

Privatization and leveraged buyouts in the Swedish elderly care sector

A study of how operator type affects care quality and financial
performance in Swedish nursing homes

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This thesis investigates the impact of operator type on elderly care in Swedish nursing homes. This is done by analysis of the potential differences in terms of quality of care and financial performance between the four operator types; municipality, private equity, private for-profit and private non-profit. We conduct 11 interviews with a broad selection of representatives with much insight in the elderly care sector. Additionally, we examine four different datasets on quality as well as key performance indicators regarding operational efficiency along with the distribution of profits. We find that private equity investors create operational value in terms of a larger increase in EBIT margin as well as in Revenue per employee post-buyout relative to private for-profit operators. At the same time we find no evidence of large differences in quality of care between the four operator types. Further, we see no indications of private equity owned operators generally paying out profits as dividends or using profits to pay off debt over the investment horizon, actions that otherwise could be seen as signs of short-termism. Based on our overall findings we do not see a trade-off between profits and quality. Thus, seeing that private equity owned operators show higher operating performance compared to private for-profit operators while we find no large differences in delivered quality, private equity investors should be suitable owners in the elderly care sector.

Keywords: Private equity, Privatization, Elderly care, Nursing homes, Operating performance, Care quality

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1 Introduction

At the end of 2011 about 19 percent of the population of Sweden was aged 65 years or above and almost 13 percent was aged 10 years and younger.¹ In 1900 the demographic structure was quite different, 24 percent of the population was 10 years and below while only 8 percent was 65 years and above (SCB, 2011). At the same time, the proportion of elderly people in need of care and service has been unchanged over the past 15 years (Socialstyrelsen, 2011), thus the actual number of elderly individuals who require care has increased substantially. According to the union Kommunal's report, Choices in Welfare (*Vägval välfärd*, 2012), the resources for elderly care have to increase by 61 percent up to 2030 in order to keep the care level in Sweden from 2008. When trying to solve this equation it becomes evident why the aging population and how to care for the elderly individuals in need currently is a topic of much discussion. One step that was taken towards developing the elderly care in Sweden was to introduce privatization in the beginning of the 1990's and thus open up for competition in the sector (Anell et al, 2011). Since then, the entrance of private actors in welfare services has become a heatedly debated political question. Most recently it was one of the main topics at the 2013 congress of the Swedish Social Democrats.² The debate concerning elderly care and the effects of private operators exploded in the late fall of 2011 when systematic mistreatment of the elderly was reported to occur at a nursing home operated by one of the largest private equity owned operators in Sweden, Carema.³ The original critique has since then become slightly more nuanced (see for example Stenshamn, 2012) but the suitability of private operators, and private equity operators in particular, in the elderly care sector is still widely questioned. It is mainly the focus on high exit values and thus on short-term profits and not on quality of care that is put forward as the argument against the private equity investors.⁴ Some studies have investigated the impact of different operator types on elderly care. For example, North American studies have found that private nursing home chains seem to have lower quality than public ones (see for example Harrington et al, 2012). Still, no existing research has found major quality differences in Swedish elderly care based on operator type (see for example Socialstyrelsen 2012a).

¹ Based on data from SCB http://www.scb.se/Pages/TableAndChart_262459.aspx (14 Feb-13)

² See for example: <http://www.dn.se/nyheter/politik/folj-s-debatten-om-vinster-i-valfarden> (24 Apr -13)

³ See <http://www.dn.se/Stories/stories-sthlm/varidskandalen-pa-koppargarden> (24 Apr -13)

⁴ See for example <http://www.dn.se/sthlm/privatiseringen-hela-havet-stormar> (29 Jan-13)

Why then would a country choose to open up for private alternatives seeing that some research indicates that they produce similar or even poorer quality than public nursing homes? The answer seems to lie in the effects of privatization where private companies have been shown to be more efficient than public ones (see for example Megginson and Netter, 2001). Previous research regarding leveraged buyouts in particular indicates that private equity investors create substantial value in their portfolio companies (Kaplan and Strömberg, 2008). For example, Davis et al (2009) find higher labor productivity and higher productivity growth for private equity target firms relative to comparable companies. Further, Bergström, Grubb and Jonsson (2007) find that buyouts have a significant and positive impact on the companies' operating performance when studying Swedish buyouts. Consequently, if private equity owned nursing home operators could be shown to be more efficient then they would be a highly interesting operator type seeing that they thus could optimize the use of tax funds in Sweden. However, it cannot be at the expense of a high quality of care.

With this thesis we aim to bridge some of the existing knowledge gaps in the area of privatization of nursing homes by evaluating if it is possible to combine profit motives with a high quality of care in Swedish elderly care. Through this we hope to clarify if variations in quality and operating performance actually can be attributed to operator type, here classified as; *Municipality*, *Private equity*, *Private non-profit* and *Private for-profit*. We also look at some aspects of the critique regarding short-termism by investigating if profits are lifted from the private equity companies during the holding period instead of being reinvested in the companies. We believe this study will contribute to the current debate on the subject as well as to the field of private equity research. We do this through: (i) interviews with three of the private equity companies that currently have or have recently had investments in the elderly care sector. This is complemented with interviews with the CEOs or similar at two of the largest private for-profit operators as well as at two large private non-profit operators. To get an even broader perspective on the potential differences between the operator types we also interview two representatives from two municipalities, a union representative from Kommunal who works specifically with employees in the care sector and a professor at the Department of Social Work at the Stockholm University who is specialized in the development of elderly care in Sweden; (ii) evaluating the impact of operator type on quality of care by conducting regression analyses on four different quality datasets (including result, process and structure measurements); (iii) analyzing the impact of a private equity buyout by looking at the operating performance pre- and post-buyout and controlling the performance by looking at a peer group consisting of private for-profit operators.

