depth research
	(5) Create clear record keeping systems and keep meticulous records by working systematically	An excel document was created where the authors stored information related to all previous reviews, including; name, online link, relevance for this thesis and summary of findings
(III) Identification	(6) Use your search terms to search at least two different electronic databases	Two different databases were used in this thesis; *CBS Libsearch* and *Business Source Complete*
	(7) Carefully inspect the search result	A careful examination of the previous reviews was done based on the earlier formulated inclusion and exclusion criteria
	(8) Conduct additional searches to ensure you have located all potentially relevant published and unpublished work	The authors conducted additional searches, e.g. from the reference sections of previous reviews
(IV) Screening	(9) Export references to a citation manager to collate the search results	A reference list was kept up to date
	(10) Read the title and/or abstract of identified work	The title and abstract of the previous reviews were read in order to determine their relevance for this thesis

(V) Eligibility	(11) Sift the full-text version of potentially eligible articles and extract relevant information to be included	All relevant previous reviews which matched the inclusion criteria were thoroughly read

Table 3. Key stages for a Systematic Literature Review according to Siddaway (2014)

(I) Scoping

An initial scope was conducted in order to understand the existence of previous research and to get an overview of the current state of academic literature. Table 4 presents the results of the search term *spin-off* based on specific criteria in CBS Libsearch and Business Source Complete. The results of the scoping indicated that the most common research subjects relating to spin-offs are within corporate business and economics with a focus on entrepreneurship and engineering. Evidently, previous research exists within the author's chosen field of study.

	CBS Libsearch	Business Source Complete
Search Term	*Spin-off*	*Spin-off*
Date of Search	February 13, 2019	February 13, 2019
Criteria	Peer-reviewed articles in English	Peer-reviewed articles in English
Results	2 541	263
Keywords	Economics (521) Business (410) Engineering (191) Entrepreneurship (156) Technology transfer (140) Innovation (127) Spin-offs (119) Management (85) Entrepreneurs (77) Commercialization (40) Academic entrepreneurship (35) Business and Management (29) Knowledge transfer (24) Social media (12)	Corporate divestiture (108) Corporate reorganizations (32) Consolidation & merger of Corporations (22) Corporate finance (18) Entrepreneurship (18) Business enterprises (17) Subsidiary corporations (15) Strategic planning (14) Tax laws (13) Stocks finance (12) Organizational performance (11) Stockholders (11) Stock prices (8)

Table 4. Search term, results, and keywords in two different databases

During the scoping of literature, several previous reviews were found relating to the research question of the thesis, i.e. value drivers of wealth effects for shareholders following a spin-off.

The authors also found several papers with SLRs of adequate quality, which address the same research question. However, the authors noted that the existing SLRs were relatively old and therefore concluded that an updated literature review was necessary.

(II) Planning

In the next stage, the authors broke down the research question into two concepts;

1. *Spin-offs* or *corporate spin-offs*
2. *Value creation* or *wealth effects*

The authors used these concepts intending to find the relevant literature. However, a range of terms can be used when describing the same phenomenon or research area. Thus, relevant synonyms and broader as well as narrower search terms were used as well. More specifically, the authors used the following search terms; *spin-offs* OR *corporate spin-offs* OR *divestitures*, AND *value creation* OR *wealth effects* OR *stock performance* OR *shareholder value*. The literature included is peer-reviewed papers in English with full-text availability focused on corporate spin-offs in relation to its effects. The excluded literature consisted of any duplicates, less in-depth literature, and other spin-offs than corporate spin-offs. All relevant literature that met the inclusion criteria were stored in an excel document where the authors kept names, online links, a short description of the relevance of the paper for this thesis, as well as a summary of the findings.

(III) Identification

In order to increase the chance of finding the vast majority of published work relating to the research question, the authors used two different electronic databases; CBS Libsearch and Business Source Complete. CBS Libsearch consists of more than 100 global academic databases, while Business Source Complete is a scholarly database that covers 14 databases related to business fields. The authors carefully inspected the search results based on the earlier formulated inclusion and exclusion criteria and chose to emphasize recent previous reviews with high quality. The authors believed that the search results from the inclusion and exclusion criteria were reliable and effective in identifying potentially relevant articles. Moreover, the authors conducted additional searches based on the reference sections of the previous reviews, which provided additional relevant academic articles related to the research question.

(IV) Screening

The references were exported to a citation manager, which increased efficiency when managing the bibliography of the thesis. The search generated 46 in CBS Libsearch and 43 results in Business Source Complete. The title and abstract were read for all 89 articles in order to determine their relevance for this thesis, where 34 of the articles passed the screening test.

(V) Eligibility

The 34 articles which passed the screening test were fully read to carefully decide if potentially eligible studies were indeed relevant and appropriate to include. In total, 16 articles passed the eligibility test and are presented in the outcome of the literature search in *section 3.3*. A list of the articles, together with their applicability to the research question, is found in Appendix 11.

3.2.2 Limitations of Literature Search

The key stages by Siddaway (2014) were used for conducting a systematic review to increase the reliability and transparency of the collection of data. Moreover, it facilitates an understanding of the authors' assumptions, procedures, and decisions made during the process. The conduction of the literature search was structured with a dynamic record keeping when identifying and selecting relevant research. However, the process has its limitations. Firstly, synonyms and broader as well as narrower search terms were used, which were related to the research question. There is a risk of the chosen search terms not being able to capture all relevant literature in the databases. Secondly, the inclusion and exclusion criteria enabled the authors to filter out all relevant literature for the thesis. However, the exclusion criteria relating to disregarding less in-depth literature may run the risk of being subjective and further remove relevant literature. Lastly, the authors used two different electronic databases to increase the chances of finding most of the published work related to the research question. However, the authors could have used additional databases to create an even more comprehensive literature review. On the other hand, due to the vast amount of time an SLR takes and the time constraint to conduct the search of the thesis, the authors chose to use the two databases for the literature search, as the search still provided plentiful of relevant literature.

3.3 Factors Explaining Spin-off Wealth Effects for Shareholders

After conducting the literature search, the authors understood that a relatively large body of research exists for documenting empirical evidence of factors explaining wealth effects for shareholders following a spin-off. Most of the reviews investigate such effects from a quantitative perspective, yielding consistently positive effects on shareholder wealth through various reasons. The following section will present the relevant literature which passed the eligibility test in the literature search. In the literature search, the authors learned that the most commonly mentioned value drivers for wealth effects are reduced information asymmetry, improved capital allocation, and increased corporate focus, which will therefore be the focus of the thesis. These are analyzed using the theoretical framework presented in *chapter 5*.

3.3.1 Reduced Information Asymmetry

The level of information asymmetry may be a strong motive for firms to perform a spin-off (Chai et al., 2017). The reason is that firms become smaller and less complex following a spin-off. As a result, potential improvements can occur regarding the ability to understand the individual performance and firm value of the subsidiary (Krishnaswami & Subramaniam, 1999). Furthermore, research indicates that reduced information asymmetry may lead to better managerial incentives. Previous research focusing on these two aspects in relation to the wealth effects of spin-offs is presented below.

Firm Valuation

The reduced information asymmetry following a spin-off may lead to an increased ability to more accurately value the firm and thereby eliminate an eventual conglomerate discount (Habib et al., 1997; Krishnaswami & Subramaniam, 1999). Thus, the wealth effects could potentially be traced to a better firm valuation subsequent the spin-off event, since a diversified firm is often valued lower relative to the sum of the standalone values of all business units (Berger & Ofek, 1995). The potential conglomerate discount can be due to various reasons, where examples include lack of transparency or confusion among analysts and investors (Khorana et al., 2011).

Habib et al. (1997) are among the first to suggest that a spin-off can lead to a decrease in information asymmetry and thereby improved firm valuation. They argue that the spin-off will lead to an increase in the number of securities traded on the market, creating a more informative price system. Consequently, the improved availability of information will lead to an increase in the total value of the firm, and thus, wealth effects for shareholders. A potential undervaluation can therefore be explored and corrected, generating higher share value and positive wealth effects for shareholders (Habib et al., 1997). Similar to Habib et al. (1997), Krishnaswami and

Subramaniam (1999) investigate the relation between spin-offs and information asymmetry. The authors are the first to test whether firms may perform a spin-off as a mean to decrease the level of information asymmetry between managers and the external capital market. They find that the accuracy of valuation is improved significantly subsequent to spin-offs, due to lower information asymmetry.

In contrast, Veld and Veld-Merkoulova (2004) find a higher correlation between low information asymmetry and abnormal returns than for high information asymmetry. Additionally, a later study by the same authors does not find any significance in information asymmetry explaining the wealth effects of spin-offs (Veld & Veld-Merkoulova, 2009). Aligned with this result, Sudarsanam and Qian (2007) do not find any significance for the information asymmetry variable in the European market. These contradictions question if reduced information asymmetry is a factor that can explain the shareholder wealth effects following spin-offs.

Managerial Incentives

The reduced information asymmetry following a spin-off can have a positive impact on managerial incentives and efficiency, which could lead to increased wealth effects for shareholders (Aron, 1991; Comment & Jarrell, 1995; Daley et al., 1997).

Comment and Jarrell (1995) suggest that firm performance and firm value are positively affected by managerial efficiency following a spin-off. The underlying explanation is that a spin-off is a way to enhance such improvements as the interest between the firm's managers and its shareholders are improved and aligned. Moreover, Aron (1991) finds that spin-offs lead to more effectively incentivized managers. She argues that the share price is a noisy signal of managers' productivity in large and multi-product firms. Less information asymmetry post-spin-offs make it more likely that the subsidiary becomes a pure-play firm and creates the ability to have managerial compensation based on its stock. Consequently, spin-offs lead to higher productivity and efficiency, and thus, potentially positive wealth effects for firms' shareholders. Daley et al. (1997) agrees with this and suggest that the newly created standalone company allows for more effective incentive plans for the managers, which might not be possible or feasible when the firm is a part of a larger group. The improvement of available information and managerial incentive plans could, in turn, improve the performance of the spun-off company's assets, and thereby increase firm value and wealth effects.

In opposition to the above findings, Seward and Walsh (1996) suggest no statistically significant relationship between the gains around spin-offs and improvements in efficiency for management. Thus, the results from previous research are conflicting, questioning whether spin-offs have a positive impact on managerial efficiency.

3.3.2 Improved Capital Allocation

Previous research also put forth improved internal capital allocation as an explanation of the gains associated with spin-offs (Ahn & Denis, 2004; Berger & Ofek, 1995; Burch & Nanda, 2003; McNeil & Moore, 2005; Rajan et al., 2000; Scharfstein & Stein, 2000). Misallocation of capital between divisions can arise from bargaining between corporate headquarters and divisional managers (Ahn & Denis, 2004). In a large well-diversified firm, the high diversity in resources and opportunities can lead to a flow of resources from more efficient and growing divisions to less efficient divisions with fewer growth opportunities. As a result, the inefficient allocation of capital can lead to a decrease in firm value. Less diversified firms have a clearer view of individual opportunities across the firm, which may foster improved governance. Spin-offs can therefore be seen as a mean to reduce the diversity of resources as well as their opportunities and thereby potentially directing them towards more efficient use.

Ahn and Denis (2004) provide evidence that the inefficient allocation of internal capital exists before spin-offs and that this is improved post-spin-offs. The authors find that the inefficient capital allocation strategies lead to an undervaluation of the parent firm and the spun-off unit. However, the improved capital allocation post-spin-offs lead to a more accurate valuation, and thus, create value. Similarly, Burch and Nanda (2003) find an increase in efficiency of capital allocation post-spin-off as well as improved firm value. The authors find that the increase in firm value is positively related to the enhancement of capital allocation efficiency. Aligned with this is the results of Rajan et al. (2000), Scharfstein and Stein (2000), and Berger and Ofek (1995), whom all argue that diversified firms misallocate internal capital across divisions, since poorly performing divisions expropriate capital from other divisions. They find that efficient capital allocation decreases as the diversity of opportunities among divisions increases and that a larger diversity may lead to lower firm value. Ultimately, the more diversified firms are, the less efficient internal capital market and lower firm value, which may be corrected through a spin-off.

As a complement to the above arguments, McNeil and Moore (2005) find that firms identified as inefficient before the spin-off appear to be allocating internal capital in a more efficient way post-spin-off. Consistent with earlier mentioned research, they show that firm value increases following spin-offs due to improved capital allocation. However, the authors also find that firms that are identified as efficient in allocating internal capital prior spin-offs become less efficient post-spin-offs. This questions how and when improved capital allocation is a factor that can explain the wealth effects of spin-offs.

3.3.3 Increased Corporate Focus

Another frequently mentioned factor explaining wealth effects from spin-offs is an increase in corporate focus. Corporate focus can be defined as a reduction in the number of segments a firm report and focusing on its core business (Berger & Ofek, 1995; Daley et al., 1997; Desai & Jain, 1999). As a standalone company, the spun-off firm may run the risk of losing potential synergy effects with the parent company. However, too diversified firms can instead lead to a decrease in performance as the need to cross-subsidize poorly performing units increase (Berger & Ofek, 1995). A spin-off is a way to reduce such issues and remove negative synergies by separating operations unrelated to the core business. Extensive research investigates if corporate focus can explain spin-off gains, where the most relevant studies are presented below.

Berger and Ofek (1995) argue that diversification destroys firm value, where this effect is mainly traceable to negative synergies between the parent firm and the business unit. The negative synergies often occur when the two parties operate across industries, which creates a risk of diluted attention of managers. Spin-offs are a way to eliminate such inefficiencies by separating unrelated business lines. Similarly, Daley et al. (1997) find that in the case of a focus-increasing spin-off, that is if the parent and the spun-off company operate across industries, the spin-off will lead to significant positive stock returns and increase in operating performance for both the parent and the subsidiary. An explanation put forth include the unfit of managerial skills in managing non-core assets. Managers may be more suited to manage core business activities in which the company has a competitive advantage. Consequently, freeing managers from non-core business activities should improve corporate performance and contribute to shareholder wealth effects. Lastly, Desai and Jain (1999) complement Daley et al. (1997) by providing evidence that focus-increasing spin-offs lead to higher long-run abnormal returns than non-focus-increasing spin-offs, indicating the potential importance of corporate focus.

In contrast to the above arguments, Veld and Veld-Merkoulova (2004) find no significant relationship between stock outperformance and focus-increasing spin-offs in the European market. Therefore, the results can be seen as inconsistent, which raises the question if the shareholder wealth effects following spin-offs can be explained by a higher degree of corporate focus.

3.3.4 Other Factors

In addition to the factors explained above, other factors may also explain the wealth effects for shareholders after spin-offs. These factors are not investigated in this thesis, as the authors aim to analyze the most commonly used factors in relevant previous research. However, the other factors will be discussed to some extent in *chapter 7*.

3.3.4.1 Investor Attitude

A possible explanation for the wealth effects following spin-offs can be changes in investors' attitudes and appetites over time (Sudarsanam & Qian, 2007). Previous research suggests that investors' demand may be more significant for pure-play companies than diversified companies in certain periods, and vice versa. As stocks with high demand often become overvalued, there is an incentive for managers to spin-off the unrelated business or subsidiary when the demand for corporate focus is higher than diversity. Such spin-offs will experience larger shareholder wealth effects in the short-term than other types of spin-offs. Thus, stock market reaction to spin-offs and corporate restructuring are affected by not only fundamental value drivers, but also investor sentiments (Sudarsanam & Qian, 2007).

3.3.4.2 Tax and Regulations

Another motive for performing a spin-off includes taxes and regulations. According to Schipper and Smith (1983) and Copeland et al. (1987), companies may consider a spin-off as a mean to optimize the company's tax structure and regulatory constraints. However, Schipper and Smith (1983) also conclude that this motive may not be a factor that fully explains the wealth effects for shareholders from spin-offs. Furthermore, Krishnaswami & Subramaniam (1999) investigate the wealth effects in the U.S. from taxable and non-taxable spin-offs as well as regulatory status for spin-offs. The authors find that taxable spin-offs lead to lower abnormal returns compared to non-taxable spin-offs.

Unlike spin-offs in the U.S., Veld and Veld-Merkoulova (2004) argue that spin-offs in Europe are not generally motivated by tax issues, as an option exists to defer tax payments. The authors also claim that regulations are no motives for companies to perform a spin-off. Therefore, no general result can be made from previous literature regarding the effects of tax and regulations on shareholder wealth effects.

3.3.4.3 Takeover Activity

Previous research argues that the shareholder wealth effects are a result of an increased likelihood that the new company will be acquired post-spin-off. Chemmanur and Yan (2004) mean that the source of the gains following a spin-off arises from disciplining effects on firm management since the spin-off increases the probability of loss of control for the management through a takeover. The risk motivates management to work harder as an attempt to minimize the probability of losing control, leading to an increase in efficiency and stock performance. Such effects may be true even in the absence of an actual takeover. If a takeover does occur subsequent to the spin-off, there is also a chance of improved firm performance, as the new management team might have better abilities (Chemmanur & Yan, 2004).

3.4 Summary of Literature Review

The literature review has introduced a more detailed description of corporate spin-offs as well as the literature search process of the thesis done through a Systematic Literature Review (SLR). Furthermore, previous research relevant to the research question has been introduced. This section summarizes the findings of these.

This thesis investigates the underlying value drivers that might explain the possible shareholder wealth effects following the spin-off of a company active in the medical device industry. Most of the previous research investigates shareholder wealth effects from a quantitative perspective, yielding consistently positive effects on shareholder wealth through various reasons. According to research, there are various value-creating factors, such as investor attitude, tax and regulations, and takeover activity. However, from the literature search, it became evident that the most common value-creating factors are reduced information asymmetry for the firm's stakeholders, improved capital allocation processes and increased corporate focus on products with a competitive advantage.

Regarding reduced information asymmetry, research means that spin-offs create smaller and less complex firms, which leads to improved ability to value the firm accurately. This may eliminate a potential conglomerate discount. The reduced information asymmetry may also lead to better managerial incentives and improve management efficiency. Previous research has also put forth improved capital allocation as an explanation of the gains associated with spin-offs. Spin-offs create a clearer view of divisions' opportunities where resources are allocated accordingly, leading to an increase in firm value. Finally, the shareholder wealth effects can also be explained by increased corporate focus, meaning a reduction in the number of segments firms report and focusing on its core business. Research means that too diversified firms result in an unfit among managers in managing non-core assets and that a spin-off removes such negative synergies.

4 Case Company

The following chapter will describe the case company of the thesis, namely Arjo. Firstly, the chapter will briefly present the history and industry of the firm. After that, a significant focus will be on the spin-off of Arjo from Getinge and its effects.

4.1 Case Company Description

In 1957, the entrepreneur Arne Johansson founded Arjo in Eslöv in Sweden. The firm started by manufacturing components and machine parts, such as various medical devices, for other manufacturers. Since then, the firm has evolved into a global player in the acute and long-term care sector, with head office in Malmö. Today, the firm has nearly 6,000 employees worldwide and sales across more than 100 countries. The product offering ranges from products and services for patient handling, hygiene, disinfection, medical beds and therapeutic surfaces to venous thromboembolism (VTE) prevention and diagnostics. Main customers are public and private institutions within the acute care and long-term care sectors, such as hospitals and elderly care facilities. (Arjo, 2018)

Arjo's history has generally been denoted by acquisitions which have allowed the firm to gain access to new markets and strengthen its current market position (Arjo, 2018). Arjo's history of its expansion, including previously made acquisitions, is visualized in figure 6.