We also examine the profit distribution in the private equity owned companies by looking at changes in equity and debt after the buyout and again benchmarking against the peer group to assess potential signs of short-termism. Finally, we discuss the quantitative results regarding quality and financial performance with the output from the interviews as background. In this thesis we have decided to narrow the scope by only looking at nursing homes (*särskilt boende*) and not at home care services, this since the two types of elderly care are differently structured so if treated together the results would be difficult to interpret correctly.

In the analysis of quality of care we find that there are no clear differences between the operator types in general. Thus, no operator type can be said to have higher or lower quality than the others. However, the few significant results that we find all indicate a similar pattern, private for-profit homes outperform both private equity and municipality operated homes and private equity operated homes in turn receive higher quality ratings than municipality homes. The differences are generally small but still significant. The explanatory values of the regressions are overall low, indicating that other factors impact quality above operator type. One such element could be the individuals employed at each nursing home as well as their working environment, as was pointed out by many of the interviewed representatives.

In the financial performance analysis we find that the private equity owned companies are on average better at increasing margins than other private for-profit companies, which seems to be mainly stemming from a higher growth in revenue than in costs. This is also consistent when comparing with the now private equity owned companies prior to buyout. Thus the result seems to be connected to the actual change in governance, from private for-profit to private equity owned where private equity ownership appears to have a positive impact on operating performance. Concerning the critique of short-termism in private equity owned companies, we find that profits are generally reinvested in the care company and that they are not systematically used to pay off debt over the investment horizon.

To our knowledge no existing research on the topic has analyzed all the here included aspects regarding differences based on the four operator types in Swedish elderly care. Based on our overall findings there does not seem to be an evident trade-off between operational efficiency and quality. However, on a few quality indicators we can see that private for-profit operators perform slightly better than private equity and municipality operators while private equity generally are more operationally efficient suggesting that it is not profits as a phenomena that affects quality but rather how a company is governed.

2 Previous research

2.1 Private equity

In 2010, the total amount of buyout investments in Swedish companies was 23.7 bn SEK. This amount was more than twice the size of the 2009 investment level and it was the highest investment level ever noted for the Swedish buyout segment.⁵

It was in the 1980's when leveraged buyouts first became a well-known concept when specialized investment firms, generally referred to as private equity companies, acquired companies using a relatively large share of debt. In order to fund its investments, the private equity company raises capital through private equity funds. The funds are typically closed-end vehicles where investors confide in providing a specified amount of capital to the fund to be used for investments in other companies. The legal structure of the funds is built upon limited partnerships where the limited partners provide the majority of the capital and where the general partners manage the fund (Kaplan and Strömberg, 2008). Jensen (1989) describes these partnerships to be decentralized with a limited number of investment professionals and employees, incentives built around pay-for-performance and directors and managers having a substantial equity ownership. Further, Fenn, Liang and Prowse (1997) acknowledge the partnership as the dominant form of intermediation as the partners hold both informal and formal control through their status as the largest and most active shareholders. Through their control and the legal structure behind partnerships they are able to govern their companies in the shareholders' interests and align the interests of the limited and general partners. It is common that the private equity fund has a fixed lifetime, usually ten years, with the chance of being prolonged for up to three additional years. When capital is committed into the fund, the private equity firm usually has up to five years to invest the capital into companies and the following five to eight years to return the invested capital to the investors. During the life of the fund the private equity firm earns a fixed annual management fee and a variable fee which is dependent on the fund's profits, commonly referred to as carried interest. Due to the fixed lifetime features of the private equity fund, the timing and manner of exiting an investment becomes an important part of the process. General exit options that the private equity firm has are selling the company to either a strategic buyer (i.e. non-financial), to another private equity fund through a secondary buyout or by listing the

⁵ SVCA press release March 9, 2011

company on a public stock exchange through an initial public offering (Kaplan and Strömberg, 2008).

In 1989, Jensen describes the public corporation as ineffective and unable to adjust to new economic conditions and emphasizes that leveraged buyouts would eventually evolve as the predominant long-term organizational form. Rappaport (1990) disagrees with Jensen and puts forward that public corporations are both vibrant and dynamic institutions and acknowledges that a majority of the leveraged buyouts go public again within a few years after the buyout. He sees leveraged buyouts as an exquisite and short period of corporate restructuring for already troubled companies. Kaplan (1991) concludes leveraged buyouts to be neither temporary nor lasting as he finds the median time for leveraged buyouts staying private to be 6.82 years. Strömberg (2008) shows how the average privately owned holding periods have been prolonged since the 1980's when accounting for secondary buyouts. Further, he shows that the median company that has been taken private through a leveraged buyout is still under private equity ownership after nine years of the original buyout transaction.

There has been a large body of literature investigating whether or not private equity companies return value to their shareholders and what actions the private equity firm implements in order to enhance the value of their investments (see for example Lichtenberg and Siegel, 1990, Kaplan and Strömberg, 2008 and Harris, Jenkinson and Kaplan, 2012). There exist different understandings concerning the role of private equity in the economy and what private equity investors essentially do. Opponents debate about how private equity companies do not generate any real operational value but instead take advantage of tax benefits and superior information. On the opposite, proponents argue that private equity companies apply specific sets of actions in order to improve operations and hence increase efficiency.

2.1.1 Value increasing activities

Kaplan and Strömberg (2008) discuss how private equity companies apply three sets of actions to increase the value of their investments that they refer to as financial, governance, and operational engineering.