Arjo was acquired by the global medical technology leader Getinge in 1995. The acquisition was a strategic decision for Getinge to build up the patient and post-acute care business, which addresses elderly care and patients no longer in need of acute hospital care. Arjo's product segments of hygiene systems, patient handling, and disinfection equipment complemented Getinge's product offerings. The efficiency of Getinge's manufacturing structure and distribution system would increase after the acquisition, leading to expansion possibilities and cost cuttings as well as new penetrations of the healthcare sector. (Getinge, 1996)

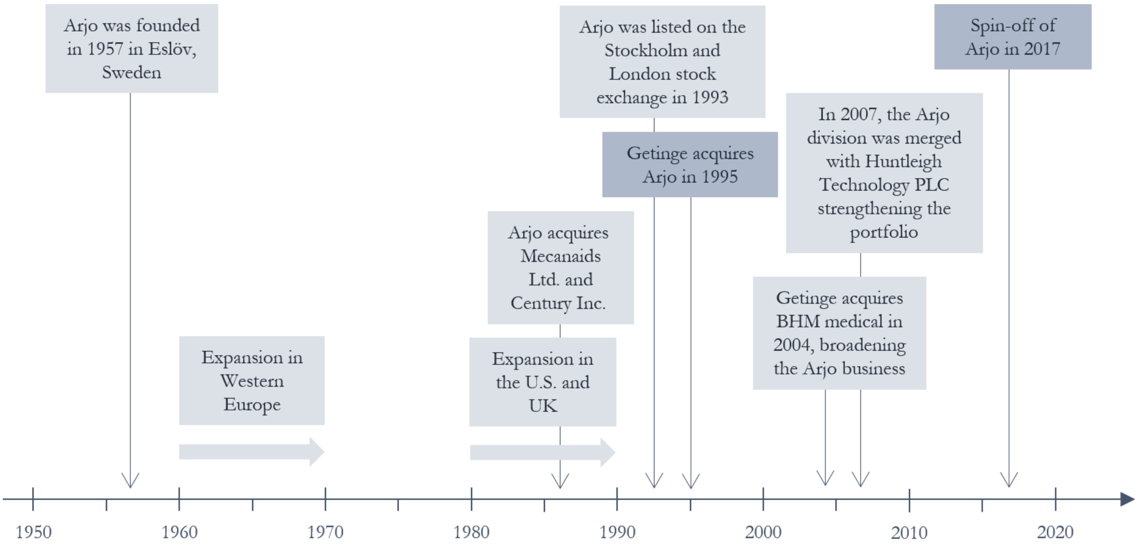

Figure 6. Arjo's History
Source: Arjo (2018), own illustration

As a part of the Getinge group, Arjo represented the Patient & Post-Acute Care business area. Going forward, Getinge would expand into multiple businesses (Getinge, n.d.). The diversification resulted in issues for the Arjo division, due to differences in its product portfolio from the rest of the group as well as less focus on the unit's business in terms of economic support (Lindoff, 2019).

Up until 2015, the Getinge group consisted of various distinct divisions, where the president for each division ran it as a standalone firm with a separate income statement and balance sheet. In 2015, the Getinge management team decided to form a matrix organization under the name of *One Getinge*. This resulted in three broad business areas within the group; Acute Care Therapies, Infection control & Surgical Workflows, and Patient & Post-Acute Care. The matrix organization implied a quick and effective merge of many divisions in order to form the three business areas. Moreover, the creation of joint support functions implied an abundance of employees in occupations within sales, marketing, and development departments. Following this, disorder emerged within the organization, where the focus on Arjo further decreased. (Lindoff, 2019)

Thus, on October 18, 2016, the Getinge Board of Directors announced its intentions to spin-off Arjo. Accordingly, Arjo was listed on Nasdaq Stockholm on December 12, 2017, and included in the Nasdaq Nordic Large Cap segment (Mannheimer Swartling Advokatbyrå, 2017; Arjo, 2019) The spin-off will be discussed in further detail in *section 4.2*.

4.1.1 The Medical Device Industry

Arjo operates in the medical device industry. The European Union defines medical devices very broadly as *"any instrument, apparatus, appliance, software, material or other article, whether used alone or in combination, including the software intended by its manufacturer to be used specifically for diagnostic and/or therapeutic purposes and necessary for its proper application, intended by the manufacturer to be used for human beings"* (European Commission, 1993, p.5). In 2016, the global medical device market amounted to approximately SEK 3,145 billion (Arjo, 2018). The market is considered to have stable and long-term growth, expected to reach nearly SEK 5,550 billion (USD 595 billion) by 2024 (Evaluate, 2018).

The market is generally characterized by a high degree of competition. On the one hand, there is a small number of large, global players with a presence in many geographies and a wide range of product offerings. On the other hand, there is a large number of local and regional players, with more limited product segments. Furthermore, the entry barriers are relatively high due to significant investments, strict product safety requirements and necessary local knowledge in combination with global networks. The negotiation position of suppliers is restricted as there are many suppliers of the raw material and component products, which are relatively standardized. (Arjo, 2018)

After the financial crisis in 2008, the medical device industry consolidated further, resulting in even larger companies and more centralized purchasing departments. However, consolidations within the medical device industry have recently started to be less common (Evaluate, 2018). Lately, market players have raised on the market with low cost as their primary competitive tool (Arjo, 2018).

The medical device industry is exposed to high safety requirements, including regulatory approvals and medical device authorizations. The U.S. Food and Drug Administration (FDA) approves products and medical procedures while also monitoring reports of problems with medical devices (FDA, n.d.). The European Union has a similar drug regulatory system, namely the European Medicines Agency (EMA), also approving medical devices (Gollaher & Goodall, 2011). Firms within the industry are dependent on these types of product approvals, where a denied product can have severe consequences. Additionally, the purchase processes of medical devices by governmentally funded healthcare providers, are procured via public tendering processes (Blixt et al., 2015). The tender processes are common due to their effectiveness in creating clear oversight of requirements and the purchasing process of products (Graves, 2011). However, the structure of some tendering systems entails that firms need to fulfill all product requirements in the tender, meaning that such tenders would not be secured for firms which do not meet the requirements. Thus, such a system concentrates tendering contracts to a few companies, implying a significant loss in sales for the excluded firms.

4.1.1.1 Shareholder Wealth Effects in the Medical Device Industry

From a shareholder perspective, the medical device industry has performed well in recent years, yielding a total return to shareholders (TRS) of 18 percent per year, compared to 15 percent for the S&P500 between 2011 and 2016 (Copp et al., 2017). The stable growth expectations in the market are about six percent per year, which is considerably higher than the overall annual market growth of two percent (Evaluate, 2018). The market growth is primarily driven by demographic factors, such as an aging population and higher incidence of chronic diseases. The economic growth of emerging markets is also facilitating the development of advanced healthcare (Arjo, 2018). For medical device firms, growth is the key to value creation. To increase shareholder value in this industry, an increase in the share of sales in fast-growing and innovative market segments is more potent than capturing market share from competitors (Copp et al., 2017).

4.1.1.2 Arjo's Market Position

Today, Arjo accounts for approximately SEK 65 billion, corresponding to two percent of the global medical device market (Arjo, 2018). Consequently, Arjo is one of the foremost players, holding leading positions in several of the group's product categories. Relative to other MedTech companies, Arjo's product base is less technologically advanced, and the innovation component is much higher for its peers (Lykke, 2019). Of the market which Arjo addresses, North America accounts for 34 percent (SEK 22 billion), Western Europe 31 percent (SEK 20 billion), and the rest of the world 35 percent (SEK 23 billion) (Arjo, 2019), which figure 7 visualizes.

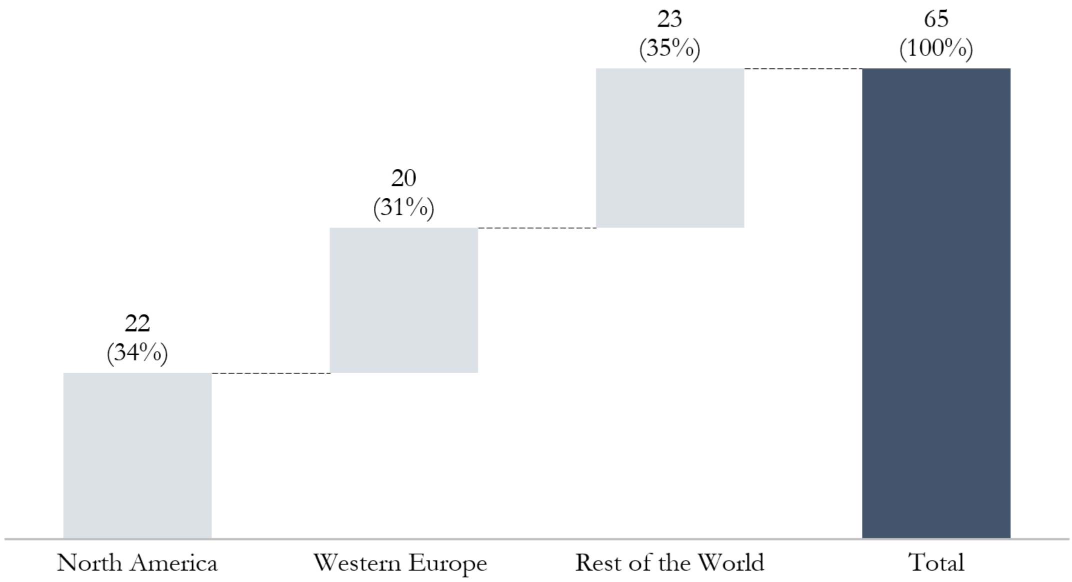

Figure 7. Net Sales per Geographical Area in SEK billion
Source: Arjo (2019)

4.2 The Spin-off of Arjo

The following section describes the spin-off of Arjo. The section includes a presentation of the motivation of the spin-off decision, its process, and its effects on shareholder wealth.

4.2.1 Motivation of the Spin-off

In the years before the spin-off, Getinge became further focused on the acute care sector, leading to additional organic and in-organic activities within this product segment. The focus resulted in growth issues for the Arjo division since it was not aligned with their higher concentration on long-term care. Furthermore, the implementation of One Getinge in 2015 meant further issues for Arjo, as its division did not receive adequate attention. When Joacim Lindoff took over as Acting President and CEO in Getinge in August 2016, the attention from the board of directors increased towards finding a better solution for Arjo. The Arjo division within the Getinge group was not a sustainable option. To put Arjo in the right direction and get the focus back into the Arjo organization, it had to be a standalone firm. Typically, a spin-off is led by the sending company, while the to-be spun-off firm is the respondent. In the case of the Arjo spin-off, it was the opposite, where Arjo as the spun-off company was driving the decision. (Lindoff, 2019)

4.2.2 The Spin-off Process

Figure 8 presents the main events during the spin-off period. On December 12, 2017, Arjo shares were distributed to shareholders of Getinge and Arjo series B shares were listed on Nasdaq Stockholm (Mannheimer Swartling Advokatbyrå, 2017). Thus, Getinge Group became two independent and listed companies. One Class A share in Getinge entitled one Class A share in Arjo, and one Class B share in Getinge entitled one Class B share in Arjo (Getinge, 2018). Since then, Arjo has continued with its former Patient & Post-Acute Care business area, while Getinge has continued with the remaining business areas (Mannheimer Swartling Advokatbyrå, 2017). Approximately one-fourth of Getinge's sales and assets, as well as one-fifth of EBIT and operating cash flow, followed Arjo after the spin-off (Getinge, 2017b). Getinge took the stranded costs from the spin-off, meaning that Arjo could start as a lean and clear operating model without any redundant overhead costs (Sjöswärd, 2019).

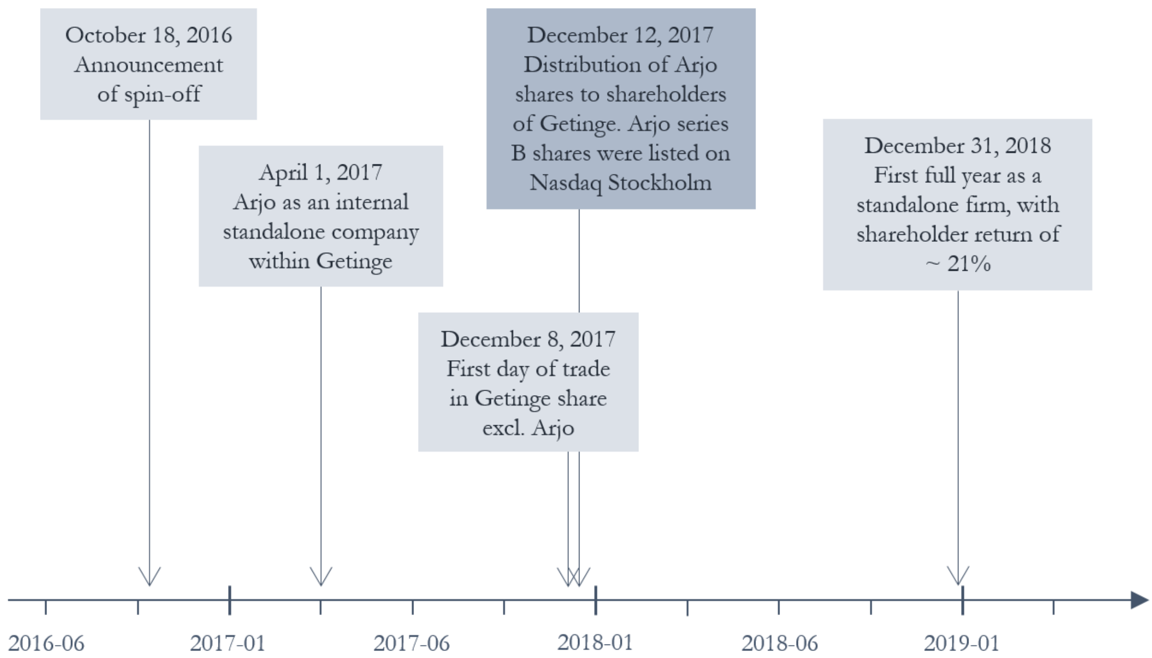

Figure 8. Main Events of the Spin-off
Source: Getinge (2017b) and Arjo (2019), own illustration

The period between the announcement and the day of the listing included an operational carve out, and thus, making sure that Arjo as a standalone firm would not be reliant on Getinge by the time of the spin-off. The process meant assessing all dependencies into approximately 4,000 transitional service agreements (TSA). The TSAs were formalized contracts regarding how all dependencies between Arjo and Getinge were to be sorted out before the spin-off. An example of a dependency was if an office lease contract should stay with Getinge or accrue to Arjo. By cancelling out the TSA's, Arjo was able to build its own capabilities. By the time of the listing, all TSAs were resolved except for a few contracts relating to big risk IT and shared service centers. (Stentoft, 2019)

4.2.3 Financial Performance

At the point of the spin-off, the Arjo-division had shown declining growth for six years, while the other divisions within the Getinge group had grown (Lindoff, 2019). This resulted in issues on an aggregated group level, where the outcome of growth in sales, EBITDA and return on equity (ROI) were all below their respective growth targets of the firm (Getinge, 2017a). Furthermore, the EBIT contribution to the group had been declining for four years, and Arjo was not performing well (Stentoft, 2019). The Arjo-division represented approximately 25 percent of the group's total net sales, meaning that the division was the smallest one in terms of revenue as well as gross profit contribution (Stentoft, 2019; Getinge, 2017a).

The year after the listing, Arjo had four quarters of positive growth, which had not happened in 15 years (Stentoft, 2019). Arjo aims for organic growth of two to four percent, a reported EBITDA growth of 10 percent and a cash conversion of over 70 percent annually (Lindoff, 2019). During 2018, the net sales increased from SEK 7,688 million to SEK 8,217 million (6,9 percent), and the EBITDA increased from SEK 996 million to SEK 1,180 million (18,4 percent) (Arjo, 2019). The cash flow from operation increased from SEK 572 million to SEK 991 million (73,3 percent), yielding a cash conversion of approximately 84 percent. Figure 9 visualizes the changes. Moreover, the organic growth throughout the year was two percent, and thus, the firm reached all of the above-stated growth targets set up by the firm's management.

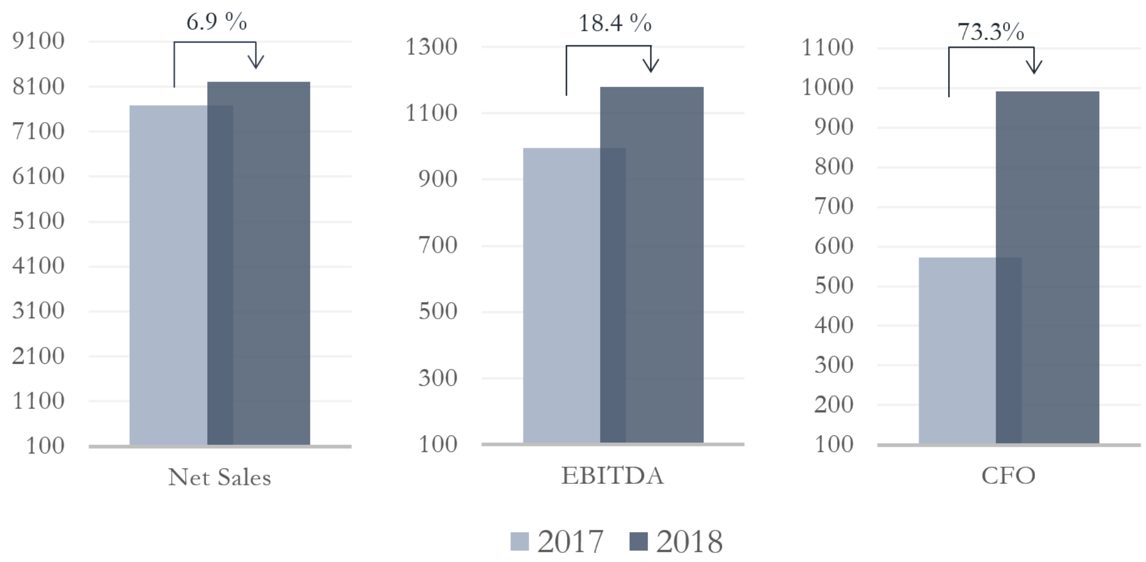

Figure 9. Arjo's Performance Development in 2018
Source: Arjo (2019)

4.2.4 Share Performance Post-spin-off

The Arjo share has been a strong performer since the spin-off (Gibson, 2019; Stentoft, 2019; Lindoff, 2019). The share price has increased close to 40 percent, and thus, outperformed comparable companies in the medical device industry by 2,5-3 times (Stentoft, 2019). During 2018, which was the firm's first year as a listed company, the value of the Arjo share increased by 21 percent (Arjo, 2019).

Since the spin-off, Getinge has experienced a negative share development due to various reasons not connected to the spin-off itself. Examples are issues in the quality management system and product approvals by the FDA, further discussed in the methodology chapter under *section 2.3.1*. Figure 10 shows the stock performance of Arjo, Getinge, SX4530GI (OMX Stockholm Health Care Equipment & Services) and OMX Stockholm PI (OMXSPI), where the latter is the index used in Arjo's annual report to validate the strong performance of the share (Arjo, 2019). The data is normalized and adjusted to include dividends and splits, enabling comparison between the various components. As can be seen, Arjo's shareholders have experienced a higher return than those of the others between the period of 12-12-2017 and 30-04-2019.

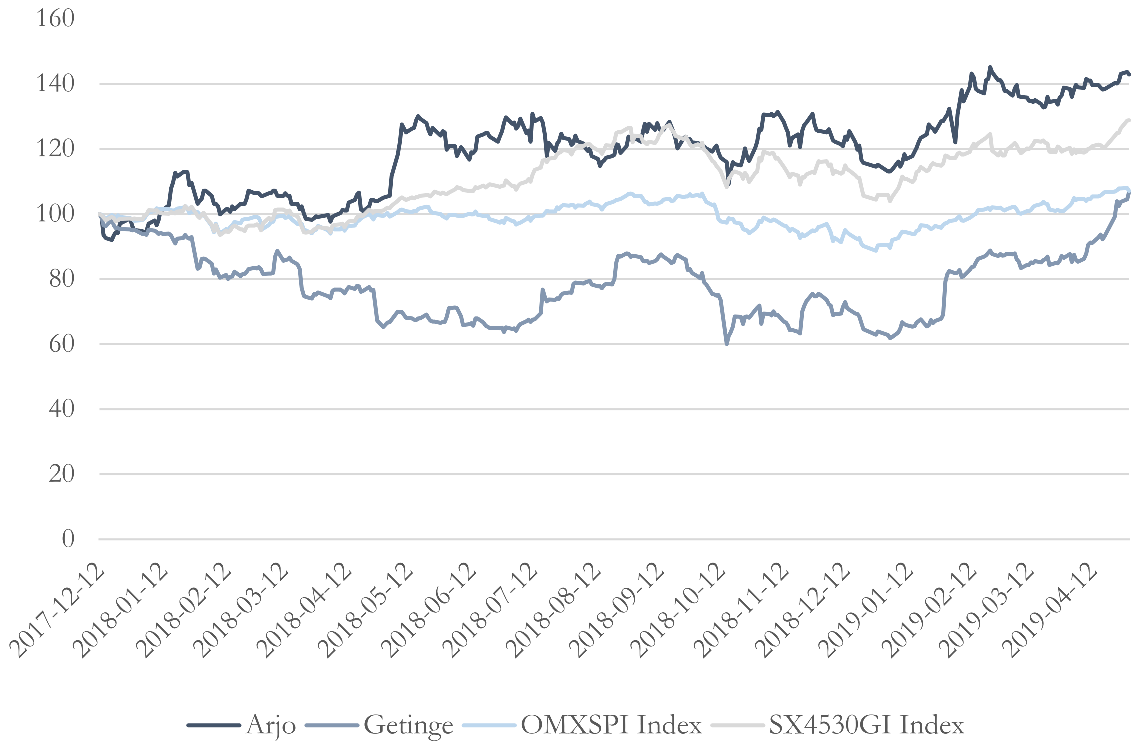

Figure 10. Market Development of Arjo, Getinge, SX4530GI and OMXSPI
Source: Bloomberg

5 Theoretical Framework

This thesis includes three theoretical standpoints in the analysis of the underlying value drivers of the spin-off wealth effects, namely Agency theory, Transaction cost theory, and Resource-based view. The following chapter will first present the motivation behind the selected theoretical perspective. Thereafter, a presentation of the three theories will be covered, including its critique and relation to spin-offs. Finally, the chapter will present a summary of the chosen theories.

5.1 Motivation of Theoretical Perspective

The authors of this thesis developed a theoretical framework in order to frame the case study, where the research question and previous literature related to spin-off wealth effects have been the guide during this process. Figure 11 visualizes the theoretical framework.

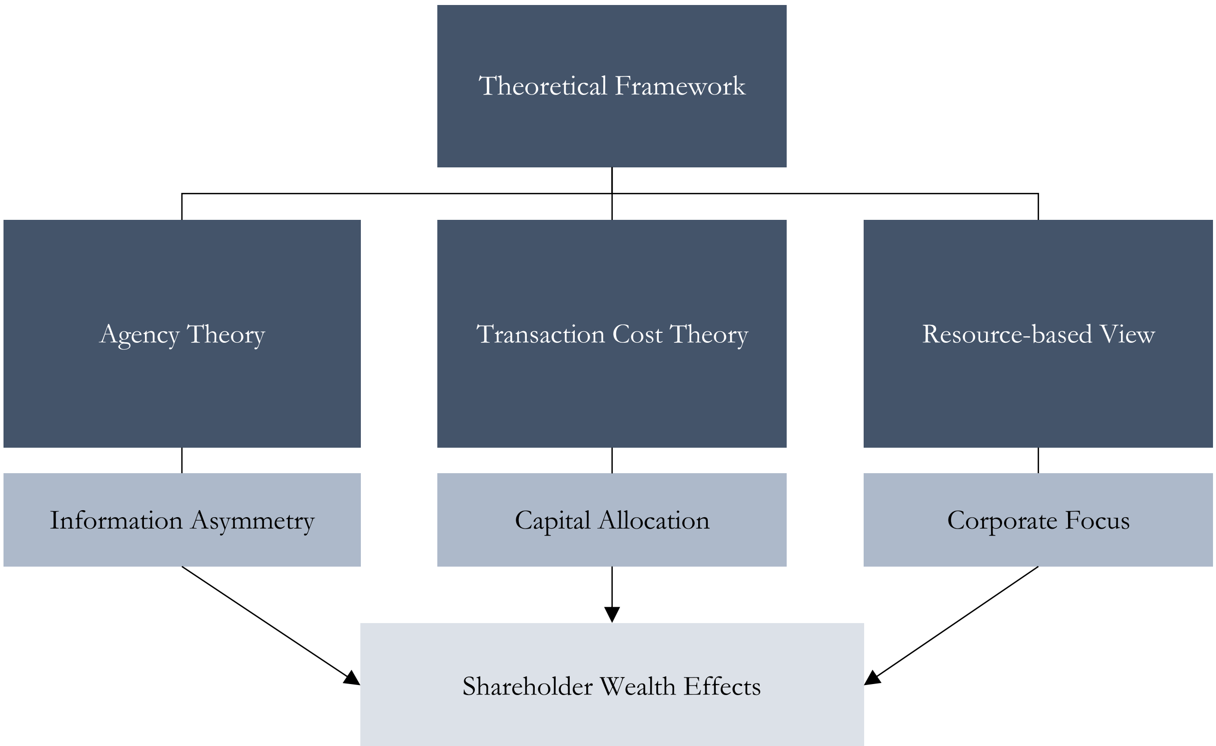

Figure 11. Overview of Theoretical Framework
Source: Own illustration

Agency theory, transaction cost theory, and the resource-based view are widely used in portraying the linkages between spin-offs and value creation (Bergh, 2017; Semadeni, 2004). For this reason, the authors found the theories academically established and therefore chose to adopt the theories in this thesis. The motivation for each theory will be presented below.

Firstly, the agency theory enables an understanding of the value creation following spin-offs, as it explains the realignment of interests between managers and owners through less information asymmetry (Bergh, 2017). Also, as information asymmetry is a central concept within the theory, it will be used when analyzing the potential wealth effects from a change in information asymmetry following the spin-off of Arjo.

Secondly, the transaction cost theory is relevant as it can provide important reasoning for spin-offs. Examples include optimizing and restoring of internal efficiency due to a reduction in transaction costs, leading to increased firm performance (Bergh, 2017). The changes in capital allocation after the spin-off of Arjo will be analyzed by using the transaction cost theory, as lower transaction costs from potential efficiency improvements in capital allocation can increase firm value and share price.

Finally, the resource-based view is applicable when portraying linkages between spin-offs and value creation (Bergh, 2017). The theory is appropriate when suggesting that spin-offs create value through exploiting firm resources in order to increase various economic benefits and maximize firm prospects. As an increase in corporate focus can have positive effects on economic benefits, such as competitive advantages, the theory will be used when analyzing the effects of corporate focus on the positive development of the Arjo share since the spin-off.

The remaining part of this chapter presents the three theories in more detail, including researchers' critique of the theories as well as how each theory applies in a spin-off setting.

5.2 Agency Theory

The agency theory, also known as principal-agency theory, is considered as one of the oldest and most important theories in the literature of finance, economics and management (Daily et al., 2003; Wasserman, 2006). The theory highlights the conflict that arises when the firm's ownership is separated from its governance and control (Jensen & Meckling, 1976). It is often used to help firms implement various governance mechanisms. The theory illustrates a relationship defined as a contract between two parties, where one party (the agent) is employed by another party (the principal) to perform tasks in the principal's interest (Jensen & Meckling, 1976). In many situations, the agent is defined as the management of a firm, whereas the principal is the firm's shareholders.

The conflict which the theory highlights arises due to conflict of interests when the two parties act to maximize their own self-interest and benefits (Jensen & Meckling, 1976). The differing in interest is centered on the misalignment of incentives between the two parties, leading to contradictions in risk preferences. If a firm manages to overcome these conflicts by aligning incentives, information asymmetry will decrease, leading to lower agency problems and agency costs (Semadeni & Cannella, 2011). This may lead to improved firm performance. The concepts of information asymmetry, agency problems, and agency costs will be described below.

Information Asymmetry

Information asymmetry is a central concept in the agency theory and can be defined as the difference in information available between the two parties (Brealey et al., 2017). Firm managers will usually have access to information about the firm's prospects, risks, and values which may not be available to outside investors and stakeholders. The information may not reach the owners of the firms in the same manner as for managers since the owners are dependent upon the managers to receive the information (Panda & Leepsa, 2017). This can create issues when managers are more optimistic than investors.

A way to overcome this asymmetry is for the party with information advantage to send signals to the less informed party. Such signals can improve the understanding of the information available and help interpret the information accurately (Spence, 1973). Examples include signals related to the choice of managerial incentive schemes. The chosen incentive scheme should be designed to ensure transparency and alignment of long-term interests between the executive managers and the investors.

Agency Problems

Another central concept within the agency theory is agency problems, which refers to the conflict that arises when the management of a firm attempts to maximize their personal utility at the expense of the shareholders (Jensen & Meckling, 1976). Examples of such include short-term involvement among managers, differences in risk attitudes, managerial actions focused on growth maximization and diversification into various businesses (Panda & Leepsa, 2017). As the compensation of management together with their feeling of prestige and power positively correlate to firm size, managers prefer to maximize this even if an increase in firm size is not aligned with the interests of the shareholders. This may result in firm performance deteriorated, and thereby hurt the shareholders (Lee et al., 2013). However, remedies for agency problems exist, such as managerial ownership, a board of directors and executive compensation based on firm performance (Panda & Leepsa, 2017).

Agency Costs

The agency theory has also brought forward the concept of agency costs, which arise from agency problems (Jensen & Meckling, 1976). Agency costs are the internal costs attached to the agents following the misalignment of interest and information asymmetry. The costs are a consequence of managing the principal-agent relationship and resolving differing priorities, such as monitoring and assessing the performance of the agent and making sure that the agent's actions are in the best interest of the shareholders (Jensen & Meckling, 1976). Thus, when agency problems decrease, the agency costs decrease as well.

5.2.1 Criticism

Despite the extensive usage and importance of the agency theory, the theory has been criticized on various grounds (Wiseman & Gomez-Mejia, 1998; Anthony & Govindarajan, 2007; Key, 1999).

Wiseman and Gomez-Mejia (1998) argue that the agency theory only emphasizes the principal-agent conflict, agency costs and the alignment of both parties' interests. Therefore, they propound a revised version named the behavioral agency theory, which additionally emphasizes the agent's motivation, risk averseness, and time preference. The reasoning behind this refers to agents being the main component of the principal-agent relationship and their ability, motivation, and perfect opportunity will affect their performance.

Furthermore, agency theory does not consider that individual decision may have a substantial effect on organizational strategies (Anthony & Govindarajan, 2007). The theory has also been criticized as it has had no noticeable impact on the boards' control processes. Moreover, the theory assumes a too simple relationship between superiors and subordinates within a company and believes that the board can act completely freely without regard to its shareholders. Also, the lack of consideration for the complexity and dynamic environment of companies and institutions is a problem in the theory (Key, 1999).

5.2.2 Spin-offs and Agency Theory

The relation between spin-offs and agency theory has been widely studied as it can be seen as the dominant theoretical argument for enlightening the benefits of a reduction in diversification and for explaining the wealth effects from spin-offs (Moschieri, 2011). The agency theory was designed to address that a shift in focus from a hierarchy to the market facilitates the resolution of the conflicts of interests (Semadeni & Cannella, 2011). Such a shift is achieved through a spin-off since an independent firm emerges from a part of the parent company.

The agency theory perspective of spin-offs suggests that the traditional principal-agent relationship exists in the case of a spin-off (Krishnaswami & Subramaniam, 1999). More specifically, spin-offs often occur within firms with a higher degree of information asymmetry between principals and agents. Post-spin-offs, this information asymmetry is usually decreased, leading to improved valuation accuracy and greater clarity in the principal-agent relationship for both the spun-off company and parent firm.

Furthermore, agency problems relating to management's attempts to maximize their personal utility at the shareholders' expense can also reduce following a spin-off. After a spin-off, top managers of the newly created entity often invest substantially in the new firm, leading to an increase in the alignment of managerial and shareholders' interests (Allen, 2001). Moreover, as an independent market entity, the management may have the possibility to increase their gains following positive performance results (Semadeni, 2004). However, the management also faces the risk of losing more if the firm does not reach the targets. Consequently, management is under pressure to perform well and increase firm performance, leading to further alignment of interests as well as a reduction in agency costs.

5.3 Transaction Cost Theory

The second theory used in this thesis is the transaction cost theory, which is well established in the field of strategic management. While the agency theory focuses on the principal-agent relationship and separation of ownership and control, the transaction cost theory deals with the costs arising from the boundary between markets and hierarchies (Coase, 1937). The focus of the theory is to minimize transaction costs, defined as the negotiating, monitoring and enforcement costs arising when two parties exchange resources (Jones & Hill, 1988). The costs arise as a consequence of potential transaction difficulties in the exchange process, typically when dealt with specialized and complex resources (Williamson, 1975).

According to Coase (1937), the transaction cost is the deciding factor in the choice between conducting an activity inside a firm or using the external market. If the transaction cost of an activity is higher when keeping the activity inside the firm than using the market, the firm will choose the latter and vice versa. The theory can therefore be used to explain the use of multidivisional corporate structures and vertical integration (Semadeni, 2004). For example, Teece (1982) argues that diversification is an efficient way of organizing a firm and decreasing transaction costs. This is especially true when an exchange includes specialized resources, such as organizational knowledge, as these are often subject to contracting issues.

The theory may also explain why firms may not use diversification as a corporate strategy. If a firm is too diversified, difficulties may arise in managing divisions efficiently within the firm (Coase, 1937). The internal capital markets within diversified firms provide a basis for exploration of such difficulties, which will be described below.

Internal Capital Markets

Williamson (1970) argues that as firms become larger and more complex, a multidivisional firm is seen to be the most efficient organizational structure. The reason being that the structure creates an internal capital market and facilitates efficient resource allocation, which can be value creating for the firm. However, recent research questions this and provides evidence that firm diversification beyond a certain level is value destroying in the sense that resources may flow from high growth and efficient divisions to low-performing and inefficient divisions (Agarwal et al., 2011). As a result, the inefficient resource allocation from diversification may lead to a decrease in firm value due to higher transaction costs. Thus, a firm may be better off as less diversified, with the ability of lowering costs relating to internal coordination and governance inefficiencies (Rumelt et al., 1991).

5.3.1 Criticism

In contempt of the importance of transaction cost theory and its wide usage for analysis of strategic and organizational issues, the theory has been criticized (Perrow, 1986; Granovetter, 1985; Ghoshal & Moran, 1996). The critique directed towards the agency theory, relating to too much focus on the principal-agent conflict and alignment of interests between the two parties, has also been leveled against the transaction cost theory. Similar to the agency theory critique by Wiseman and Gomez-Mejia (1998), Perrow (1986) criticizes the transaction cost theory due to the lack of human behavior considerations. Moreover, he criticizes that organizational changes are not solely carried out due to a change in transaction costs, but also due to differences in motives by the individuals involved. Granovetter (1985) agrees with this and states that the theory ignores the contextual grounding of human actions and puts insufficient emphasis on human motivation.

Others criticize the theory and suggest that its underlying assumptions and logic are both incorrect and risky for corporate managers to rely on (Ghoshal & Moran, 1996). The critique refers to the theory's lack of recognizing the difference between organizations as a substitute for markets to structure efficient transactions, and organizations as efficient and preferable in governing various economic activities.

5.3.2 Spin-offs and Transaction Cost Theory

The transaction cost theory argues that corporate changes improving efficiency will lead to cost reduction and an improvement in firm value. Spin-offs can be seen as such a change, as it may lower internal coordination costs and governance inefficiencies, making the theory suitable to explain the positive wealth effects from spin-offs (Bergh, 2017; Semadeni, 2004).

Spin-offs may offer both parent and spun-off companies the opportunity to eliminate diseconomies and create flexibility in contracting (Hite & Owners, 1983). The spin-off can reduce the transaction costs relating to inefficient behavior, leading to improved market performance (Semadeni, 2004). An example is corporate cross-subsidies, where the spin-off forces the spun-off company to seek alternative sources of capital due to the lack of internal capital market post-spin-off. In the case of efficiency improvements in such a process, transaction costs may decrease for spun-off companies that transferred capital to other divisions previously. Thus, spin-offs may create the opportunity to improve managerial governance and to lower transaction as well as bureaucratic costs, leading to improved shareholder value and overall firm efficiency.

5.4 Resource-based View

The third and last theory is the resource-based view (RBV), which was developed as a theoretical framework for analyzing business strategy. The theory builds on the ideas first proposed by Penrose (1959), where firms are best viewed as a collection of resources or capabilities used in generating two types of economic benefits; (1) cooperative and strategic or (2) competitive and financial (Hill et al., 1992; Hoskisson et al., 1993; Wernerfelt, 1984). Cooperative and strategic benefits refer to the sharing of highly specialized resources, such as skills and labor, while competitive and financial benefits refer to increased internal efficiency and generation of competitive advantages. The resources can be either physical, such as equipment or innovative products with protecting patents, or intangible, such as firm brand, knowledge or routines in operations (Wernerfelt, 1984). According to the theory, firms will expand or diversify into new markets as a mean to create firm value and increase performance.

According to Wernerfelt (1984), the more rare and harder to imitate or substitute a given resource is, the more valuable it will be. If firms possess or develop highly valued resources, these may contribute as a first mover advantage, yielding a so-called resource position barrier. As a result, the potential economic gains for competitors may diminish, while at the same time increase the possessors' possibility for high returns due to an advantage over other players in the market.

A firm that has developed a competitive advantage through its resources is protected to the extent that its resources are specific to certain areas of the organization (Silverman, 1999). The application specificity of the resources often concentrates to only a few parts of the organization, and thus, the resources may be difficult to utilize in a new context. Therefore, empirical research in diversification has argued that more related diversification supports the competitive advantage for the firms, due to an increased opportunity to exploit the area-specific resources (Silverman, 1999). Diversification in relation to firm resources will be described more below.

Resources and Diversification

RBV proposes that firms will create an opportunity to exploit their core resources and capabilities through diversification. Wernerfelt (1984) argues that in order for a firm to maintain a competitive advantage when considering to expanding its business, the given target must possess resources that are supplementary and complementary to the resources already in the buyer's possession. However, as firms become more diversified across products and geographic markets, firm expansion strategies may need to be revised due to less optimal use of resources (Bergh, 1995). The increased diversity in resources, such as additional complementary products, can result in a reduction of a firm's market share for its existing products as well as resource cannibalization due to the time required to acquire and integrate additional resources (Roberts & McEvily, 2005).