Financial engineering involves using debt as an effective way of putting pressure on managers not to waste excess cash on unprofitable projects, as they must meet interest and principal payments. The presence of interest and principal payments decreases the free cash flow problem that can arise in mature companies with weak corporate governance (Jensen, 1986). In these companies, managers have incentives to disperse excess cash instead of refunding them to investors. Apart

from reducing the free cash flow problem, debt is also associated with certain tax advantages that induce valuable tax shields (Modigliani and Miller, 1963). Kaplan (1989a) estimates the median value of tax benefits of 76 management buyouts of public companies to be between 21 percent and 143 percent of the premium paid to pre-buyout shareholders and concludes tax benefits to be an important source of value creation in buyouts. However, estimating the exact value of the tax shield is difficult due to assumptions about the tax advantage of debt net of personal taxes and the risk associated with the tax shield (Kaplan and Strömberg, 2008). Another aspect that is brought forward by Kaplan and Strömberg (2008) is that too much debt can leave companies with little flexibility of meeting the required payments and hence increase the likelihood of financial distress.

Governance engineering involves private equity companies taking on a more active role in their portfolio companies than boards of public companies. Acharya, Hahn and Kehoe (2009) find that private equity companies, compared to comparable public companies, more frequently replace ineffective management under the early stages of a leveraged buyout, have fewer people sitting on the boards as well as meet more frequently. In addition to replacing management more frequently they find that more than one-third of the CEOs are replaced within the first 100 days of the buyout transaction and more than two-thirds are replaced before the private equity company makes an exit.

Operational engineering involves private equity companies adding value to their investments through the industry and operational knowledge they possess. Apart from the majority now being organized around industries, private equity firms usually employ professionals with operating backgrounds from the portfolio companies in order to improve operational weaknesses. Value enhancement then comes from the expertise that is used when developing value-creation plans that includes reducing costs and taking advantage of economies of scale (Acharya, Hahn and Kehoe, 2009). Even though critics argue that private equity companies take advantage of tax shields and superior information, there is empirical evidence showing positive post-buyout operating performance indicating that private equity companies do improve operations and productivity (Kaplan and Strömberg, 2008).

Lichtenberg and Siegel (1990) investigate the effects leveraged buyouts have on productivity. They find evidence that leveraged buyouts significantly increase productivity and hence improve operating performance. This result is in line with the one of Kaplan (1989b) and Smith (1990), who find evidence of improved operating performance following a management buyout as both

operating cash flow and capital efficiency were improved. However, the results should be interpreted with some caution as the estimated results can be biased since they are based only on successful leveraged buyouts. Bergström, Grubb and Jonsson (2007) analyze leveraged buyouts' impact on operating profitability in Swedish buyout companies and find buyouts having a significant and positive impact on the companies' operating performance. However, Leslie and Oyer (2008) find little evidence of operational efficiency being associated with private equity ownership. The decline in capital expenditure following a leveraged buyout that some studies have proven raises the question of the probability that private equity companies may increase current cash flow on the expense of future cash flow (Kaplan and Strömberg, 2008). Lerner, Sørensen and Strömberg (2008) investigate whether or not leveraged buyouts sacrifice long-term growth, measured by patenting activity, in order to increase short-term performance. They find no evidence that leveraged buyouts are related to a decrease in patenting activity but rather are associated to an increase in patenting citations which they use as a proxy for economic importance. Harford and Kolasinski (2012) examine whether or not private equity sponsors create long-term value in their portfolio companies or if they transfer the value to themselves by analyzing all large U.S. private equity buyouts between 1993-2001. They conclude that value creation does not occur at the expense of other transaction parties as portfolio companies do not underinvest during the holding period when benchmarked against comparable firms and as special dividends are not correlated to future company distress. This result holds regardless of exit form. Davis et al (2009) study U.S. leveraged buyouts at establishment level between 1980 and 2005. They find higher labor productivity and higher productivity growth for target firms, both at the time of the transactions as well as two years after, when compared to comparable firms. Further they show how targeted firms are more likely to shut down underperforming establishments.

While the above studies have focused on the impact that leveraged buyouts have on operating profitability, other and more current studies have paid more attention to the generated returns private equity companies have created following a leveraged buyout.

Kaplan and Schoar (2005) study private equity returns and find that on average, the returns net of fees are somewhat less than those of the S&P 500 index implying no reason for investing in private equity. However, gross of fees private equity returns is higher than those of the S&P 500 index giving evidence that private equity companies increase value in their portfolio companies. Further, they also find evidence of higher returns, significantly above the S&P 500 index, for more experienced private equity companies. These returns are accompanied by a persistence

indicating that there are some professionals that are more skilled than others when it comes to leveraged buyouts. Remarkably, this persistence has not been established for mutual funds (Carhart, 1997). Acharya, Hahn and Kehoe (2009) add another angle to the studies solely analyzing the returns generated by private equity companies as well as to the studies focusing on operating performance, by studying them together. While they only find small operating improvements they do find high average investor returns above the sector and the market. These findings are consistent with the one of Guo, Hotchkiss and Song (2011) who find high investor returns but only modest operating improvements. In a more recent article, Harris, Jenkinson and Kaplan (2012) study the performance of private equity funds by focusing on U.S. buyout and venture capital funds. They find that buyout funds seem to have outperformed public markets during the 1980's, 1990's and 2000's while venture capital funds have outperformed the public markets in the 1990's but have underperformed them in the 2000's.

2.2 Privatization

The concept of privatization has been heatedly debated across the years but has gained foothold in Sweden over the most recent decades (Munkhammar, 2007). The term is commonly used in the media and is broadly defined as “*the deliberate sale by a government of state-owned enterprises (SOEs) or assets to private economic agents*” (Megginson and Netter, 2001).

State ownership was popular in the developed countries in the 1930's through to the 1960's. During that period this type of ownership was seen as the solution to market failures like externalities and monopoly. In the decades that followed, theories concerning private firms being more efficient than SOEs gained momentum (Shirley and Walsh, 2001).