The arguments discussed above suggest that diversification may not always have positive results. According to Peteraf (1993), diversification will mainly be successful when there are a strategic fit and relatedness between internal resources and capabilities. Firms that diversify their businesses and pursue unrelated expansions usually find it harder to manage peripheral investments than related diversified firms (Berry, 2010). Montgomery and Wernerfelt (1988) mean that when a resource in which the firm has a competitive advantage is used in distant applications, the value of the resource in question declines. They argue that such firms may need to refocus to activities with high growth opportunities or those which are closer to the core business, potentially leading to increased firm performance.

5.4.1 Criticism

The RBV offers a theoretical framework useful for analyzing business strategy and how firms may gain sustained competitive advantage. However, researchers have presented various limitations of the theory (Kraaijenbrink et al., 2010; Connor, 2002; Lockett & Thomson, 2001)

Kraaijenbrink et al. (2010) argue that the theory lacks managerial implications. The theory explains that firms can enjoy various economic benefits through the development of strategic resources. However, the theory does not explain *how* managers attain such benefits (Connor, 2002). Moreover, Kraaijenbrink et al. (2010) argue that a sustained competitive advantage is not achievable, as firms operate in a dynamic environment characterized by innovation, change, and competition. Thus, the competitive advantage may only hold in the short-term. Also, the theory does not consider external factors affecting a firm's success in generating competitive advantage, such as the demand of customers in the market (Lockett & Thomson, 2001).

5.4.2 Spin-offs and Resource-based View

The RBV states that firms will expand or diversify into new markets as a mean to create firm value and increase performance. However, as described above, risks relating to less optimal use of resources exist for firms too diversified across products and geographic markets. The risks become only mitigated through a strategic fit and relatedness of resources, leading to higher efficiency in managing activities that are closer to the core of the business. If this is not present in an organization, the firm may be better off by splitting up into more than one entity and thereby focusing on fewer resources.

A spin-off may offer a solution to the issues of excess diversification and improve firm performance. The spin-off will create firm value through the redistribution and redeployment of assets, due to the reduction in opportunity costs and maximization of prospects for the assets in question (Bergh, 2017). Refocusing on activities that are closer to the core business, by separating unrelated internal resources and capabilities, will improve the firm's resource heterogeneity and may produce higher financial performance (Peteraf, 1993; Montgomery & Wernerfelt, 1988; Bergh 2017). An underlying criterion is that the activities and resources of the spun-off company are not closely related to strategic assets or other divisions within the parent firm (Bergh, 2017).

5.5 Summary of Theoretical Framework

The following section provides a summary of the theoretical framework. As previously mentioned, the research question and previous literature related to spin-off wealth effects have guided the authors in the development of the theoretical framework. Table 5 summaries the theories and their relation to spin-offs. Moreover, it presents the theories relation to the three most common factors explaining spin-off wealth effects presented in the literature review in *chapter 3*; reduced information asymmetry, improved capital allocation and increased corporate focus.

Theory	Summary of Theory	Relation to Spin-offs	Relation to the Thesis
Agency Theory	Highlights the conflict of interests which arises through the separation of ownership and control, leading to information asymmetry, agency problems and agency costs	Is the dominant theoretical argument for explaining spin-off wealth effects, as the conflict of interest directly applies to corporate spin-offs	Relevant for reduced information asymmetry
Transaction Cost Theory	Focuses on minimization of transaction costs and explains the advantages and disadvantages of multidivisional corporate structures	Spin-offs may reduce transaction costs relating to inefficient behavior such as corporate cross-subsidies	Relevant for improved capital allocation
Resource-based view	Emphasizes the importance of firm diversification, where possession of highly valued resources creates various economic benefits	Absence of a strategic fit and relatedness between resources will decrease firm value, where spin-offs offer a solution to such inefficiencies	Relevant for corporate focus

Table 5. Summary of Theoretical Framework

6 Empirical Findings and Analysis

In this chapter, the three most commonly mentioned value drivers for shareholder wealth effects following spin-offs will be analyzed in the case company context. The authors will present the empirical findings obtained by applying the theoretical framework of the thesis. The chapter starts with agency theory by analyzing information asymmetry and thereafter continues with the transaction cost theory investigating the capital allocation perspective. Lastly, the resource-based view is analyzed together with the factor of increased corporate focus. In the end, the chapter presents a summary of all findings.

6.1 Agency Theory

In this study, the agency theory is analyzed from the perspective of information asymmetry between management and investors, and if a possible change in available information has affected the shareholder wealth effects since the spin-off of Arjo. Information asymmetry is suggested to decrease after a spin-off due to increased transparency of the firm for investors as well as an improved relationship between investors and management. As follows, the shareholder wealth effects might increase.

The following section will present the empirical findings concerning agency theory. The section is divided into two areas; firm valuation and managerial incentives. The first area will focus on the effects of the spin-off on information asymmetry and how these have affected the firm value and thereby the shareholder wealth effects. The latter area will focus on how the potential decrease in information asymmetry has affected management's incentives, the incentives effects on agency problems and costs, and how this has affected the development of the share.

6.1.1 Information Asymmetry

Firm Valuation

After a spin-off, firms become less complex and less diversified, leading to improved visibility and understanding of the business (Gibson, 2019). Consequently, information asymmetry may decrease. Before the spin-off of Arjo, the market did not properly understand the business since the division lacked a full financial statement breakdown (Stentoft, 2019). Visible for external stakeholders was a poor performing unit within the Getinge group (Lindoff, 2019). Hence, the spin-off enabled investors to become better equipped with information about the firm and its performance, due to the introduction of detailed financial statements (Stentoft, 2019). Gibson (2019) agrees with this and suggests that when separating a division from a larger group, the availability of data increases, enabling deepened insight into the firm. However, Arjo is still a diversified firm with various product segments driving growth, limiting the full insight of the business for the market (Lykke, 2019).

According to both Gibson (2019) and Lykke (2019), improved availability of information, and thereby reduced information asymmetry, do not necessarily have to affect the shareholder wealth effects in a positive manner. The transparency alone does not increase the share price (Lykke, 2019). If the outside market envisions a great asset, the improved visibility will have a positive effect, while the opposite may be true if the spin-off reveals an unattractive asset base (Gibson, 2019). In the case of the Arjo spin-off, the increased firm transparency presumably revealed an interesting investment. However, since no arguments suggest a direct relationship between increased transparency and share return, the shareholder wealth effects have only possibly increased by such change.

To overcome the issue of information asymmetry, the agency theory states that management is required to send signals to less informed investors. As described in the case company chapter in *section 4.2.3*, Arjo reached many of its growth targets during 2018, sending signals of the condition of the firm to shareholders. Both Stentoft (2019) and Lindoff (2019) identify the signals of consistently delivering on communicated promises as an underlying reason for the increase in shareholder wealth effects after the spin-off. It is of high importance to deliver on set targets, despite the degree of transparency of the firm, since this will contribute to investors feeling more comfortable with Arjo's prospects (Stentoft, 2019). Consequently, the management of Arjo has initiated *Arjo 2020*, a mid-term performance plan with the aim at turning the company to profitable growth and fulfill short-term targets, (Lindoff, 2019). The performance plan can be seen as a mean to regularly update investors with the firm's strategic actions and achievements. By communicating and delivering on the promises stated in the performance plan, Arjo is signaling the wellbeing of the firm to its investors, which reduces information asymmetry (Stentoft, 2019). Consistently, Lykke (2019) argues that, from an analyst perspective, delivering on promises is essential for a positive development of the share. Thus, the regularity in delivering upon targets is argued to be one of the main drivers of the shareholder wealth effects (Lindoff, 2019; Stentoft, 2019).

Another relevant signal to shareholders was the positive reception of the spin-off from Arjo's main owner, Carl Bennet, who decided to keep his shares in Arjo (Gibson, 2019). Carl Bennet was very engaged during the negotiations of the spin-off, where he clearly stated his intentions of keeping his shares in Arjo and possibly increase his ownership going forward (Lindoff, 2019). These statements brought comfort to the firm's shareholders (Stentoft, 2019). Nonetheless, Gibson (2019) means that, despite the signals from Carl Bennet's confidence in Arjo's future, the market did not necessarily perceive their relevance in the period around the spin-off. Instead, Arjo was by that time seen as an underperforming firm, with no apparent reasons to expect any improvements (Gibson, 2019). Thus, the positive development of the share seems not to be traceable to the signals from Arjo's main owner, even though this promoted a decrease in information asymmetry.

Due to a general belief that the Arjo would have difficulties in generating any revenue growth, the enhancements in the firm's performance already in the first year as a listed firm came as a surprise. (Stentoft, 2019). The significant performance during the first year may have improved the understanding of the firm's business opportunities. Gibson (2019) suggests that such turnaround in performance possibly increased the shareholder wealth effects, while also reduced the information asymmetry between the firm and its investors.

When Arjo grew in the first quarter, the share increased significantly (Lindoff, 2019). This changed the perception of the firm and how investors model the company, which might have affected the valuation possibilities for the market (Gibson, 2019). Aligned with this, Sjöswärd (2019) suggests that the transparency of the firm has led to an increased possibility of accurate valuation by analysts and investors. The interpretation of this is twofold. On the one hand, it can affect the valuation possibilities of Arjo in the sense of increased predictability of future performance. On the other hand, it can also affect the valuation possibilities of Arjo in the sense of a more extensive comparison base, resulting from an increased interest in the firm and thereby a greater quantity of valuations. Despite improvements in valuation possibilities since the spin-off, a large community still have difficulties in reaching clarity of Arjo's prospects and long-term abilities (Lindoff, 2019). This question the accuracy in the valuations. Nonetheless, information asymmetry has been lowered, possibly enabling more accurate and favorable valuation in the market, affecting shareholder wealth effects positively.

In relation to valuation possibilities, the concept of conglomerate discount becomes relevant. Arjo's true and potentially higher value might have been revealed after the spin-off due to a lack of transparency for analysts and investors before. However, it is unclear if the Getinge group suffered from a conglomerate discount before the spin-off, where the value would be lower relative to the sum of the standalone values of all business units. The Arjo division would in such case potentially be valued higher when separated from the larger group. With a higher value after the spin-off, the shareholder wealth effects would increase. Such an assumption is however not evident, where Gibson (2019) instead means that the conglomerate discount of various business units is a false representation of the value of a diversified firm. The valuation should instead be analyzed in the light of inefficient capital allocation, which will be discussed further in *section 6.2.1*.

Table 6 summarizes the findings in relation to information asymmetry and firm valuation. The key findings suggest that information asymmetry has been lowered since the spin-off due to various reasons. Firstly, the spin-off has created a more transparent view of Arjo, due to the introduction of detailed financial statements. Secondly, since Arjo became a standalone firm, it has been able to consistently deliver upon targets and promises, thereby signaling its prospects. Thirdly, the signals of trust and confidence from Arjo's main owner have also informed the market of Arjo's strong foundation. Fourthly, the turnaround in performance has also envisioned Arjo's potential. Lastly, the transparent view of the firm has led to improved possibilities in estimating the firm value accurately, leading to an increase in information available for the market.

The majority of the reasons for a decrease in information asymmetry have or possibly have led to an increase in shareholder wealth effects. The increased transparency of the firm, its turnaround in performance and the improved possibilities in estimating the firm's true value have potentially attracted investors due to the uncovering of an attractive investment, possibly increasing shareholder wealth effects. Furthermore, while Arjo's consistency in delivering on promises is suggested to have a direct impact on the increase in shareholder wealth effects, the signaling from Arjo's main owner, while still lowering the information asymmetry, did not show a definite impact on the share price. The authors find no evidence which strengthens the existence of a conglomerate discount before the spin-off, questioning if shareholder wealth effects have been affected by a higher value of Arjo from being separated from a larger group.

Key Findings	Effects on Information Asymmetry	Underlying Value Driver for Shareholder Wealth Effects
Increased transparency into the Arjo business due to the availability of detailed information	Lower	Possibly
Signaling through consistency in delivering on communicated targets	Lower	Yes
Signals from Arjo's main owner, providing confidence for owners	Lower	No
Performance turnaround already in the first year as a listed firm	Lower	Possibly
Possibly more accurate and favorable market valuations of Arjo	Lower	Possibly
No evidence of conglomerate discount in the Getinge group	N/A	Not evident

Table 6. Summary of Empirical Findings Related to Firm Valuation

Managerial Incentives

When an entity is spun-off from a parent company, its performance becomes more transparent and can easily be perceived by investors due to lower information asymmetry. As a consequence, management feels the pressure to work align with the interests of investors as their actions can be monitored. Gibson (2019) means that the spin-off of Arjo facilitated investors' observance of the performance and actions of Arjo's management. Furthermore, Lykke (2019) suggests that the influence on the shareholder wealth effects have been positive as it visualized a well-performing management.

The Arjo management team is well aware of the observation from the external market on their actions and performance, which has led to an increase in their motivation since the spin-off (Lindoff, 2019). When comparing with the Getinge group, Lindoff (2019) means that the focus on performing aligned with external stakeholders' expectations was not as present before the spin-off, due to the firm being part of a larger organization. Stentoft (2019) agrees with this but also stresses its relevance for all employees, whose motivation increased subsequent the spin-off as it would entail not being part of a larger group that did not prioritize their business segment. Thus, employees are more engaged in their daily work and are committed to increasing effort. Lindoff (2019) further argues that employee engagement has led to a higher commitment to reaching set targets. This implies that the increased visibility of employees' performance motivates the firm. As this might result in higher probabilities of delivering on set targets, the attractiveness of the firm might increase, leading to rewards in the form of increased shareholder wealth effects.

The vertical distance between employees and management within the Getinge group shrunk significantly after the spin-off. Arjo's new horizontal structure enables more direct implications of decisions and performance, where employees acknowledge that their work and achievements have an impact. Furthermore, due to the size of Arjo, the link between the actions of employees and its effects on shareholder wealth effects can be explained more easily. This applies to the management as well, where their actions may result in effects on financial performance. When the market notices the superior performance, the share return might increase, aligning the interest of the investors with the firm. The direct link between performance and shareholder wealth effects indicate the importance of the employees and management's efforts. (Lindoff, 2019)

A central concept in the agency theory is agency problems, which arise when the management attempt to maximize their personal utility at the cost of shareholders. Getinge's excess diversification and focus on growth maximization possibly increased agency problems due to difficulties in aligning with shareholders' interests. However, agency problems can be reduced following a spin-off as the management usually invest substantially in the new firm, facilitating the alignment of the firm's and shareholders' interests. Furthermore, a spin-off can also reduce agency problems with more effective incentive plans for the managers, which might not have been possible when the firm was part of a larger group. Gibson (2019) states that the spin-off has created possibilities for Arjo to act align with the interests of its investors. This may be a result of Arjo's three managerial inventive programs which were initiated after the spin-off; a short-term incentive program (STIP), a long-term incentive program (LTIP) and a synthetic stock option program (Lindoff, 2019).

Before the spin-off, the STIP was formed differently, where managers in the Getinge group had their STIP linked to financial numbers within their department (Lindoff, 2019). Thus, the STIP resulted in short-term decisions that would sub-optimize the financial numbers in each department, rather than focusing on which aspects that could improve the overall performance of the firm. Therefore, Arjo's management team decided to make adjustments to the incentive program after the spin-off. The new STIP in Arjo is linked to more relevant and influenceable targets aligned with the firm's budget, making the managers striving toward the same target. However, the STIP has no connection to the share price, due to the risks of having management too focused on maximizing share performance in the short-term. Instead, the STIP generates a more sustainable growth for the share. This creates confidence from a shareholder perspective regarding the prospects of the share development, leading to lower agency problems and possibly an increase in shareholder wealth effects.

Furthermore, the LTIP is a three-year incentive plan connected to financial performance, which covers approximately 65 people in the extended leadership team (ELT), including Arjo's management team (Lindoff, 2019). Neither the LTIP is directly connected to the share performance, but only to the extent that managers are required to reinvest the taxed amount of the payoff from the program in Arjo shares until the investment is worth a full-year salary, independently of the share price. Hence, the management's reward is indirectly connected to the development of the share price. For the ELT, except Arjo's management team, the LTIP is suggested to be the primary motivator for Arjo's long-term performance, possibly leading to an increase in shareholder wealth effects due to its indirect connection to the share price.

For the management team, a synthetic stock option program was initiated by the main owner Carl Bennet after the spin-off (Lindoff, 2019). The intention was to upturn direct commitment from management to increase shareholder wealth effects. The program implies that the management has the chance of generating large payoffs if the share price increases, while also run the risk for it to become worthless if the share price falls. The synthetic stock option program is therefore said to be the most important incentive program in terms of motivation for the management. Consequently, investors can observe the management's engagement and willingness to improve the shareholder wealth effects. This is an indirect factor for investors' confidence when deciding to invest in Arjo, leading to further alignment of interests between the management and investors, and thus, fewer agency problems.

However, Lindoff (2019) suggests that the incentive programs themselves may not have fully affected the share price during 2018, where the long-term effects have not been fully exploited yet. Despite this, he means that the incentive programs have undoubtedly resulted in higher commitment and motivation as well as more efficient work processes. Such improvements might affect the shareholder wealth effects to some extent. Furthermore, the development of the share in itself has been a motivator for the management, as it measures how the outside market perceives the firm (Lindoff, 2019). As the incentive plans have been designed to capture the management's performance more effectively, investors are reassured that the management will strive to achieve targets and continue its journey in building a profitable and sustainable Arjo. This is supported by Gibson (2019), who suggests that Arjo's dedicated management and CEO provide confidence to investors in its performance and prospects. Consequently, Arjo becomes an attractive investment, where an increase in demand stimulates the share return.

A summary of the empirical findings related to managerial incentives is shown in table 7. As can be seen, the managerial incentives seem to have lowered agency problems, and thus, agency costs due to mitigation of the misalignment of interest and less information asymmetry due to various reasons. Firstly, the spin-off increased the motivation of the management within the firm due to the visibility of their performance, leading to a focus on performing aligned with the expectations of investors. Secondly, the horizontal structure and decrease in firm size after the spin-off enable employees to understand the direct implications of their decisions and performance, potentially leading to improved performance and increased alignment of interests. Thirdly, the three new incentive plans, especially the synthetic stock option program, further motivate the management to perform well and act align with shareholders' interests. Lastly, the incentive plans reassure investors that the dedicated management will strive to achieve the communicated targets.

However, it is not clear how significant the impact has been on the shareholder wealth effects from the findings. The increased motivation due to observation from the market and the reassurance for investors from the incentive plans seem to have had a direct positive effect on the share return. Per contra, the horizontal structure's implications, as well as the three managerial incentive plans, have only possibly resulted in increased shareholder value to some extent.

Key Findings	Effects on Agency Problems	Underlying Value Driver for Shareholder Wealth Effects
Increased motivation due to observation from the market, leading to more attention in performing aligned with expectations	Lower	Yes
The horizontal structure and decrease in firm size enable direct implications of decisions and performance	Lower	Possibly
Three managerial incentive plans, which indirectly motivate the management to act align with shareholders' interests	Lower	Possibly
The incentive plans reassure investors that the management will strive to achieve targets, which provides confidence to investors	Lower	Yes

Table 7. Summary of Empirical Findings Related to Managerial Incentives

6.2 Transaction Cost Theory

The transaction cost theory is often used to explain the advantages and disadvantages of multidivisional corporate structures. As firms become further diversified, transaction costs become higher due to inefficient and complex resource allocation, leading to a decrease in firm value. Spin-offs can be seen as a mean to lower these internal coordination costs and governance inefficiencies, leading to improved firm value.

The following section presents the empirical findings related to the spin-off of Arjo and the changes in capital allocation processes subsequent to the spin-off. The changes and their possible effects on shareholder wealth are analyzed through the transaction cost theory, where efficiencies in capital allocation result in decreased transaction costs. The larger decrease in transaction costs after the spin-off, the larger increase in firm value and shareholder wealth effects.

6.2.1 Capital Allocation

Capital Allocation Before the Spin-off

As a part of the Getinge group, Arjo was not growing at the same pace as the rest of the medical device market (Stentoft, 2019). Arjo had a lower growth compared to the rest of the Getinge group, where the Acute Care Therapies division had the best growth prospects. However, from an external perspective, there were no reasons why Arjo would grow at a different pace than Getinge due to equal macro possibilities in the healthcare market (Sjöswärd, 2019). On the other hand, from an internal perspective, Arjo had several periods of negative growth and was not contributing to the group's overall profitability. One could therefore question if the critical resources needed for Arjo to perform well were allocated to higher growth divisions.

Thus, when it came to growth and profitability in the Getinge group, Arjo was seen as the deteriorating part of the firm. Sjöswärd (2019) means that this probably resulted in underinvestment in the Arjo-division, both in terms of tangible as well as intangible resources, since the focus lied on other divisions with better momentum. Evidently, there was a bias towards other business areas due to the natural decision of allocating resources and top talents to divisions that delivered higher profitability. Stentoft (2019) confirms this and suggests that investments related to R&D and M&A were not in favor of the Arjo division. Instead, extensive projects and acquisition allowance were directed towards complicated surgical equipment, resulting in Arjo having difficulties getting resources. This might have led to higher transaction costs as the allocation process seemed to be inefficient.

A spin-off can reduce the complications related to bargaining for resources between divisions and management, leading to lower transaction costs. Before the spin-off, the resource allocation followed a straightforward process, where the group CEO together with the CEO of each business area discussed and reached agreements on resources needed (Stentoft, 2019). This process was not in favor of Arjo since poorly performing divisions received no additional resources. Taken together, the allocation process was uncomplicated. Thus, no significant transaction costs seemed to be related to the negotiating, monitoring and enforcement part when exchanging and allocating resources across divisions, questioning if the spin-off has led to even lower transaction costs due to less bargaining.

Furthermore, a spin-off may reduce the transaction costs relating to inefficient processes in cross-subsidies for the spun-off company, provided that it previously transferred resources to other divisions. However, Arjo was not a division that other departments were dependent on (Sjöswärd, 2019). Instead, the opposite was true, where Arjo was dependent on other divisions when in need of capital. This may require Arjo to seek alternative sources of capital after the spin-off, raising the question of whether the transaction costs have increased due to the loss of the internal capital market in the Getinge group.

Capital Allocation After the Spin-off

The changes in transaction costs when comparing the resource allocation processes before and after the spin-off can have significant effects on the value of the firm, where lower transaction costs lead to an increase in firm value. Thus, an important element regarding the success of the decision to make Arjo a separate entity can be seen through a comparison of the transaction costs, where many aspects suggest that these have been lowered since the spin-off. These will be described below.

Today, Arjo is growing at the same pace as the rest of the medical device market (Stentoft, 2019). The firm has the opportunity to allocate generated returns solely into its own business, aside from what is given to shareholders. The spin-off has therefore created an opportunity for Arjo to monetize its assets more effectively. Furthermore, the firm can utilize the resources needed for growth and profitability, due to their fit with the company's overall operations and growth objectives. Consequently, issues relating to the underinvestment in the Arjo division within the Getinge group seem to be somewhat resolved, leading to lower transaction costs as efficiencies have arisen. The shareholder wealth effects have possibly increased due to a higher firm value from lower transaction costs.

There are no signs of high transaction costs related to the bargaining of resources with other divisions before the spin-off. On the other hand, Arjo has created a flat organizational structure after the spin-off, improving the transparency and communication across the firm. This encourages efficiency in allocating capital according to specific needs. Hence, it is difficult to justify whether the spin-off has further decreased the already low transaction costs related to bargaining between divisions and if this has led to increased shareholder wealth effects.

Since Arjo became a standalone firm, it can no longer benefit from the internal capital market in the Getinge group. According to the transaction cost theory, this can increase transaction costs as it requires Arjo to seek capital externally. However, Lindoff (2019) suggests that this is not preventing the firm's possibilities of growing as the firm can support itself, being a cash generative operation. Thus, there has never been a discussion relating to an absence of capital since the spin-off. The separation allows Arjo to allocate resources where needed due to fewer constraints from Getinge. Furthermore, Arjo realized the importance of investing wiser, as the old settings allowed investments in areas that did not generate growth for Arjo. The amount of the investments is no longer considered important, but rather making sure that resources are appropriately allocated in the ecosystem. Consequently, the arguments of increased transaction costs due to less available capital does not apply to the case of Arjo. Instead, these might have decreased as Arjo is a self-supporting business, possibly leading to positive effects on shareholder wealth.

Furthermore, Stentoft (2019) means that the spin-off created a clearer view of individual divisions' opportunities, leading to resources being utilized more effectively. He further argues that the spin-off not only pointed out existing opportunities, but also the issues. For instance, it became apparent that one of Arjo's biggest markets had been declining in the last five years. As such issues would not previously have been elevated in terms of importance, the spin-off enabled the management team to direct the needed resources in order to solve the problems. Since the spin-off, Arjo has been able to locate issues and execute fast on action plans, bringing up the earnings again, which is essential from a shareholder wealth perspective (Lykke, 2019). Lindoff (2019) agrees that the visibility of opportunities has increased and further suggests that Arjo is driven in a completely different way than as a part of Getinge. Issues are today solved by Arjo as a team, instead of an initial analysis of whose fault it was, as was the case in Getinge. Following this, Arjo as a standalone company has better traction and understanding of how they should allocate their resources internally as well as externally. It can be argued that such improvements have led to lower transaction costs due to a facilitated allocation process, and thus, a possible increase in shareholder return.

Lindoff (2019) believes that resource allocation processes have improved due to increased engagement across the organization. Arjo's top management has spent a considerable amount of time telling the "Arjo-story" internally, intending to make employees understand the business and in which direction they wish to go. Lindoff (2019) argues that by articulating the desired direction of the company and by paving the way for the strategy, employees can further break down the procedures at various levels in the organization. As follows, capital can be allocated aligned with the intended direction in an engaging manner, leading to increased possibilities for Arjo to achieve its goals. The spin-off has in that sense increased opportunities of explaining directions of resource allocation. Taken together, the communicated direction followed by the increased engagement has resulted in more efficient capital allocation, and thus, lower transaction costs and a possible increase in shareholder wealth effects.

As become apparent from the above arguments, the capital allocation has improved subsequent to the spin-off, where transaction costs have most likely been lowered. Aligned with the transaction cost theory, lower transaction costs should in turn lead to higher firm value. Stentoft (2019) argues that Arjo is allocating capital more efficiently, but that the improvements have not benefitted the firm nor its shareholders yet. An underlying reason is the time required for various projects to have a noticeable impact, thereby instead possibly benefitting Arjo in the future. It is yet to be seen in the long-term how the efficiency improvements in resource allocation will affect the Arjo share, where Stentoft (2019) believes that the improvements can completely transform Arjo in a few years.

On the other hand, Lindoff (2019) believes the improvements in capital allocation have affected the development of the Arjo share to some extent. Internally, the spin-off has directed people to focus on the right aspects of the business, where capital allocation facilitates the achievement of long-term goals. The key is that people understand what Arjo stands for as well as making sure that Arjo delivers upon targets communicated to the external market. If capital is allocated to areas that will help achieve those targets, there will be a significant impact on the share, since possible achievements have a great influence on how external stakeholders perceive the Arjo share.

Gibson (2019) agrees with Lindoff and argues that the spin-off created opportunities for Arjo to reinvest capital from the now profitable business, which has affected the firm value positively. He suggests that lower firm value is partly driven by inefficient capital allocation within diversified groups, which can destroy capital over time. If a firm is profitable and cash generative but uses these returns to build various complementary and inefficient businesses, the firm may run the risk of being exposed to a conglomerate discount. Gibson (2019) suggests that if a firm is not able to maintain a premium on its capital when expanding its business, the best strategy is to give back to shareholders. Therefore, companies should solely prioritize to allocate capital to those areas where they can make a return.

Furthermore, Gibson (2019) suggests that the bureaucracy present in Getinge as well as the subsequent costs, affect the firm value. The process of managing the allocation of capital typically means substantial overhead costs. Thus, when separated Arjo from Getinge, possibilities increased to reinvest capital in order to receive a higher return, affecting the Arjo share positively. Such improvements in capital allocation correspond to the interests of the shareholders, leading to enhancements in how investors perceive the company.

Table 8 summarizes the findings related to the improved capital allocation process subsequent to the spin-off. The improved processes have led or possibly led to decreased transaction costs due to various reasons. Firstly, the resolution of issues related to the underinvestment in Arjo has led to lower transaction costs, as efficiencies have arisen. Secondly, Arjo's flat organizational structure may have improved communication across the firm, encouraging efficient capital allocation according to specific needs. This might have further decreased the already low transaction costs related to the limited bargaining between divisions, but such change is not evident. Thirdly, there is no evidence of increased transaction costs due to the loss of the internal capital market, but rather that these might have decreased since Arjo is a cash generative operation. Fourthly, a clearer view of how to allocate resources between divisions has further led to an enriched allocation process, also lowering the transaction costs. Lastly, increased engagement across the firm together with enhanced opportunities for explaining desired directions of resources has led to lower transaction cost as well. Aggregated, the decrease in transaction costs should lead to a positive effect on firm value according to the transaction cost theory.

However, due to conflicting arguments regarding the effects on shareholder return from the improved capital allocation, one might question whether this is an underlying value driver of the positive share development. While arguments suggest an increased opportunity to prioritize capital towards areas facilitating the achievements of long-term goals, other arguments suggest that the improvements in capital allocation may not have benefitted the firm or its shareholders yet. Instead, the improvements might affect Arjo positively in the future due to the time required for projects to have a noticeable impact. Furthermore, as the transaction costs have most likely been lowered after the spin-off due to efficiency improvements within Arjo, the firm value and the shareholder wealth effects should increase according to the theory. As this study finds no such evidence, the ability for the transaction cost theory to explain shareholder wealth effects following spin-offs is questioned.

Key Findings	Effects on Transaction Costs	Underlying Value Driver for Shareholder Wealth Effects
No longer underinvestment in Arjo, leading to improved growth and more efficient capital allocation process	Lower	Not evident
The flat and transparent organizational structure encourages efficiency in allocating capital	Not evident	Not evident
Loss of internal capital market seems not to have affected Arjo, being a cash generative business	Possibly lower	Not evident
A clearer view of divisions' opportunities and issues, leading to improved capital allocation	Lower	Not evident
Improved capital allocation due to increased engagement and enhanced opportunities for explaining the desired direction of resources	Lower	Not evident

Table 8. Summary of Empirical Findings Related to Capital Allocation

6.3 Resource-based View

In this study, the resource-based view (RBV) is applied to analyze Arjo's ability in generating economic benefits through its resources. In terms of corporate restructurings, the theory states that diversification into related businesses better exploits synergies with existing operations. However, when firms become too diversified across products and geographic markets, a common strategy is to refocus on activities closer to the core business. This can be achieved by spinning off unrelated business divisions, possibly generating various economic benefits for the spun-off company.

As described in *section 5.4* in the theoretical framework, firms can be viewed as a collection of resources or capabilities used in generating two types of economic benefits; (1) cooperative and strategic or (2) competitive and financial. Cooperative and strategic benefits refer to the sharing of highly specialized resources, such as skills and labor, while competitive and financial benefits refer to increased internal efficiency and generation of competitive advantages. The following section will discuss whether Arjo's increase in corporate focus resulted in such economic benefits and if these have led to an increase in shareholder wealth effects.

6.3.1 Corporate Focus

The spin-off of Arjo was mainly motivated as a mean to increase corporate focus (Lindoff, 2019). During the years before the spin-off, Getinge had become further centered around the Acute Care Therapies business area, leading to less focus on Arjo's core business within the Patient & Post-Acute Care division (Stentoft, 2019). The attention was especially directed towards high-technology products related to the operating room and intensive care units, which were profitable relative to other parts of the organization (Sjösward, 2019). From an RBV perspective, Getinge's competitive advantages were generated through such products, leading to less attention to Arjo. The spin-off has in that sense enabled Arjo to redirect attention to its own core business (Lindoff, 2019).

When Getinge first acquired Arjo in 1995, the intention was to broaden the product range, further diversify the business, and improve performance. For Getinge to maintain its competitive advantages when expanding into the Arjo business, the RBV stresses the importance of acquiring resources that are supplementary and complementary to the resources already in Getinge's possession. Furthermore, the theory argues that excessive diversification may decrease performance as a result of negative synergies between the core business and unrelated operations. As such, related diversification is essential to support the firm's competitive advantage. However, Arjo's resources can be argued to be unrelated rather than complementary and supplementary to Getinge's portfolio, suggesting difficulties in enhancing synergies between the two firms before the spin-off. Instead of the initial intention of creating value through diversification, the acquisition of Arjo possibly led to a decrease in market share and firm performance due to higher diversity in resources.

Although similarities existed between the three departments in Getinge before the spin-off, differences became apparent on a detailed level (Sjöswärd, 2019). From a technology perspective, the Arjo products were less sophisticated relative to the other two departments' complex and technologically advanced products (Stentoft, 2019). The Acute Care Therapies department had the most advanced products, whereas the Infection Control & Surgical Workflows department was in the middle of the spectrum in terms of technological sophistication. These two departments complemented each other due to their closeness to the core business of Getinge. The RBV argues that resources which generate economic benefits in the form of competitive advantages are often concentrated to a few parts of the organization, leading to difficulties in utilizing these in other contexts. Aligned with the theory, Lindoff (2019) means that Arjo could not take advantage of the resources available in the Getinge group as the businesses were too different. Thus, Arjo's ability in generating economic benefits has possibly improved after the spin-off, as the firm can take advantage of resources that generate competitive advantages.

Moreover, Arjo diverged from the other departments in terms of customers (Stentoft, 2019). Arjo's products were targeted towards hospitals, long-term care facilities and other customers aside from hospitals, where the product sales were directed towards nursing (Sjöswärd, 2019). The remaining parts of Getinge solely targeted hospitals, approaching doctors with a more clinically advanced perspective. Since the buying and decision patterns differ significantly between these various customers, limited synergies existed between Arjo and the other departments in terms of targeting the same potential buyers. However, Stentoft (2019) means that the Getinge group still offered advantages and synergies in the form of a strong commercial brand and customer relationships, indicating that competitive and financial benefits existed to some extent. Despite a potential loss of such synergies, the economic benefits have most likely increased after the spin-off. Arjo's increased ability to solely focus on customers closer to its core business potentially yields even more economic benefits.

Furthermore, when the Getinge group sold products to hospitals, large tenders could be arranged. These would include all of Getinge's products, including Arjo's portfolio (Stentoft, 2019). However, such positive synergies have been reduced after the spin-off, where the dialogues with hospitals have become thinner due to the lack of perspectives from the remaining operations in the discussions. Together, Arjo and Getinge were able to provide a combined solution to how hospitals could drive effective healthcare. Sjöswärd (2019) means that the collaboration offered advantages in forms of a broad product portfolio and extensive discussions with hospital management, implying a potential loss in synergies when separating the firms. However, as Getinge and Arjo do not operate in directly competing businesses, cooperation between the two still exists to some extent (Stentoft, 2019). This suggests that the loss of synergies may not be severe but still results in reduced negotiation power, limited multiple supplier contracts, and fewer economic benefits in the form of competitive and financial benefits.

With the implementation of One Getinge, the support functions of all departments were merged. Lindoff (2019) means that there were no synergies between the support functions of Arjo and those of the other departments. Arjo's support functions in One Getinge received little attention from the rest of the organization due to their less relevant competence for the rest of the business areas (Lindoff, 2019). As a result, employees left the firm since few believed in a future for Arjo. Lindoff (2019) explains that many employees were also effectively dismissed from roles that were not directly related to the core business, where departments such as marketing and sales suffered from the most considerable amount of dismissals. Evidently, One Getinge meant a significant loss in knowledge for Arjo as well as negative synergies between the division and the remaining parts of Getinge. After the spin-off, approximately 450 new employees have been hired in order to rebuild all functions. Such reconstruction probably entailed cooperative and strategic benefits for Arjo in the form of desirable skills and labor within its core business.

The merge of support functions applied to all but the R&D division, where each department within Getinge had their distinct R&D operations and budgets (Lindoff, 2019). The conflicting customer focus within the group and lack of clear purpose of the Arjo division meant that the R&D investments did not lead to any valuable paybacks for Arjo (Stentoft, 2019). The RBV argues that firms which diversify their businesses and pursue unrelated expansions, as with the case for the acquisition of Arjo, usually find it harder to manage peripheral investments. The increased corporate focus has improved the possibilities of R&D paybacks due to a decrease in the diversity of resources. One can therefore argue that such improvements give rise to economic benefits due to increased internal efficiency.

Before the spin-off, Arjo could not direct enough attention to its largest customer base, namely the long-term care segment (Stentoft, 2019). This implied negative synergies as the efforts within the group resulted in less output for the segment than what could have been achieved by operating alone. Therefore, the spin-off allowed Arjo to restructure the organization around its core business and facilitated to prioritize strategic decisions within the long-term care segment (Sjöswärd, 2019; Stentoft, 2019). Lindoff (2019) validates this by suggesting that the spin-off provided the management with a transparency of how the firm could be revised, where Sjöswärd (2019) means that this led to a firm design in which the operating model was customized for the purpose of the firm. Furthermore, unnecessary overhead costs were left behind in Getinge, resulting in Arjo becoming a lean company with a better understanding on which aspects to concentrate on, thereby increasing the likelihood of guiding the business into its desired direction (Stentoft, 2019). Taken together, since resources are no longer used in applications that are distant from Arjo's core business within long-term care, the firm can improve efficiency and generate competitive advantages. Thus, economic benefits have been positively affected.

Even though the spin-off facilitated an increase in corporate focus, Arjo is still a diversified firm with a broad portfolio in both the long-term care and acute care sector (Stentoft, 2019). As the number of products increase, the processes around medical device regulations and approvals increase in complexity (Lykke, 2019). It could therefore be discussed whether a higher corporate focus towards the long-term care segment could facilitate further improvements in firm performance, as this segment is mostly related to the firm's core business and has the highest growth opportunities.

From the discussions above, Arjo's increase in corporate focus after the spin-off seems to have led to various economic benefits. However, whether the increased focus has been an underlying reason for the shareholder wealth effects is not yet evident. Sjöswärd (2019) believes that improvement in Arjo's performance is highly correlated to the shift in focus, where a focus on core business generally increases the share price due to its appreciation from the external market. Lindoff (2019) validates this and believes that Arjo's increase in tactical focus has strongly affected the firm's turnaround in performance during 2018, where the performance is strongly linked to the development of the share. Therefore, he argues that the main underlying value driver for the positive development of the share price is the firm's ability to deliver on targets and improve its growth prospects, which becomes possible due to the increased focus on Arjo's core business. Furthermore, Stentoft (2019) acknowledges that Arjo is no longer distracted by activities within unrelated business areas, affecting the shareholder wealth effects positively.