Many studies have analyzed the effect that the two types of ownership have on a company or organization. Several of these show results in favor of privatization when looking at operating and financial performance (Megginson and Netter, 2001). For example D'Souza and Megginson (1999) find significant increases in profitability, output, operating efficiency and dividend payments when comparing pre- and post-privatization performance and D'Souza, Megginson and Nash (2001) find significant increases in profitability, output per employee and real sales following privatization. An intuitive argument for this could be that the competition in markets force private firms to be more efficient. In that case however, Shirley and Walsh (2001) argue that it would be competition in itself that impacts the performance of a firm and not the actual type of ownership. Nonetheless, when reviewing the empirical research, they find that the positive effect of competition does not dominate the ownership effect. This is also something

that Kikeri, Nellis and Shirley (1992) conclude; “*private ownership itself makes a difference*”. They find that private ownership has a higher probability of providing efficient performance than SOEs over time.

Why then have there been so many state owned companies throughout history? The theoretical explanation is that governments can act in order to resolve market failures such as monopolies or to regulate externalities like pollution. The state could also aid in the provision of private goods such as education (Megginson and Netter, 2001). Shirley and Walsh (2001) write that in a world with complete contracts a market with public ownership and regulation of a market of private ownership would lead to the same result. However, in the real world with incomplete contracts the outcome often depends on the institutional setting. Privatization in a developed western economy will not have the same effects as privatization of SOEs in a small developing country (Vickers and Yarrow, 1991) and would also depend on the degree of market failure (Megginson and Netter, 2001).

Turning to privatization specifically in health care, it can come in several shapes; privatization of health care financing, of health care provision, of health care management and of health care investment (Maarse, 2006). Albrecht (2009) argues that there are risks connected to privatization of health care, such as challenges to transparency. If health care providers are favored based only on financial efficiency and not on outcome there is a risk of a country developing a parallel health care system, which is only available to those who can afford it. A similar argument for this type of *dualization* of elderly care is made by Szebehely and Trydegård (2012). In their empirical study of Swedish level-of-living surveys along with a database of tax deductions on household and care services, they find that elderly individuals with lower education to an increasing extent receive family care (care provided by family members), whereas individuals with higher education have a higher likelihood of purchasing private household services. This even if most elderly individuals are shown to prefer formal care.

2.3 Elderly care in Sweden

In a welfare state like Sweden or any of the Scandinavian countries the task to manage the care for the elderly is a governmental one. What is particular for the Scandinavian model is that not only is the elderly care financed by the government, to a large extent it is also executed by public institutions (Daly and Lewis, 2000). Thus privatization in Swedish elderly care means, at the moment, private actors taking over health care provision, not private financing of elderly care. However, nursing homes can to a small extent offer add-on services that can be paid for by the

users and thus are privately financed.⁶ The social services (*Socialtjänsten*) in each municipality is responsible for providing elderly care and can design the health and social care according to local circumstances. This was initiated through the so-called Ädelreformen⁷ in 1992 and is regulated in the Social Services Act (*Socialtjänstlagen 2001:453*).⁸ The municipalities are also responsible for controlling the care operators that have been allowed to provide care services in that particular municipality (Socialstyrelsen, 2012a). From the beginning of the 1990's municipalities have been able to open up for competition in the procurement of elderly care and since then more and more municipalities have chosen to do so. In 2011, 139 out of Sweden's 290 municipalities had allowed for competition in the elderly care sector (Anell et al, 2011). Currently, private actors operate about 20 percent of the total Swedish elderly care. Competition can be entered mainly in two different ways; either the business can become subject to competition through the Contracting Model (*Entreprenadmodellen*) or the Model of Choice (*Valfrihetsmodellen*). The two models are regulated through the Public Procurement Act (*Lagen om offentlig upphandling (LOU) 2007:1091*) and the Act on Free Choice Systems (*Lagen om valfrihetssystem (LOV) 2008:962*) (Socialstyrelsen, 2012a). In the Contracting Model private care providers are allowed to compete with each other and with the municipality's own care providers based on price or quality. The municipality then decides which care provider wins each contract. The choice systems are instead a sort of voucher system where the elderly individuals who have been granted care by the municipality can choose for themselves which operator to use among those that have been authorized by the municipality (Regeringen, 2008). In the latter case the private operators own or rent the nursing home themselves as opposed to in the Contracting Model where the actual home is owned or rented by the municipality. The Contracting Model is the most common way of entering competition for nursing homes and only six municipalities had allowed for competition through the Model of Choice in October 2012.⁹ In April 2012 about 5 percent of the people aged 65 years and older were living in nursing homes, in the group of people aged 80 years and older the corresponding number was 14 percent (Socialstyrelsen, 2012b).

⁶ http://www.svd.se/opinion/brannpunkt/tvinga-inte-fram-privat-omsorg_7267387.svd (30 Apr-13)

⁷ <http://www.ne.se/%C3%A4delreformen> (25 Feb-13)

⁸ <http://www.regeringen.se/sb/d/14933> (13 Feb-13)

⁹ http://www.skl.se/vi_arbetar_med/valfrihet/valfrihetuppdrag/kommuner_och_valfrihetssystem_oktober_2012 (2 Apr-13)

Often only the difference of public versus private operators is made in welfare services but here we make a distinction between four main types of care providers in Swedish elderly care today; care institutions that are run by the municipality, by private equity investors, by private non-profit organizations and by private for-profit organizations. This since the different types of private actors should differ based on goals (non-profit versus profit driven) and on insight from previous research regarding performance and governance (private for-profit and private equity). Two large chains, which together account for about half the market, Carema¹⁰ and Attendo, today dominate the private market for elderly care in Sweden, both owned by private equity investors (Anell et al, 2011). Besides these two operators, the private equity ownership is largely represented by the two smaller operators Humana and INOM. Humana however have their main focus on personal assistance and INOM are mainly specialized within psychiatry and thus they will not be included in the scope of this study. Another large care company that was previously owned by private equity investors is Aleris, now owned by Investor AB, a large professional investment company. Private equity investors entered the elderly care industry abruptly in 2005 when Aleris, Attendo and Carema all were bought by private equity investors. Two of the three initial investments have been exited through secondary buyouts; Attendo was sold in 2006 by Bridgepoint Advisers to IK Investment Partners and 3i sold Carema to Triton and KKR in 2010. In the same year EQT exited Aleris through a sale to Investor.¹¹