In relation to the above arguments, Gibson (2019) means that there is a general demand among investors for corporate focus. When a firm wants to increase its corporate focus, it may do so in order to improve its business with competitive advantages, leading to both incremental impacts on fundamental as well as stock performance. He strongly believes that Arjo's ability to solely focus on divisions with competitive advantage has been an underlying value driver for the positive shareholder wealth effects. Lykke (2019) also finds that the increase in corporate focus has had a positive effect on the shareholder return. She further suggests that investors are willing to pay for performance and that focused companies generally perform better, implying that corporate focus can facilitate higher shareholder wealth effects.

Table 9 summarizes the key findings in relation to corporate focus and its consequences on economic benefits and shareholder wealth effects. As can be seen, the increased focus after the spin-off has led to various economic benefits for Arjo. Firstly, Arjo's chances of generating economic benefits as a standalone firm have possibly increased as the firm can take advantage of resources that generate competitive advantages. Secondly, the spin-off has led to an opportunity for Arjo to solely focus on customers that are closer to their core business, leading to an increase in competitive and financial benefits. Thirdly, the rebuilding of functions by hiring many new employees with desirable knowledge after the spin-off has further increased the economic benefits through skills and labor. Fourthly, the possibilities of R&D paybacks have improved subsequent the spin-off due to a decrease in diversity of resources, leading to improved efficiency and thus, economic benefits. Lastly, the restructuring of the firm around its core business in order to customize the operating model for the purpose of the firm has further enhanced the economic benefits due to improved efficiency. However, the spin-off has also implied reduced synergies and economic benefits, due to reduced negotiation power and limited multiple supplier contracts in tender processes and sales discussions.

The majority of the key findings together with the positive effects on economic benefits are suggested to have had a direct positive impact on the shareholder wealth effects. The various positive effects from corporate focus lead to improved growth prospects, abilities to deliver on targets as well as less distraction by activities within unrelated business areas. Such improvements most likely increase the share price due to its appreciation from the external market. However, it is not evident that the finding related to reduced negotiation power in tender processes and sales discussion has affected the shareholder wealth effects.

Key Findings	Effects on Economic Benefits	Underlying Value Driver for Shareholder Wealth Effects
Increased ability in taking advantage of resources which generate competitive advantages	Positive	Yes
Opportunity to solely focus on customers closer to its core business	Positive	Yes
Reduced negotiation power and limited multiple supplier contracts during tender processes and sales discussions	Negative	Not evident
Rebuilding of all functions after the spin-off implying desirable skills and labor within its core business	Positive	Yes
Increased possibilities of R&D paybacks due to decreased diversity in resources	Positive	Yes
Restructuring around its core business, improving the firm's efficiency	Positive	Yes

Table 9. Summary of Empirical Findings Related to Corporate Focus

6.4 Summary of Empirical Findings

Table 10 summarizes the key findings for all three factors investigated. As not all aspects within information asymmetry regarding firm valuation and managerial incentives seem to have had a direct impact on the shareholder wealth effects, this factor can only potentially be an underlying value driver for the positive development of the share. As for capital allocation, it is not evident whether this value driver has affected the share return, as it is suggested that such improvements may not have benefitted the firm or its shareholder yet, due to the time required for it to have a noticeable impact. However, the increase in corporate focus is suggested to be an underlying value driver for the shareholder wealth effects, due to improved growth prospects, abilities to deliver on targets as well as no distraction by activities within unrelated business areas.

Theory	Factor	Key Findings	Underlying Value Driver for Shareholder Wealth Effects
Agency Theory	Information Asymmetry	Lower information asymmetry due to more detailed information, consistency in delivering on communicated targets and better possibilities in estimating the firm value. The lower information asymmetry has improved efficiency and motivation for managers, leading to lower agency problems and costs	Possibly
Transaction Cost Theory	Capital Allocation	Lower transaction costs due to facilitated and improved capital allocation through transparent organizational structure, clearer view of divisions' opportunities and increased engagement	Not evident
Resource-based View	Corporate Focus	Positive effects on economic benefits due to; increased ability in taking advantage of resources, an opportunity to focus on important customers, more desirable skills and labor, increased possibilities of R&D paybacks, and restructuring of the organization	Yes

Table 10. Summary of Empirical Findings

7 Discussion

The following chapter will discuss the results from *chapter 6* and its relation to the findings of previous research. The discussion will include potential implications regarding investment practice for investors as well as business practice for firms that are considering performing a spin-off. At the end of the chapter, other value drivers than the ones investigated in this thesis will be discussed briefly, which is followed by the authors' general reflections of the findings.

7.1 Value Drivers of Shareholder Wealth Effects

In this section, the study's findings will be compared to the findings of previous research. The section is divided into the three factors which this thesis focuses on; information asymmetry, capital allocation, and corporate focus. The purpose is to understand the uniqueness as well as complementation of the findings in this thesis to existing academic literature. Furthermore, a discussion of the implications will be made in order to improve the understanding of and deepen the results.

7.1.1 Information Asymmetry

Firm Valuation

The results of this thesis show that a decrease in information asymmetry following the spin-off of Arjo is possibly a factor that can explain the positive development of the share. The results can therefore be seen as being aligned with those of Habib et al. (1997), who suggest that spin-offs can lead to decreased information asymmetry and thereby improved firm valuation. They argue that a spin-off will lead to an increase in the number of securities traded on the market, creating a more informative price system and improving the firm valuation. This could potentially be applied to the case of the Arjo spin-off as well, where a more informative price system helped analysts and investors value the firm more accurately, and thus, possibly increased the wealth effects for shareholders. However, Habib et al. (1997) further suggest that an eventual undervaluation is explored and corrected through the improved valuation. This thesis is unable to find such evidence, suggesting that the spun-off unit does not necessarily need to be undervalued before the spin-off. Instead, the spin-off might reveal the true prospects of the new firm, leading to improved firm value.

Furthermore, the results of this thesis can be seen to be aligned with those by Krishnaswami and Subramaniam (1999), who find that the accuracy of valuation is improved significantly subsequent to spin-offs due to lower information asymmetry. The firm value of Arjo has improved as a result of the decrease in information asymmetry on various aspects and thereby improving the strength and validity of similar previous findings.

On the other hand, the results can be seen to contradict with those of Veld and Veld-Merkoulova (2009) and Sudarsanam and Qian (2007), who do not find that lower information asymmetry is an underlying value driver of shareholder wealth effects following spin-offs in the European market. The contradicting results of these studies suggest that the factor of information asymmetry may not always be appropriate to consider for firms that aim to improve shareholder wealth effects through spin-offs.

Regarding implications for firms, the results suggest that conglomerates always should spin-off divisions, as it would increase the detailed information transmitted to managers and uninformed investors, leading to improved firm valuation. This implication is however incorrect, as it ignores the costs attached to a spin-off. On the other hand, it is correct to assume that excessive diversification destroys firm value, as it may affect the performance of certain divisions negatively. Firm management should therefore consider spinning off divisions that may perform better or be valued differently as standalone firms.

The greater access to information of the spun-off firms following spin-offs implies that previously uninformed investors can assess the performance and prospects of these firms more accurately. Such a shift reduces the risks of valuing the firms incorrectly. As this may reveal attractive investments and increase share return, investors could alternatively be actively seeking for spin-offs during investment decisions. Furthermore, it appears to be of great value for investors to hold on to stocks in the spun-off unit if the belief exists for the division to perform better on its own.

Managerial Incentives

According to the results of the thesis, the lower information asymmetry following the spin-off of Arjo has positively affected managers motivation to act align with the interests of shareholders. This has led to improved managerial efficiency and possibly an increase in shareholder wealth effects. The results are aligned with those of Comment and Jarrell (1995) and Aron (1991), who argue that spin-offs lead to more effectively incentivized managers. Furthermore, Daley et al. (1997) argue that the spin-offs create an ability for more effective managerial incentive plans, which might not have been possible when the firm was a part of a larger group. As a result, firm performance and value may increase. This is also aligned with the results of this thesis, where Arjo's newly initiated managerial incentive plans motivate the management to strive to achieve targets and to act align with shareholders' interests. As such, investors become confident in the firm's prospects, leading to an increase in demand for the share which stimulates the share return. Consequently, it can be argued that the lower information asymmetry gives access to greater information and facilitates more efficient incentive plans in the spun-off company.

The results of this thesis do not strengthen those of Seward and Walsh (1996), who suggest no statistically significant relationship between the gains around spin-offs and improvements in contracting efficiency for management. The differing results indicate that it may not consistently be correct to increase shareholder wealth effects by considering efficiency in incentivizing and motivating management through spin-offs.

For business practice, the results imply that if a division is underperforming relative to other divisions within the parent firm, then spinning off that division may be a way to pass it on to more well-suited and motivated management. New and effective management may be more likely to increase the firm value and shareholder wealth effects since the firm performance is likely to be driven into its desired direction. The increase in managerial efficiency also affects the market's interpretation of their performance, possibly making it easier for investors to recognize the attractiveness of the investment.

Another implication of the results can be seen in the light of incentive plans. Within a larger firm, divisional managers typically have limited decision rights, which increase if the division is spun-off. A spin-off provides an opportunity to more effectively motivate the management with various incentive plans, potentially directly or indirectly connected to the share price. As this can affect the performance and prospects of the division, firms should consider a spin-off as an alternative to improve managerial contracting and to increase shareholder value.

Regarding implications for investors, it is of relevance to consider the effects of their observations on the spun-off firms' performance. When a division is spun-off, it is easier for investors to monitor the new firm's actions, leading to pressure on the management to perform align with the interests of shareholders. Such transformation reassures investors that the management will aim to increase firm performance, potentially making the firm a valuable investment. More effective incentive plans may also achieve such effects following a spin-off. As the supervision and effective incentive plans will most likely have a positive effect on share performance, the spun-off units will turn into an attractive investment, indicating the relevance in owning shares in the spun-off unit. Moreover, the results also imply that if investors believe the spin-off will improve efficiency and motivation of the new management, passive investors should keep the shares in the subsidiary, while active investors should consider investing in such subsidiaries when spun-off.

7.1.2 Capital Allocation

In contrast to the results regarding information asymmetry, the authors are unable to secure a relationship between the improvements in capital allocation and growth in shareholder wealth effects. Thus, the results are not aligned with most of the academic papers presented in the literature review in *chapter 3*.

Both Burch and Nanda (2003) and Ahn and Denis (2004) find that inefficient capital allocation strategies lead to an undervaluation of the subsidiary before the spin-off. Improvements in capital allocation after the event results in enhanced firm value. As can be seen in the case of Arjo, the spin-off has facilitated improvements in the capital allocation process. This is due to better communication across the firm regarding the desired direction, resolution of previous issues and a clearer view of how to allocate capital between divisions according to specific needs. However, the conflicting arguments regarding its effect on shareholder return complicate to distinguish a relationship. It is suggested that the improvements may not have benefitted the firm or its shareholder yet, as it generally takes time for allocated capital to make a return. This questions if the improvements in capital allocation and its effects on shareholder wealth are affected by firm-specific characteristics, such as industry or market. These may affect the pace of the outcome from better capital allocation. Furthermore, it questions whether the capital allocation is a decent factor to consider when investigating up to 16 months subsequent to the spin-off.

However, the findings of this study complement those of Rajan et al. (2000), Scharfstein and Stein (2000) as well as Berger and Ofek (1995) to some extent. Their findings suggest that the more diversified a firm is, the less efficient internal capital market and lower firm value, where such aspects can improve through a spin-off. In the case of the Arjo spin-off, the authors find signs of inefficient capital allocation within the Getinge group before the spin-off, where Arjo suffered from underinvestment. Since the capital allocation in Arjo has improved after the spin-off, the results are aligned regarding this aspect. However, the results are not aligned regarding the low firm value of Getinge before the spin-off, nor improvements in the firms' value afterward due to enhanced capital allocation.

Despite a few results being aligned with previous research, implications still exist for business practice. The fact that the results indicate significant improvements in capital allocation processes within Arjo following the spin-off is consistent with the view that diversification likely leads to less efficient allocations. By spinning off a division, the separate division can choose allocation policies that are more suitable for its growth objectives and opportunities without any constraints from the parent company. This can in turn lead to the mitigation of previous underinvestment problems for the unit within the diversified group. Therefore, divisions that experience such issues should promote spin-offs as a solution, creating an increased opportunity to prioritize capital towards areas that facilitate the achievements of long-term goals. This also implies that if a division is underperforming or have different growth prospects from the rest of the firm, a spin-off may be a way to increase the opportunities for those divisions.

Further business practice implication is the importance of corporate culture for the spun-off firms. After a spin-off, the new firm is entirely free to implement its own culture, where it is the tasks of the CEO to communicate important aspects of the new culture to employees across the firm in order for it to be incorporated. The Arjo spin-off has led to increased opportunities of explaining the desired direction of the firm and thereby resulting in employees placing attention on the right aspects. This can be traced to the strong culture and engagement across Arjo, where capital is allocated aligned with the desired direction. Thus, divisions that become standalone firms need to consider how to form their corporate culture, as this can result in a significant impact on improvements in capital allocation and possibly firm performance.

Another implication for business practice refers to the incorrect assumption of loss in the internal capital market when separating a division from a diversified group. Firm management needs to examine whether the to-be spun-off unit can provide for itself before acknowledging the relevance of an internal capital market through diversification. If the division is a cash generative business, it may still perform better as a standalone firm, promoting the parent firm to perform the spin-off.

As for implications for investment practice for investors, it is of importance to analyze the capital allocation processes within the parent firm. If one believes the spin-off will create better opportunities for the new firm to exploit and allocate its resources where they can make the most significant impact, investors in the parent firm should consider keeping their shares in the spun-off firm. The underlying reason refers to the large potential impact on performance and growth prospects for the division. It can also be relevant for active investors to consider investing in such divisions due to their bright future. However, it is worth mentioning that the results in this study indicate that improvements in capital allocation may not influence the shareholder wealth effects 16 months after the spin-off event. Instead, such improvements may have an impact in the future. Therefore, the investments may be profitable due to better capital allocation for those investors with a longer investment perspective.

7.1.3 Corporate Focus

It is evident from the results that the spin-off of Arjo has had positive effects on shareholder wealth effects as it has enabled the firm to focus on its core business. Correspondingly, previous research also finds such evidence, where the increased focus on core business activities is suggested to explain the increase in share return.

The results are aligned with those of Berger and Ofek (1995), who argue that negative synergies and inefficiencies occur between the parent firm and the business unit when the two parties operate in unrelated businesses. As Arjo's business area differentiated from those of Getinge, various negative synergies could be diminished through the spin-off, leading to an increase in shareholder wealth effects. Moreover, the results complement those of Daley et al. (1997) and Desai and Jain (1999), who suggest that a focus-increasing spin-off leads to significant positive stock returns for the subsidiary. An explanation is the previous unfit of managerial skills in managing activities outside of the firm's core business, which the findings of this thesis validate.

However, the results of this thesis also emphasize such inefficiencies for the rest of the employees in the organization, thereby expanding the results of previous studies.

Despite strong indications of a positive relationship between increased corporate focus and effects on shareholder wealth following spin-offs, Veld and Veld-Merkoulova (2004) find no significance in such investigations in the European market. This questions what may affect the outcome of the results. It could be argued that an increase in focus only makes sense if the spun-off firm has an adequate core business for it to sustain as a separate entity, as the spin-off would otherwise result in competitive and operating issues. As Arjo was well established as a standalone company before Getinge acquired the firm in 1995, the probability was high for it to succeed after the spin-off.

For business practice, the results generally imply that the corporate policies of large diversified firms are imposed by its core business. However, a spin-off enables the new firm to implement its optimal policies relevant to its core business. Thus, divisions that are more distant to the core business of the parent firm should most likely become separate entities, as this will enable it to deliver on targets due to no distraction of unrelated activities within the group. Taken together, it is of importance for management to realize the effects of a decrease in diversity of resources on firm efficiency and performance. As the increased focus will facilitate an understanding of how to drive growth by knowing which products to focus on, firms should consider focus-increasing spin-offs as an alternative to improve shareholder value.

Additionally, the results indicate the importance for firms to understand the strategic fit between internal resources. If the fit is insufficient, the unrelated division is most likely better off as a separated firm and thereby focusing on those aspects which are important for the firm in question. This will increase its ability to taking advantage of resources that generate competitive advantages, resulting in stronger performance and improvements in shareholder wealth effects. However, it is important to consider whether the benefits of the spin-off outweigh the potential loss in synergies between the divisions and the rest of the parent firm.

In terms of investment practice, the results indicate various implications for investors as well. As the findings imply that corporate focus is value creating when the spun-off company's business is unrelated, investors should consider investing in spin-offs when a division is dissimilar to the rest of the parent firm. However, it is vital for investors to evaluate whether the division will be able to perform on its own, as such criteria is crucial for a positive development of the share. If true, the spin-off will most likely reveal an attractive investment, indicating the relevance of considering the new firm in investment decisions.

Lastly, the increase in risk for the spun-off firm is important to recognize for both firms and investors. When a division becomes separated from the parent firm, it can no longer benefit from the advantages of operating several business lines within one firm, such as reduced business risk. Thus, the new firm is less diversified and more dependent on its own core business. Whether the increase in business risk is higher than the benefits from focusing on core business is up to the firm management and its investors to analyze.

7.2 Other Factors

In the literature search in *chapter 3*, the authors found other factors that can explain the shareholder wealth effects following spin-offs than the ones investigated. These will be discussed briefly in the following section. The factors which will be touched upon are investor attitude, tax and regulations, and takeover activity.

According to the interviews, neither tax and regulations or takeover activity were a concern when Arjo was spun-off. Firstly, spin-offs in Sweden are not taxable events, implying that firms do not need to consider any legal aspects or restructuring of the firm before the spin-off in order to avoid tax leakage (Gibson, 2019). This is aligned with the results of Veld and Veld-Merkoulova (2004), who argue that spin-offs in Europe are not generally motivated by tax issues or regulations. Secondly, Arjo's main owner has no intention of selling his shares in the future (Stentoft, 2019). This creates comfort for the management and employees as well as shareholders, rather than pressuring those involved to prevent a takeover from happening. However, this contradicts with the results of Chemmanur and Yan (2004), who mean that the source of the gains following a spin-off arises from disciplining effects on firm management since the spin-off increase the probability of loss of control for the management through a takeover. This suggests that an increase in discipline on management post-spin-off is not necessarily due to a higher probability of loss of control. Taken together, these two factors have most likely not affected the shareholder wealth effects after the Arjo spin-off. However, such factors may still be of importance to consider for both investors and firms in other contexts when a spin-off becomes relevant, as it can affect the outcome of the shareholder wealth effects.

When it comes to investor attitudes, the situation changes slightly. Investors attitudes and appetites for spin-offs change over time, indicating that spin-offs may better received by the market when the demand is higher for pure-play companies than conglomerates. Today, spin-offs seem to be a trend due to a general demand among investors for corporate focus (Sjöswärd, 2019; Gibson, 2019). The spin-off of Arjo was first received with skepticism regarding Arjo's ability to perform, resulting from the earlier poor performance within the Getinge group together with insufficient knowledge about the business (Lindoff, 2019; Gibson, 2019). However, when the firm turned around its performance for the first time in five years in the first quarter as a standalone firm, the share price increased significantly. This indicates that the investors' appetites for pure-play firms in certain periods and its effects on shareholder wealth may not be fully applicable to the case of Arjo. Rather, the improved performance convinced outside stakeholders that Arjo could be an attractive investment. Thus, the results do not support those of Sudarsanam and Qian (2007). Instead, the arguments imply that firms that are considering performing a spin-off need to convince shareholders about its prospects and should not solely rely on the existing demand for pure-play business models. As for investors, it is important to understand the growth and profitability possibilities for the spun-off firms, since this might be an indicator of the success of the spin-off and effects on share return.

7.3 Reflections

The results of the investigated research question provide complementation to academic papers within the spin-off research area. Some general aspects than the one discussed are however still important to consider when looking at shareholder wealth effects through spin-offs as well as its underlying value drivers.

Firstly, the investigated underlying value drivers are assessed individually. However, the factors may affect each other, where the shareholder wealth effects might not be fully explained by solely one or the other. It can be assumed that improvements in capital allocation are a consequence of increased corporate focus, where the new firm is not distracted by unrelated businesses, resulting in an allocation of resources towards core business activities. This in turn may be affected by less information asymmetry across the firm as well as increased managerial efficiency, questioning each factor's contribution to the increase in share return.

Furthermore, as can be understood from the results, the effects on shareholder wealth seem to be dependent on overall firm performance. This indicates that whatever factor that increases firm performance may be an underlying value driver for the shareholder wealth effects since the Arjo spin-off. Thus, it is not evident whether there are other value drivers than the ones investigated in this thesis.

Additionally, it is relevant to consider the relatively short time horizon investigated when interpreting the findings. Previous research defines an investigated period between 6 to 36 months for spin-offs as long-term. With less than one and a half years since the listing of the firm, the sources of the effects on shareholder wealth might be affected by the shorter time horizon. The effects in later periods might be a cause of additional or different underlying value drivers than the ones this thesis focuses on.

Finally, one must remember that each spin-off is unique and not all spin-offs are successful. The success of a spin-off in generating shareholder value varies for each individual case, where factors affecting the outcome can be sample-specific. For instance, both industry-, geographic- and firm-specific characteristics may influence the findings. As for the case of Arjo, the medical device industry has performed well in recent years, potentially also affecting the outcome of the results. As such, managers of diversified firms should always evaluate whether their divisions would obtain its optimal value as independent firms in their industries, or if the business provides more benefits within the firm. Similarly, it is important for investors to examine the particulars of a specific spin-off situation, before deciding to keep, sell or buy shares in the new firm. Due to these aspects, it would be inappropriate to generalize the findings of the thesis to all spin-off events.

8 Conclusion

In this thesis, the authors investigate the underlying value drivers which might explain the shareholder wealth effects following the spin-off of a firm active in the medical device industry, namely Arjo. Previous research mainly focuses on the perspective of the parent firm, while the evidence for the spun-off unit remains unclear.

To be able to answer the research question, this study examines the three most commonly investigated value drivers of shareholder wealth effects. The first value-driver relates to information asymmetry and its ability to explain the shareholder wealth effects following the spin-off of Arjo. The findings can be seen to confirm those of previous research, as the authors conclude that a decrease in information asymmetry following the spin-off of Arjo is possibly a factor that can explain the increase in shareholder wealth. The main reasons are attributed to the improved opportunity of estimating the true prospects of the firm and an increased managerial efficiency. The results may imply that firm management should consider spinning off divisions that can perform better or be valued differently as standalone firms. The new firm's management may be more well-suited to drive the company into its desired direction, possibly improving firm performance. This may reveal an attractive investment, indicating the importance of considering the spun-off unit in investment decisions.

The second value driver refers to improved capital allocation and its influence on shareholder wealth effects subsequent to the spin-off. In contrast to other academic papers, the authors are unable to secure such a relationship. Arguments suggest improvements in capital allocation after the spin-off of Arjo, however, these may not have benefitted the firm or its shareholder yet as it generally requires time for allocated capital to generate a return. The authors therefore conclude that capital allocation may not always be an appropriate value driver to consider when investigating spin-off gains. Moreover, the findings are analyzed by applying the transaction cost theory. The results indicate that the transaction costs have most likely been lowered after the spin-off due to efficiency improvements in capital allocation within Arjo. According to the theory, lower transaction costs should affect firm value and the shareholder wealth effects positively. As this study finds no such evidence, the ability for the transaction cost theory to explain shareholder wealth effects following spin-offs is questioned.

The third value driver of shareholder wealth effects is corporate focus. The findings confirm those of previous research, where the increased corporate focus has had a positive impact on the shareholder wealth effects after the spin-off of Arjo. Underlying reasons include a reduction in negative synergies due to an increased ability to focus on important customers and resources closer to the firm's core business. The authors therefore conclude that increased corporate focus is a factor that can explain shareholder wealth effects. This implies that firms should consider focus-increasing spin-offs as an alternative to improve shareholder value, as the increased focus will facilitate an understanding of how to drive firm growth. Also, investors should consider investing in spun-off firms when the division is unrelated to the core business of the parent firm, as this can increase share return.

Despite the inability of finding a relationship between capital allocation and increased shareholder wealth effects, the findings of the thesis provide a possible explanation for why reduced information asymmetry and enhanced corporate focus are associated with the gains from spin-offs. The findings of information asymmetry and corporate focus as underlying value drivers may not be particularly surprising. Firstly, the transparency of firms is generally appreciated by external stakeholders as this will improve the understanding of the business, implying that such achievement will most likely be received positively. Secondly, an increase in focus may enable the firm to focus on those aspects in which it has excellent skills. Also, due to the high demand among investors for corporate focus and pure-play business models, it is not unforeseen that such a shift will have positive effects.

As for capital allocation, the results are somewhat more surprising. The findings contradict with those of other academic papers, questioning what may affect the different outcomes. Also, the study finds no evidence of lower transaction costs affecting the firm value and shareholder wealth effects positively. Thus, it is surprising that the transaction cost theory seems not to be applicable to this setting, since the theory is suggested to be suitable in explaining positive wealth effects from spin-offs.

Lastly, it has become evident from the findings that Arjo is still a diversified firm with a broad portfolio in both the long-term care and acute care sector. Thus, it may be beneficial for Arjo to increase its corporate focus further going forward. This could facilitate enhancements in firm performance and improved growth opportunities, and thereby, increase the shareholder wealth effects in the future.

8.1 Contributions

This study contributes to the existing research in several ways. First, the findings reveal how a spin-off would create wealth effects for shareholders in the spun-off firm, thus contributing to implications for firms and investors from this perspective. Next, the study improves the understanding of such value creation by performing a qualitative research approach, deepening the analysis and further evaluating value drivers by applying those to a unique case. This has resulted in complementing and contradicting findings in relation to previous research. Additionally, the authors are the first to study spin-off wealth effects in the Nordic medical device market. Such contribution acknowledges which of the most common value drivers that can also be applied to this industry, revealing potential differences between the medical device industry and other industries regarding spin-offs.

More broadly, this study contributes by testing the applicability in a specific organizational context of theoretical frameworks developed in other spin-off studies. Evidently, both agency theory and resource-based view can be useful when analyzing shareholder wealth effects from spin-offs. However, the authors demonstrate weaknesses in using the transaction cost theory.

8.2 Suggestions for Further Research

At this point, there is a relatively broad body of research documenting empirical evidence of factors explaining wealth effects for shareholders following a spin-off. However, there are few investigations from the spun-off firm's perspective. Also, compared to the amount of research in initial public offerings, there are opportunities to acquire more evidence on spin-offs and spun-off firms.

This study is delimited to corporate spin-offs within the medical device industry in the Nordic countries, where the spin-off of Arjo is a unique case. Research can advantageously be extended to a multiple case study which would entail ease for statistical generalization and exclude case-specific inferences in the results. On the one hand, the multiple case study could be done by increasing the geographic investigation area, including for example European or U.S. spin-offs, still within the medical device industry. Thus, the industry-specific characteristics of shareholder wealth creation through spin-offs can be investigated, where the impact of differences in investor attitude, spin-off motives and legislation, as well as tax implications will be explored. The multiple case study could also be expanded to include other industries in the Nordic countries. As such, it can be advised to investigate spin-off characteristics specific for the Nordic countries, while also explore the similarities and differences between industries, where certain value drivers may be of greater importance in some industries than others.

Previous studies mainly investigate spin-offs from a quantitative perspective. However, it could be advised to investigate whether there are value drivers that better explains shareholder wealth effects when investigating the research question in a qualitative context. A multiple case study could further investigate such factors and possibly help with defining how the agency theory, transaction cost theory, and resource-based view can better approach the value drivers. By also aiming to capture less commonly investigated value drivers in a qualitative approach setting, the findings might reveal that other factors can better explain the shareholder wealth effects in some cases.

Furthermore, the investigation period for the Arjo spin-off is restricted due to a limited time since the spin-off, where a similar study with a more extended period subsequent to the event might assess the sources to value creation more effectively. For instance, the inability to find any evidence for capital allocation as a value driver for shareholder wealth effects questions whether a longer time horizon would facilitate to find such a relationship. Moreover, a longer time horizon would enable to investigate whether spun-off firms can maintain the operations and efficiencies following a spin-off.

Today, there is still a significant number of large conglomerates consisting of many unrelated divisions. At the same time, research consistently shows that corporate focus is associated with high positive abnormal returns and efficiency improvements. This raises the final and probably most interesting suggestion for future research: why are conglomerates with unrelated divisions still in one piece?

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10 Appendix

Appendix 1. Interview Guide: Joacim Lindoff

Q: Can you tell us a bit about your current role at Arjo and your involvement in the spin-off?

Q: What were the main motives behind the spin-off?

Q: What were the hopes and expectations with the spin-off regarding shareholder wealth?

Q: How would you describe the development of the Arjo share since the spin-off?

Q: What do you think are the underlying reasons for this?

The remaining questions will focus on potential sources that could explain the development of the Arjo share.

Q: Was there a difference in growth prospects between Getinge and the Arjo-division before the spin-off?

Q: Has the decrease in internal capital market, i.e. less access to capital and resources across the Getinge Group, affected Arjo after the spin-off?

Q: Would you say that Arjo as a standalone firm has created a clearer view of divison's individual opportunities, where resources are allocated accordingly?

Q: How do you believe that a potential efficiency in resource allocation and clearer view of division's individual opportunities has affected the development of the Arjo share?

Q: After a spin-off, the spin-off unit becomes less complex and less diversified, which can facilitate stakeholders' insight into the efficiency of the management. How do you think that this has affected the management of Arjo in terms of motivation and efficiency?

Q: Has the management increased its own investments in Arjo after the spin-off?

Q: Did the management have their compensation linked to the stock performance before the spin-off in the Getinge group? Do they have it now?

Q: If yes, what do you think the consequences are of this in terms e.g. working more efficiently or more incentivized to focus on what increases stock price?

Q: In some cases, spun-off companies experience the risk of a takeover activity by another company after a spin-off. Has this been a concern for Arjo and how do you think such risk affects the management in terms of motivation and efficiency?

Q: How do you believe that potential visibility into management's work, increased management's investment, and compensation linked to stock performance have affected the development of the Arjo share

Appendix 2. Interview Guide: Colin Gibson

Q: Tell us a bit about your current role at Bestinver and your insight in the Arjo spin-off.

Q: Do you have a perception of how the Arjo spin-off generally was received by investors?

Q: What were your hopes and expectations with the spin-off regarding shareholder wealth?

Q: How would you describe the development of the Getinge share since the spin-off?

Q: How would you describe the development of the Arjo share since the spin-off?

Q: What do you think are the underlying reasons for this?

The remaining questions will focus on potential sources that could explain the development of the Arjo share.

Q: After a spin-off, firms become less complex and less diversified. How do you think this has affected the visibility of Arjo's performance and the company as a whole for analysts and investors?

Q: Diversified firms are often valued lower relative to the sum of the standalone values of all business units. When separating Arjo, do you believe that the value of the new firm can be estimated more accurately?

Q: How do you believe that this has affected the development of the Arjo share?

Q: What is your perception of Arjo's ability to create investor relationships?

Q: Would you say that the spin-off has affected Arjo's possibilities in acting align with the interests of its investors?

Q: Have you experienced a situation where Arjo could not act in the shareholder's interests?

Q: Would you say that a spin-off makes it easier to observe the performance and actions of management compared to before?

Q: How do you believe that this has affected the development of the Arjo share?

Q: In various reports from Arjo, one of the motives for the spin-off was to improve focus on divisions with competitive advantages. Would you say that there is a general demand among investors for corporate focus through spin-offs?

Q: In what way do you think that a focus on divisions with competitive advantages has affected the stock performance of Arjo?

Appendix 3. Interview Guide: Christian Stentoft

Q: Tell us a bit about your current role at Arjo as well as your involvement in the spin-off.

Q: How would you describe the development of the Arjo share since the spin-off?

Q: What do you think are the underlying reasons for this?

The remaining questions will focus on potential sources that could explain the development of the Arjo share.

Q: Can you briefly tell us about the differences and similarities in the product portfolios of Getinge and Arjo, as well as their respective industries?

Q: Did the spin-off create an opportunity to focus more on products which are important for Arjo compared to before, i.e. closer to the core business of the company?

Q: How would you describe the relatedness in knowledge regarding products and customers in the Arjo-division and the rest of Getinge?

Q: How do you believe that the focus on Arjo products and the separation of related/unrelated products in Getinge have affected the development of the Arjo share?

Q: Was there a difference in growth prospects between Getinge and the Arjo-division before the spin-off?

Q: Could you briefly tell us about the processes of resource allocation in the Getinge group before the spin-off? (Resource allocation refers to how it works when a department asks for resources to a project)

Q: Has the resource allocation changed in Arjo after the spin-off?

Q: Would you say that Arjo as a standalone firm has created a clearer view of divison's individual opportunities, where resources are allocated accordingly?

Q: Has the decrease in internal capital market, i.e. less access to capital and resources across the Getinge Group, affected Arjo after the spin-off?

Q: How do you believe that the potential change in resource allocation has affected the development of the Arjo share?

Appendix 4. Interview Guide: Niclas Sjöswärd

Q: Tell us a bit about your current role at Getinge as well as your involvement in the spin-off of Arjo.

Q: What were the main motives behind the spin-off?

Q: How would you describe the development of the Getinge share since the spin-off?

Q: How would you describe the development of the Arjo share since the spin-off?

Q: What do you think are the underlying reasons for this?

The remaining questions will focus on potential sources that could explain the development of the Arjo share.

Q: Was there a difference in growth prospects between Getinge and the Arjo-division before the spin-off?

Q: Could you briefly tell us about the processes of resource allocation in the Getinge group before the spin-off? (Resource allocation refers to how it works when a department asks for resources to a project)

Q: Can you briefly tell us about the differences and similarities in the product portfolios of Getinge and Arjo, as well as their respective industries?

Q: Did the spin-off create an opportunity to focus more on products which are important for Getinge and Arjo compared to before, i.e. closer to the core business of the company?

Q: How would you describe the relatedness in knowledge regarding products and customers in the Arjo-division and the rest of Getinge?

Q: After a spin-off, both the new firm and parent firm become less complex and less diversified. How do you think this has affected the visibility of Arjo's and Getinge's performance for analysts and investors?

Q: When separating Arjo from Getinge, do you believe that the value of the two firms can be estimated more accurately due to transparency for analysts and investors?

Q: How do you believe that this has affected the development of the Arjo share?

Appendix 5. Interview Guide: Annette Lykke

Q: Tell us a bit about your current role at Handelsbanken and your involvement in the spin-off of Arjo.

Q: Have you been engaged in spin-offs before, and how did it differ from this one?

Q: Would you say that it is common with corporate spin-offs in the medical device industry and in the Nordic countries?

Q: Do you have a perception of how the Arjo spin-off generally was received by analysts and investors?

Q: What were the hopes and expectations with the spin-off regarding shareholder wealth?

Q: How would you describe the development of the Arjo share since the spin-off?

Q: What do you think are the underlying reasons for this?

Q: What would you say differs Arjo from other players in the industry?

Q: Do you know any market index which is good to use when comparing the share performance of Arjo? E.g. to see abnormal returns

The remaining questions will focus on potential sources that could explain the development of the Arjo share.

Q: After a spin-off, firms become less complex and less diversified. How do you think this has affected the visibility of Arjo's performance and the company as a whole for analysts and investors?

Q: Diversified firms are often valued lower relative to the sum of the standalone values of all business units. Do you think that Arjo, as a part of Getinge, was valued incorrectly as a division?

Q: When separating Arjo, do you believe that the value of the new firm can be estimated more accurately due to transparency for analysts and investors?

Q: How do you believe that this has affected the development of the Arjo share?

Q: Would you say that a spin-off makes it easier to observe the performance and actions of management compared to before?

Q: How do you believe that this has affected the development of the Arjo share?

Q: In various reports from Arjo, one of the motives for the spin-off was to improve focus on divisions with competitive advantages. Would you say that there is a general demand among investors for corporate focus through spin-offs?

Q: In what way do you think that the focus on divisions with competitive advantages has affected the stock performance of Arjo?

Appendix 6. Interview Memo: Joacim Lindoff

Date: March 20th, 2019
Interviewee: Joacim Lindoff (President & CEO, Arjo)
Interviewer(s): Sofia Casserlöv & Alexandra Wiklund

Case company and spin-off information

- The Arjo share has been a strong performer and increased significantly since the spin-off.
- The development of the share is extremely linked to the performance of the firm and delivering on the promised performance
- The management of Arjo has initiated *Arjo 2020*, a mid-term performance plan, with aim at turning the company to profitable growth and fulfill short-term financial targets

Information asymmetry

- Before the spin-off, shareholders did not properly understand the business, where the market only saw a poorly performing unit.
- When Arjo started to execute on plans and grew the first quarters, the share increased significantly.
- Despite improvements in valuation possibilities and understanding the Arjo business since the spin-off, a large community still have difficulties in getting clarity of the firm's prospects and long-term abilities.
- After the spin-off, the vertical distance shrunk significantly between employees and management. The more horizontal structure has enabled more direct implications of decisions and performance, and employees and management feel that their work and achievements have an impact.
- The smaller size of Arjo enables a more direct link between actions and effect on shareholder wealth.
- The Arjo management team is well aware of the observation from the external market on their actions and performance, which has led to an increase in their motivation since the spin-off. The increased employee engagement has also led to a higher commitment in reaching set targets.
- The focus on performing aligned with external stakeholder's expectations was not as present before the spin-off, due to the firm being part of a larger organization.

<u>Managerial incentives</u>

- Arjo initiated three managerial incentive programs after the spin-off:
  1. Short-term incentive program (STIP):
     - Before the spin-off, the managers had their STIP linked to financial numbers within their department and this resulted in short-term decisions which sub optimized the financial numbers in each department rather than optimization of the whole firm
     - After the spin-off, STIP is linked to more relevant and influenceable targets aligned with the budget. It has no connection to the share price, which generates more sustainable growth for the share, as management is not focusing on maximizing short-term share performance.
  2. Long-term incentive program (LTIP):
     - A three-year incentive plan which is connected to financial performance and covers approximately 65 people in the extended leadership team (ELT) (incl. Arjo's management team).

   - The LTIP is indirectly connected to the share performance, as mangers are required to reinvest the taxed amount of the payoff from the program in Arjo shares until the investment is worth a full-year salary, independently of the share price.
   - For the ELT, except Arjo's management team, the LTIP is suggested to be the main motivator for Arjo's long-term performance.
3. Synthetic stock option program:
   - Motivated by Carl Bennet after the spin-off, with the intention to increase the direct commitment from management to increase shareholder wealth.
   - It is the most important program in terms of motivation for management.
   - The program enables large payoffs if the share price increases, while also run the risk for it to become worthless if the share price falls.
   - Act as an indirect factor for investors to dare to invest in Arjo.