Several studies have focused on the effects of different operator types in elderly care. In their empirical study Harrington et al (2012) investigate the quality of care in the ten largest U.S. for-profit nursing home chains and compare it to that of government facilities. As proxies for quality they use nursing staffing hours and number of deficiencies and find that the for-profit chains have lower total nurse staffing hours and significantly more deficiencies. In order to get a better understanding of what Swedish elderly care looks like today the government commissioned a study from the National Board of Health and Welfare (NBHW) (Socialstyrelsen, 2012a). The report was published in spring 2012 and presents analyzes on different data sources on quality in elderly care in Sweden. The general conclusion is that no large differences in quality can be found based on operator type but that more research is needed in the area. Arfwidsson and Westerberg (2012) find that private equity owned nursing homes in Sweden seem to have a lower

¹⁰ Also known as Ambea (the mother company). However, we will refer to the company as Carema as this is the more widely known name of the company

¹¹ Information from Capital IQ

number of employees per resident and a higher proportion of staff employed in an hourly basis, but no other quality differences are found. Turning to the dichotomy between for-profit and non-profit nursing homes, Hillmer et al (2005) find that empirical research from the past 12 years on North American nursing homes indicate that there are systematic differences between for-profit and non-profit institutions where for-profit nursing homes seems to deliver lower quality.

3 Data

In the following section we will present the data and the respective data sources used in our study.

3.1 Interviews

In order to understand the elderly care sector from several different perspectives representatives from a wide variety of organizations were contacted for interviews. See Table 1 for an overview of the persons that were interviewed.

Table 1 – Overview of interviewed representatives

Name	Organization	Position	Category
Helena Stjernholm	IK Investment Partners	Partner (board member Attendo)	Private equity
Magnus Lindquist	Triton Partners	Partner (board member Carema)	Private equity
Åsa Riisberg	EQT	Partner (responsible for health care investments)	Private equity
Ingemar Helgesson	KOSMO	CEO	Private for-profit
Sakarias Mårdh	A & O i Sverige	CEO	Private for-profit
Erik Caster	Fogdaröd	Director	Private non-profit
Martin Ärnlov	Bräcke diakoni	CEO /Director	Private non-profit
Anders Håkansson	Stockholms city management offices (Stadsledningskontoret)	Innovation department	Municipality
Elisabet Sundelin	Solna stad	Quality manager	Municipality
Marta Szebehely	Socialhögskolan	Professor	Researcher
Liza di Paolo	Kommunal	Responsible for members in the care sector	Union

3.2 Quality data

The quality data used in this study comes from different quality surveys put together by the NBHW. They have, together with Sweden's municipalities and county councils, developed a model for quality within social services (Socialstyrelsen, 2007). According to the model, it is common to distinguish between three types of quality measures or indicators; structural dimensions, process dimensions and result dimensions. Structural dimensions indicate conditions, or resources, for the quality of an organization's operations where indicators may

relate to staffing, competence and equipment. Process dimensions reflect methods and procedures within an organization's operations where indicators may concern practices, attitudes and routines. Result dimensions measure the results and effects an operation has on the users. According to NBHW it is important to look at all of the dimensions in order to give a comprehensive and overall picture of the quality of elderly care in Sweden (Socialstyrelsen, 2012a). All quality indicators used are listed in Table (i) in the Appendix. As far as we know, no previous academic studies have analyzed all of the dimensions in order to assess what impact different ownership types have on the quality of elderly care in Sweden. Therefore, in this study we use all of the mentioned dimensions and they will be represented through the following data sets: the national user surveys (NCI and the 2012 National User Survey), user surveys from the municipality of Stockholm and NBWH's quality survey (Äldreguiden), see Table 2 for an overview of the data.

Table 2 – Overview of the data

Dataset	Time span	No. municipalities	No. nursing homes	Operator types
NCI	2011	16	229	4
2012 National User Survey	2012	25	364	3*
Stockholms stad user surveys	2010-2012	1	243	4
Äldreguiden	2012	291	2520	4

*Non-profit excluded due to limited data

3.2.1 The national user surveys

Since 2006, NBHW is commissioned by the government to make annual national user surveys of elderly people's perception of health and social care. The national user surveys have been published since 2008 and the aim is to, from an elderly perspective, monitor quality and availability within social services (Socialstyrelsen, 2012c). The surveys include elderly care users, 65 years or older, living in nursing homes under the NBHW elderly care directory or having home care services beyond security alarms and/or home delivery meals. As the surveys emphasize the users' perspective on quality in elderly care, the national surveys are categorized into the result dimensions.

The opportunity to participate in the surveys has been given to all of Sweden's municipalities. However only a certain number of the participating municipalities have chosen to request the results on unit level. In this study we have chosen to use the national user surveys from 2011 and 2012 for people living in nursing homes since the sample of results on unit level is the highest

for these two years (it has only been available on unit level from 2010). However, NBHW changed the survey questions and how they present the results for the 2012 National User Survey; hence the 2012 results are not comparable with the results from the previous surveys and will have to be treated separately.

- 2011: Measures the National Customer Index (NCI)¹² where the results from the questions have been indexed. See Table (ii) in the Appendix for descriptive statistics.
- 2012: For the 2012 National User Survey the results are presented in the form of frequency tables for each question. See Table (iii) in the Appendix for descriptive statistics.

Due to secrecy issues the data was not accessible through the Central Bureau of Statistics (SCB) who collect the data. Thus, all the participating municipalities with unit level results for 2011 and/or 2012 were contacted directly, either through e-mail or over the phone, in order to see if they wanted to participate in this study and thus send us their data from the surveys. We were able to access data for 33 out of the 73 contacted municipalities, either for 2011 and/or 2012.

3.2.2 User surveys from the municipality of Stockholm

The municipality of Stockholm produces user surveys on a yearly basis. They are based on surveys that are sent out to elderly individuals living in nursing homes in Stockholm in order to examine the quality of care at each unit. The surveys thus measure result dimensions of the quality. We use data for the years 2010-2012. Some of the survey questions have changed over the years so only the ones that are the same will be used in the analysis. For descriptive statistics of the data see Table (iv) in the Appendix.

3.2.3 Quality survey from the Swedish National Board of Health and Welfare

For six years the NBHW have produced a guide for the comparison of nursing homes, home care services and daytime centers. The guide is called Äldreguiden in Swedish and is based on data submitted by municipalities and 5 200 elderly care units, registry data and data from the municipalities' websites. For 2012 the guide covers 97 percent of the nursing homes in Sweden.¹³ The quality indicators in the guide measure either structural dimensions or process dimensions. We have had access to the raw data for Äldreguiden 2012 that was collected in 2011 and early

¹² "Nöjd-Kund-Index" in Swedish

¹³ <http://www.socialstyrelsen.se/aldreguiden/saharvigjortaldreguiden> (14 Feb-13)

2012. For this dataset to be comparable to the other three datasets we use only the nursing home data. See Table (v) in the Appendix for data descriptive statistics.

3.3 Financial data

For the analysis of operating performance the data used is the latest available financial statements from the organizations of interest, the private equity owned companies as well as the peer group. These are public statements that have been downloaded from the database Retriever and matched with statements from the database Affärsdata. In order to fulfill the purpose of this thesis the statements have been refined to reflect only the Swedish market for elderly care in particular. Thus, for the larger care company groups (e.g. Aleris, Attendo, Carema) we use only the results for the Swedish daughter or mother companies that focus on elderly care (Aleris Omsorg AB/Aleris Äldreomsorg AB, Attendo Sverige AB and Carema Äldreomsorg AB). For the equity and debt analysis we also use the statements for all the mother companies within the care company group. For the private for-profit organizations that are included in this section, A&O i Sverige AB, Förenade Care AB and Kropp och Sjal med Omtanke i Helsingborg AB (KOSMO) the statements for the entire organizations have been used. Most of the companies operate both nursing homes as well as home care services, it is thus difficult to find statements that reflect only nursing homes but they have been refined as much as possible.

4 Method

In order to assess whether or not operator type has an impact on quality and financial performance in the elderly care sector in Sweden we use a threefold methodology similar to that of Lundsten and Löfqvist (2011). The methodology consists of: (i) interviews with professionals from private equity companies, private-for-profit companies and private-non-profit organizations as well as other professionals that have good insight into the elderly care sector in Sweden; (ii) regression analyses of quality data to see the possible impact of the different operator types; (iii) analysis of the effect of a buyout by looking at the operating performance pre- and post-buyout for the private equity owned companies and controlling the performance by looking at a peer group consisting of private-for-profit companies. We also look at how the different companies distribute their profits by analyzing changes to their equity and debt.

4.1 Interviews

In order to get a broad perspective on the topic of operator impact on quality and financial performance we conduct interviews with key actors in the elderly care sector. When choosing interviewees our aim was to get as broad a sample as possible and to include representatives of all operator types. We wanted to have at least two representatives for operator type for the three categories of private actors. This to be able to compare views across operator types instead of just between different organizations. For the municipality operated nursing homes the organizational structure is quite different in terms of who is responsible for strategic questions regarding quality and financial issues. In the municipalities this might not be the same person, at least not in the same sense as a CEO would be in a private organization. Thus, for the municipality side we instead interview one person who works with quality management and one who works with the distribution of the public financing for elderly care. In addition to these interviews we also wanted to broaden the scope with two more outside views on the sector, one representative from the largest union for care workers, Kommunal, and a professor at the Department of Social Work at the Stockholm University who is specialized in the area of elderly care. See Table 1 in the Data section for a list of interviewees.

We conduct 11 semi-structured interviews, five in person and six over the phone. The interviews are based on a standardized interview guide concerning the following topics: Value creation and financial performance, Profits and reinvestments, Quality and Corporate governance as well as The impact of privatization in the elderly care sector. The interview guide has been adjusted in order to make it relevant for the interviewee and sent out to each representative prior to the

interview. See Table (vi) in the Appendix for an example of an interview guide used. All the interviews were recorded.

4.2 Quality assessment

In order to be able to analyze the quality data based on operator type we start by defining each nursing home by its operator category – *Municipality*, *Private equity*, *Private-non-profit* and *Private-for-profit*. The same categorization is used independent of if the operators actually own the nursing home themselves or if they are operating it as a contractor. This since it is the operator that should impact the operations and thus financial and qualitative measures and not the legal owner of the nursing home (which would then be the municipality for all contracted businesses). Aleris is currently owned by Investor, an actor that can be seen as in between private equity and private for-profit in terms of our classification. When comparing Investor to the other private equity owners as well as the private for-profit owners, Investor is more comparable to the private equity companies in terms of their corporate governance model, business strategy and operations, and thus we choose to classify them here as private equity. However, we are aware that they have a longer investment horizon than the traditional private equity investors, something that might impact our results. The datasets already contain information whether or not a nursing home is public or private, hence to complete the operator categories we have to decide upon which of the privately owned nursing homes belongs to the three private categories – private equity, private-non-profit and private-for-profit. This is achieved by using available information on each nursing home either by looking at their respective webpage or by searching at the municipalities' webpages for further information. For the Stockholm dataset, that is available over time, the operator categorization is done based on the contracts. This since if the municipality outsources the operations the operator type can change if the contract is procured during the time where data is available. Thus, for a few nursing homes the operator type changes between 2010-2012.