- The incentives programs may not have fully had a direct impact on the share price yet.
- However, the programs have undoubtedly resulted in higher commitment, motivation and more efficient work processes.
- The development of the share in itself has been a motivator for the management, as it measures of how the outside market perceives the firm as well as the performance of the management.

Capital allocation

- At the point of the spin-off, the Arjo-division had showed declining growth for about 6 years, while the other parts of the Getinge group had grown
- Arjo is today driven in a completely different way than as a part of Getinge, where issues are now solved as a team, instead of analyzing of whose fault it was.
- The spin-off enabled more visibility of opportunities and better traction and understanding of how to allocate resources internally and externally.
- Improved resource allocation process due to increased engagement across the organization. The Arjo management have spent a lot of time making employees understand the business and the direction of the business. By articulating the desired direction of the company, and by providing strategies and tools to get there, employees can further break down the plans at various levels in the organization. Therefore, capital can be allocated aligned with the intended direction in an engaged manner, leading to increased possibilities for Arjo to achieve its goals.
- The improvements in capital allocation have affected the development of the Arjo share to some extent. If capital is allocated to areas that will help achieve communicated targets, there will be a significant impact on the share, since possible achievements have a great influence on how the Arjo share is perceived by external stakeholders.

Corporate focus

- The decision to spin-off Arjo from Getinge was mainly a focus decision.
- The focus towards the acute care sector within Getinge was not in line with Arjo's higher concentration on long-term care. Thus, Arjo could not take advantage of the resources available nor central competence in the Getinge group, as the businesses were too different.
- There were no synergies between R&D departments in Getinge, due to each department having their distinct R&D operations and budgets.
- The spin-off has enabled Arjo to improve the focus on its core business.
- With the One Getinge implementation, disorder emerged within the organization and Arjo obtained an even worse position than before, as they did no longer have their own business area. The various support functions of the departments were merged, except the R&D departments.
- Due to the merge of the support functions, many employees were effectively dismissed from roles which were not directly related to the core business, where departments such as marketing and sales suffered from the largest amount of dismissals.

- Many employees had previously left the organization as they did not believe in Arjo's prospects.
- When Lindoff took over as Acting President and CEO in Getinge in August 2016, the attention from the board of directors grew on finding a better solution for Arjo. Arjo as a part of Getinge was not a sustainable option
- The spin-off gave the management an opportunity to examine the business and provided transparency of how the firm should be revised.
- Improvements in Arjo's performance is highly correlated to the shift in focus, where a focus on core business generally increases the share price due to its appreciation from the external market.
- Arjo's increase in tactical focus has strongly affected the firm's turnaround in performance during 2018, where the performance is strongly linked to the development the share. Therefore, the main underlying value driver for the positive development of the share price is the firm's ability to deliver on targets and improve its growth prospects, which becomes possible due to the increased focus on Arjo's core business.
- The spin-off of Arjo was generally received with skepticism regarding the firm's ability to perform, resulting from the earlier poor performance within the Getinge group as well as insufficient knowledge about the business. However, when the firm turned around its performance for the first time in five years in the first quarters as a standalone firm, the share price increased significantly.

Other

- In the years before the spin-off, Getinge had become even more focused on the acute care sector. Organic and in-organic activities were directed to this product segment. This resulted in growth issues for the Arjo division.
- Underlying reason for Getinge's substantial decrease in shareholder wealth is several one-time hits on their P&L including compliance issues in Brazil and several other regulatory issues.
- Normally, the sending company leads a spin-off. It was the opposite in this case, where Arjo was driving the spin-off.
- Arjo's main owner, Carl Bennet was very engaged during the negotiations of the spin-off, where he clearly stated his intentions of keeping his shares in Arjo and possibly increase his ownership going forward.
- Arjo aims for an organic growth of two to four percent per year, a reported EBITDA growth of 10 percent and a cash conversion of over 70 percent annually.

Reply Reply All Forward IM

mån 2019-05-13 10:37

Joacim Lindoff

RE: Memo Lindoff.pdf

To Sofia Casserlöv

Hej Sofia!

Ser helt Ok ut, kör på.

Lycka till!
Joacim

Appendix 7. Interview Memo: Colin Gibson

Date: March 21st, 2019
Interviewee: Colin Gibson (Senior Equity Analyst, Bestinver)
Interviewer(s): Sofia Casserlöv & Alexandra Wiklund

Case company and spin-off information

- The Arjo share has been a strong performer and have increased significantly since the spin-off.
- The Arjo spin-off was generally received with skepticism. This was a result from the earlier poor performance within the Getinge group as well as insufficient knowledge about the business. However, when the firm in the first quarters turned around its performance for the first time in five years as a standalone firm, the share price increased significantly.

Information asymmetry

- After a spin-off, firms become less complex and less diversified, leading to improved visibility and understanding of the business.
- The Arjo spin-off enabled investors to become better equipped with information about the firm and its performance. When separating a division from a larger group, the availability of data increases.
- If the outside market envisions a great asset, the improved visibility will have a positive effect, while the opposite may be true if the spin-off reveals an unattractive asset base.
- When Arjo's main owner Carl Bennet was positive to the spin-off and decided to keep his shares, this worked as a positive signal towards other investors.
- Despite the signals from Carl Bennet's confidence in Arjo's future, the market did not necessarily perceive their relevance in the period around the spin-off. Instead, Arjo was by that time seen as an underperforming firm, with no apparent reasons to expect any improvements.
- When Arjo started to execute on plans and grew the first quarter, this changed the perception of the firm's opportunities in generating growth and profitability, but also how investors model the company, which might have affected the valuation possibilities for the market.
- The conglomerate discount of various business units is not a correct representation of the value of a diversified firm, where the valuation should instead be analyzed in the light of inefficient capital allocation.
- The visibility into the Arjo business, as part of the Getinge group, was insufficient and the spin-off improved investor's understanding of the management's efforts, generally leading to a positive effect on the Arjo share.
- The spin-off has created possibilities for Arjo to acting align with the interests of its investors.
- Arjo have a dedicated management and CEO that provide confidence to investors in its performance and prospects.

Capital allocation

- The spin-off created opportunities for Arjo to reinvest capital from a profitable business, which has affected the firm value positively.
- The spin-off created opportunities for Arjo to reinvest capital from the now profitable business and this has affected the firm value positively.
- Lower firm value is partly driven by inefficient capital allocation within diversified groups and this can destroy capital over time.
- If a firm is profitable and cash generative, but use these returns to build various complementary and inefficient businesses, the firm may run the risk of being exposed to a conglomerate discount.

- If a firm is unable to maintain a premium on its capital when expanding its business, the best strategy is to give back to shareholders.
- Companies should solely prioritize to allocate capital to those areas where they can make a return.
- The bureaucracy present in Getinge, and the costs that entails, affect firm value as the process of managing the allocation of capital typically means large overhead costs.
- When separating Arjo from Getinge, possibilities increased to reinvest capital in order to receive a higher return, affecting the Arjo share positively. Such improvements in capital allocation are aligned with the interest of the shareholders, leading to improvements in how investors perceive the company.

Corporate focus

- There is a general demand among investors for corporate focus.
- Arjo's ability to focus on divisions with competitive advantage has affected the stock performance a lot and is one of the underlying drivers for the share price increase. When managers see that focus can be improved for the division, they start to develop tools in order to improve the business with competitive advantage. That has an incremental impact on both fundamental performance and stock performance.

Other

- In Sweden, spin-offs are not taxable events, implying that firms do not need to consider any legal aspects or restructuring of the firm before the spin-off, in order to avoid tax leakage.
- Today, spin-offs seem to be a trend due to a general demand among investors for corporate focus

GD
Gibson, Colin David <colin.gibson@bestinver.es>
Mån 2019-05-06 14:17
Sofia Casserlöv

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Happy to confirm that the information here is correct. Good luck with the thesis!

Lyckoönskningar,

Colin Gibson
Senior Analyst

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acciona

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Appendix 8. Interview Memo: Christian Stentoft

Date: March 21st, 2019
Interviewee: Christian Stentoft (EVP Corporate Development & Projects, Arjo)
Interviewer(s): Sofia Casserlöv & Alexandra Wiklund

Case company and spin-off information

- As a part of Getinge, Arjo was the smaller division in terms of revenue and gross profit contribution. Arjo was generally not performing well, with declining EBIT for 4 years and no growth in 15 years
- Significant increase in share price since spin-off (close to 40%). Outperformed peers by 2.5 to 3 times.

Information asymmetry

- Before the spin-off, the market did not understand the business due to lack of full P&L breakdown and detailed financial statements.
- Spin-off enabled investors to become better equipped with information about the firm.
- The consistency in deliver on promises is the main underlying driver for the increase in shareholder wealth, signaling the health of the firm to investors. This have reduced information asymmetry.
- Carl Bennet is an engaged and loyal investor, which brings comfort to the shareholders.
- There was a general belief that Arjo would generate revenue growth during the first year as a standalone firm.
- Before the spin-off, management and employees did not focus on performing in align with external stakeholders' expectations.
- After the spin-off, motivation increased as Arjo was not part of a large group that did not prioritize the business.

Capital allocation

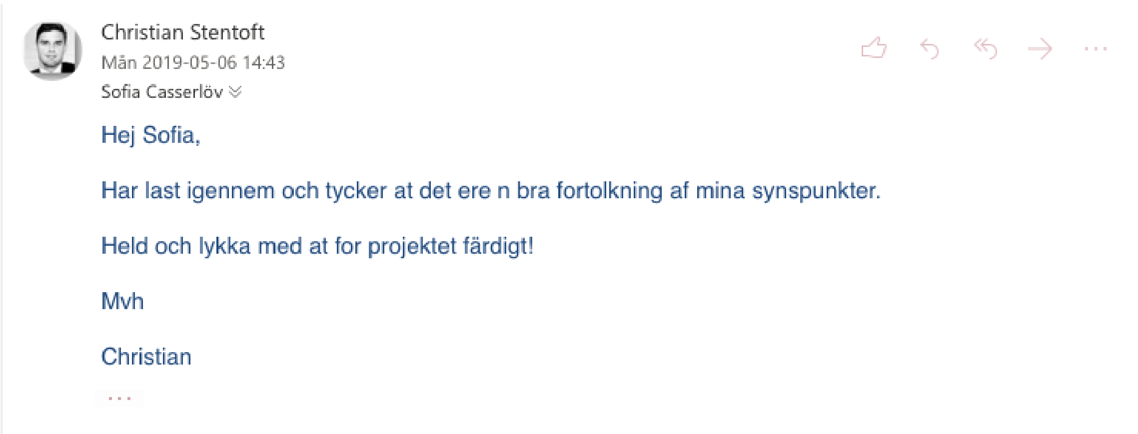
- Before the spin-off, Arjo did not grow at the same pace as the rest of the medical device market. Compared to the rest of the Getinge group, Arjo had low growth. Acute care therapies had the best growth prospects. Arjo is today growing in the same pace as the medical device market.
- Allocation of resources was, before the spin-off, directed to high profitability divisions, mainly towards complicated surgical equipment. Investments related to R&D and M&A were not in favor for Arjo. Arjo can now allocate generated returns solely into its own business, aside from what is given to shareholders.
- Resource allocation process followed a straightforward process in Getinge: the group CEO together with the business area CEO's discussed the resources needed. This process was not in favor of Arjo, leading to few additional resources being allocated to the division.
- The spin-off created a clearer view of individual divisions' opportunities, leading to more effective utilization of resources.
- The spin-off also pointed out issues, e.g. decline in one of Arjo's largest markets. This would not have been prioritized before, due to low importance.
- After the spin-off, capital allocation processes have improved. However, the effects have not benefitted shareholders or the firm yet, as it takes time to exploit this. It may instead completely transform Arjo in the future.
- Efficiency in operating model, clarity of the firm's purpose and prioritization to solving issues are the greatest underlying drivers of the positive share development.

Corporate focus

- Before the spin-off, Getinge became further focused towards the Acute Care Therapies business area, leading to less focus on Arjo's core business. The spin-off enabled Arjo to focus on products closer to its core business.
- The Arjo products were less sophisticated in terms of technological advancement relative to the other two departments. The Infection Control & Surgical Workflows department was in the middle of the spectrum.
- Arjo diverged from the other departments in terms of customers. However, the Getinge group offered synergies in form of a strong commercial brand and customer relationships.
- There were also synergies due to arrangements of large tenders, which included both firms' products. These synergies have reduced after the spin-off.
- Since Getinge and Arjo do not operate in businesses which are directly competing, cooperation still exists to some extent.
- There were few synergies within the support function in Getinge before the spin-off. Furthermore, due to the differences in complexity in products, customer focus and product range, there were very little synergies on any level between Arjo and Getinge.
- There was no clear purpose of the Arjo division. The group had conflicting customer base than the one Arjo was targeting, leading to few valuable paybacks of R&D investments.
- The spin-off created possibilities for Arjo to make valuable investments.
- One underlying driver of the increase in share price is the fact that Arjo is no longer distracted by unrelated projects and issues from other parts of Getinge.
- Arjo is still a conglomerate firm with a broad portfolio in both long-term and acute care sector.

Other

- Arjo's largest owner, Carl Bennet, has no intention of selling his shares in the future, creating comfort for the management, employees and shareholders rather than pressuring those involved to prevent this from happening.


Christian Stentoft
Mån 2019-05-06 14:43
Sofia Casserlöv

Hej Sofia,

Har last igennem och tycker at det ere n bra fortolkning af mina synspunkter.

Held och lykka med at for projektet färdigt!

Mvh

Christian

Appendix 9. Interview Memo: Niclas Sjöswärd

Date: March 28th, 2019
Interviewee: Niclas Sjöswärd (CFO Acute Care Therapies, Getinge)
Interviewer(s): Sofia Casserlöv & Alexandra Wiklund

General information

- The underlying reasons for Getinge's negative share development are issues related to Getinge's quality management system, regulatory issues, issues regarding feedback from FDA, litigation process in the US as well as other problems, which are not linked to the spin-off itself.

Information asymmetry

- The spin-off promoted an increased transparency of the firm, which has led to an increased possibility of accurate valuation by analysts and investors.

Capital allocation

- Arjo had several periods of negative growth and was not contributing to the group's overall profitability before the spin-off.
- From an external perspective, there were no reasons why Arjo would grow at a different pace than Getinge due to equal macro possibilities in the healthcare market.
- Arjo, as a part of Getinge, was seen as the deteriorating part of the firm, and this probably resulted in an underinvestment in the Arjo-division both in terms of tangible and intangible resources.
- Before the spin-off, top talents were being allocated to the more advanced areas within Getinge, indicating that there were negative synergies between the departments before the spin-off.
- Other departments were not dependent on Arjo, however, Arjo were dependent on other divisions when in need of capital.

Corporate focus

- Before the spin-off, the business was especially focused around high-technology products related to the operating room and intensive care units, which were profitable relative to other parts of the organization. There was an issue that Arjo could not focus as much as they wanted on long-term care customers, as it was not a priority before.
- The spin-off gave Arjo the opportunity to build up the organization around its core business and enabled both Arjo and Getinge to focus more on products which were important for their separate businesses.
- Before the spin-off, there were similarities between the three departments in Getinge, but differences became apparent on a detailed level.
- Arjo's products were targeted towards hospitals, long-term care facilities and other types of customers aside from hospitals, where the product sales were directed towards nursing. The remaining parts of Getinge solely targeted hospitals, approaching doctors with a more advanced clinical perspective.
- The buying and decision patterns differ significantly between hospitals and other customers, indicating limited synergies between the departments in terms of targeting the same potential buyers.
- Arjo as a part of Getinge offered advantages in forms of a broad product portfolio and extensive discussions with hospital management. When separating the firms, there were potential losses in synergies regarding this.

- Since the spin-off, the structure of Arjo has become more focused, creating opportunities to see where to invest and where to not invest.
- The spin-off facilitated the Arjo management to design the business in a way that the operating model would be customized for the purpose of the firm.
- Getinge took all the stranded costs from the spin-off, meaning that Arjo could start as with a lean and clear operating model without any redundant overhead costs.
- The increase in focus has enabled Arjo to turn the firm around, which drives shareholder value due to its appreciation by the market.

Other

- Spin-offs seem to be a trend, especially in Sweden, due to a general demand among investors for corporate focus.

NS

Niclas Sjöswärd <niclas.sjosward@getinge.com>
Mån 2019-05-06 15:07
Sofia Casserlöv

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Hej Sofia,

I det stora hela tycker jag det är korrekt uppfattat och ser ingen behov utav redigering av memo.

//Niclas

Appendix 10. Interview Memo: Annette Lykke

Date: May 3rd, 2019
Interviewee: Annette Lykke (Equity Analyst within Medtech and Foodtech at Handelsbanken)
Interviewer(s): Sofia Casserlöv & Alexandra Wiklund

Marked in green implies updated statements from comments by the interviewee

General information

- Corporate spin-offs are not frequently occurring in the medical device industry, and there have not been any corporate spin-offs within the medical device industry in the Nordic countries recently
- Relative to ~~peers~~ other MedTech firms, Arjo's product base is less technologically advanced and less innovative

Information asymmetry

- The spin-off increased transparency of the Arjo business to some extent, but the firm is still diversified with many different products driving the growth.
- Transparency and improved availability of information do not necessarily affect the shareholder wealth in a positive way and transparency alone does not increase the share price.
- The demand for transparency often decreases with increased performance, and investors wants transparency when they are trying to understand why a firm is underperforming and what the outlooks are for changing this.
- Delivering on promises is essential for a positive development of the share.
- A spin-off in itself is not value creating
- The spin-off led to better perception of managements' performance and the effect on the stock price have been positive as it has visualized a well-performing management.

Capital allocation

- Since the spin-off, Arjo has been able to locate issues and execute fast on action plans, bringing up the earnings again, which is essential from a shareholder wealth perspective.

Corporate focus

- While some of Arjo's peers have only one product driving growth, Arjo has a broad portfolio with a significant number of products which generate growth.
- When the number of products increases, the process around medical device regulation and approvals increases in complexity.
- The increase in corporate focus have had a positive effect on Arjo's shareholder wealth.
- Investors are willing to pay for performance, where focused companies generally perform better, implying that corporate focus can facilitate higher shareholder wealth.

Annette Lykke <anly05@handelsbanken.dk>
Tor 2019-05-09 15:07
Sofia Casserlöv

Memo Lykke - with comment...
66 kB

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Hi,

Just a single comments. Good luck with the project

Best,
Annette

Kind regards

Annette Lykke

Appendix 11. List of relevant previous research

#	Author(s)	Year	Sources of Wealth Effects Following Spin-offs Relevant for this Thesis
1	Berger & Ofek	1995	Reduced information asymmetry, Corporate focus & Improved capital allocation
2	Aron	1991	Reduced information asymmetry
3	Comment & Jarrell	1995	Reduced information asymmetry
4	Habib et al.	1997	Reduced information asymmetry
5	Krishnaswami & Subramaniam	1999	Reduced information asymmetry
6	Seward & Walsh	1996	Reduced information asymmetry
7	Sudarsanam & Qian	2007	Reduced information asymmetry
8	Veld & Veld-Merkoulova	2009	Reduced information asymmetry
9	Daley et al.	1997	Reduced information asymmetry & Corporate focus
10	Veld & Veld-Merkoulova	2004	Reduced information asymmetry & Corporate focus
11	Desai & Jain	1999	Corporate focus
12	Ahn & Denis	2004	Improved capital allocation
13	Burch & Nanda	2003	Improved capital allocation
14	McNeil & Moore	2005	Improved capital allocation
15	Rajan et al.	2000	Improved capital allocation
16	Scharfstein & Stein	2000	Improved capital allocation