In order to be able to use the 2012 National User Survey in regression analyses we need to create one quality number for each variable per nursing home. This is done through a rating of the response options in each survey question, for example 1-5. The rating is then weighted together to one number using the corresponding frequency of respondents for each response alternative.¹⁴ In this dataset the proportion of Don't know-answers is high and thus we have to decide whether or not to include them in the weighing. To understand if the Don't knows carry any

¹⁴ For example if 10% answered Excellent, 15% Very good, 35% Good, 25% Ok and 15% Poor, then the calculation would be $0.1*5+0.15*4+0.35*3+0.25*2+0.15*1=2.8$

information we regress if the respondent has answered the questions for him-/herself or if a relative has answered instead against the Don't know-answers. We find this result to be significant. If the respondent has answered for him-/herself does partially explain the fraction of Don't knows. The Don't know answers are thus not just noise but has actual meaning to some extent. In the weighing of the response answers we choose to exclude the Don't knows, but in order not to lose the potential meaning we control for the fraction of Don't know answers in the regressions. The only other dataset where Don't know answers are available is the Stockholm dataset. We do the same regression analysis and find that if the respondent has answered for him-/herself is significantly related to the Don't knows. Thus we include a control for the Don't knows in the Stockholm dataset analysis as well. In order to create usable quality measures also for Äldreguiden we create fractions of the number of answers per two related questions, for example the unit's number of adequately trained staff/the total number of monthly employed staff at the unit.

The NBHW point to that there are other important factors than operator type that could have an impact on the perceived quality in elderly care (Socialstyrelsen, 2012a). The size of the nursing home is one example as, in their report, they show that elderly individuals living in smaller units are more satisfied with the quality than elderly living at larger units. To control for this, we include a size variable. Since the number of residents in each home is not available in the data we use the maximum number of respondents for each home as a proxy for the size of the nursing home. Another possible variable that could impact the perceived quality is the condition of the elderly; one could think that a nursing home with old users that are in bad condition is tougher to operate than one where the users feel better. Because no variable that reflects this condition is available we include a proxy for the condition of the elderly where other variables connected to the state of the elderly can be found. For the Stockholm dataset this proxy is the age of the respondents and for the 2012 National User Survey we instead use if the respondent has answered the questions for him-/herself or if a relative has answered in the respondents place. A third control variable that is used in the regressions is the size of the operator. If the operator runs five or more nursing homes we categorize it as a large operator (1), and otherwise as a small operator (0). The logic behind this variable is that larger operators may gain from scale effects but may at the same time perhaps not be able to focus as much attention to each nursing home as a smaller operator.

We use the following model in order to assess the impact of operator type on the quality of elderly care in Sweden:

$$Y_{i,t} = \alpha_i + D_{operator_type,t}\theta + \gamma_i M_i + \lambda_t T_t + \beta_{i,t} X + \varepsilon_{i,t}$$

$Y_{i,t}$ represents the dependent variable (the elderly care quality indicators), $D_{operator_type,t}$ represents the dummy variables related to operator type, M_i represents municipality fixed effects, T_t represents time fixed effects and $\beta_{i,t}$ represents how each control variable loads on to quality and X is thus the relevant/available control variables.

We then perform OLS regressions using robust standard errors in order to control for heteroskedasticity in our datasets. This is done for all datasets except for the one from Stockholm where clustered standard errors are used instead. This since in the Stockholm dataset the data is provided on individual level and we cluster it on nursing home level in order to match the other three datasets where the data is provided per nursing home. Each regression tests each quality indicator in the four datasets against the operator types, represented by operator dummies. We run one regression with the relevant fixed effects and the operator types as the independent variables, excluding the private equity-dummy in order to use this as the benchmark in all regressions. Different fixed effects are used depending on the structure of the datasets used in the regressions. For example for the datasets that cover multiple municipalities i.e. the national user surveys and Äldreguiden we include municipality fixed effects to control for bias based on a nursing home being located in a specific municipality and for the Stockholm dataset we instead control for each city district. Through this any socioeconomic variations over different geographic areas that may affect quality is controlled for (on a municipality or city district level). For the Stockholm dataset where the data is available for 2010-2012 we also include time fixed effects in order to control for potential time variations during that period. Then we run the same regressions again while also adding the available control variables. We do this duplication of each regression since some of the controls could take out information that we are actually interested in. For example the size proxy; private equity investors might use the size of operators and nursing homes as a strategy to gain economies of scale. Thus we might control for too much of the variation that in fact could be attributed to a nursing home being owned by a private equity investor. Hence, we will run one regression without controls and one with to see how the results change with control variables.

In order to ensure that no hidden significant differences exist between the other three operator types apart from private equity we also conduct F-tests of the coefficients in connection with the regressions. In addition to the regression analyses we also perform T-tests for the means of each quality indicator for each operator type in the Stockholm dataset between the available years to see how they change over time.

Further, we conduct a principal component analysis (PCA) in order to see if the separate questions are better measured with more general components. Through this technique one can transform a large number of correlated variables into a smaller set of uncorrelated variables, components. This is done for each of the four datasets. When looking at the results from the PCA and comparing with the economic intuition behind the survey questions, it turns out that the only dataset where the components can be economically interpreted in a satisfactory way is Äldreguiden. We use a cutoff value for the eigenvalues of ≥ 1.000 and compare the suggested number of components with the corresponding number from the screeplot, see Figure (i) in the Appendix, and end up with four new variables (components) for Äldreguiden. In order to interpret the economical intuition behind the chosen components we use a cutoff value of ≥ 0.350 for the eigenvectors. See Tables (vii) and (viii) in the Appendix for more detailed information. For the NCI dataset it is not so strange that the PCA does not make much sense since the variables in the dataset are already indices based on several original questions and thus we choose not group these variables further. However, for the Stockholm dataset and the 2012 National User Survey we have chosen to group the questions into more general areas of interest, for example questions relating to staff, food and influence. This is done by taking mean values of the grouped questions per nursing home and using the mean results as the new variables. In the 2012 National User Survey we only group variables that have the same type of rating, for example only questions rated 1-5 and reflecting the same area are grouped together. Based on the new grouped variables or components we conduct the same regressions again, one without controls and one robustness regression with controls, along with corresponding F-tests of the coefficients for each of the new grouped quality variables in the 2012 National User Survey, Äldreguiden and the Stockholm dataset. This to see if there are differences between the operator types in more general areas.

In order to test if a high result on one type of quality measurement means that a nursing home also will receive a high score on another type of quality measurement we test the dataset with the structure and process measurements, Äldreguiden, against the variable *NCI* for 2011 as well as

against the variable *Satisfaction with the nursing home* from the 2012 National User Survey (two separate result measures for overall satisfaction). We choose these result measurements as they cover most nursing homes nationally and were collected during approximately the same time period as the Äldreguiden data. We match the datasets together for the nursing homes that are covered by both the NCI and Äldreguiden as well as the 2012 National User Survey and Äldreguiden. All the quality indicators in Äldreguiden are then regressed against NCI and Satisfaction with the nursing home respectively to see if there is any statistical significance between the different types of measures.

For all the regressions in this study the STATA 11 software package is used.

4.3 Financial performance

To evaluate if the financial performance of the nursing home operators differ based on type of operator, we look at key performance indicators and changes in equity and debt. This analysis is however not as relevant for all four operator types. If a municipality nursing home is above budget one year the excess will go up in the overall municipality budget and thus they have no incentives to generate high profits. Further, finding relevant financial statements for municipality operated nursing homes is difficult. Private non-profit operators have a very different financing structure from the profit driven operators, where most of them are funded through a foundation, as well as a different business purpose so a comparison would not be so relevant. We start by identifying buyout-effects on operating performance by analyzing key performance indicators pre- and post-buyout and benchmarking the results against private for-profit operators during the same time period. Second, we focus on the distribution of profits in the different types of operators. We analyze the changes in equity for the private equity owned nursing home chains and compare these to the changes for the private for-profit operators. This should indicate whether profits are lifted from the nursing homes as dividends or are reinvested in the operations, and if this differs between the two types of profit driven operators. We also look at the leverage structure of the private equity owned care company groups and analyze if profits are used to pay off debt over the investment horizon, since this could be seen as an indirect dividend.

4.3.1 Operating performance - buyout effects

In order to identify recent buyouts in the elderly care sector we use the Capital IQ database. Since our focus is to first and foremost identify effects of private equity ownership we only concentrate our search on primary buyouts. The search criteria used was Healthcare providers

and services in Sweden where the buyer is a private or public investment firm. The buyouts that matched these criteria were: Aleris, that ISS sold to EQT in February 2005, Attendo, that was sold to Bridgepoint also in February 2005 and Carema, that was sold to 3i Group in April 2005. See Table 3 for an overview of the buyout periods. To be able to understand if the potential changes in operational efficiency actually are caused by the buyout and are not just the result of macroeconomic fluctuations we create a static peer group consisting of three of the largest private for-profit homes at the time of the buyouts. These were chosen based on their amount of revenue in order to get as similar nursing home chains as possible to allow for comparison. The chosen static peer group consists of A & O i Sverige AB, Förenade Care AB and KOSMO. To avoid bias based on the companies being bought by private equity firms differing from other private for-profit operators already before the buyout we also create a dynamic peer group. See Lundsten and Löfqvist (2011) who are using the same logic. This group consists of the companies in the static peer group but it also includes the private equity owned companies in the pre-buyout period (i.e. when they were still owned by other private for-profit companies).

We focus on two groups of metrics to measure operating performance. The first group is profit measures: *Revenue growth* and *EBIT margin*. The second group consists of ratios that are related to the largest cost of a service organization in the elderly care industry, personnel: *Personnel cost per employee*, *Revenue per employee* and *Personnel cost/Revenue*.

To get a more representative image of the buyout effects we calculate two-year averages for the pre-buyout period and seven year averages for the post-buyout period for both the private equity owned companies as well as for the two peer groups. This to capture the state of the company prior to the buyout as well as the effects of the private equity ownership; seven is as close we get to the previously mentioned average holding period of nine years. We use the seven years even though all three companies have changed owners during that time since we are interested in the general effect of private equity ownership, and hence it should not matter which private equity firm it is that currently holds a certain company. These averages are calculated as:

$$PE_{pre} = \frac{PE_{-1} + PE_0}{2}$$

$$PE_{post} = \frac{PE_1 + PE_2 + PE_3 + PE_4 + PE_5 + PE_6 + PE_7}{7}$$

The average buyout-effect is then calculated as

$$Buyout - effect_{KPI} = (PE_{post} - PE_{pre}) - (Peer\ group_{post} - Peer\ group_{pre})$$

The buyout-effect could thus for example be the difference between the two year average revenue growth for Carema prior to being bought by 3i Group and the seven year average after being bought by the private equity firm, compared to the same averages for the dynamic or the static peer group.

4.3.2 Profits

Private equity companies are often criticized for being too focused on short-term profits, seeing that they have an exit planned. In order to understand what the profit driven companies actually do with their profits we study the changes in equity for each of the seven years post-buyout. Through this we get an indication of how the private equity owned companies distribute their profits and can compare it to other private for-profit operators. What we mainly are interested in is if it differs concerning how private equity owned companies handle profits compared to private for-profit companies when it comes to dividends versus reinvestment of profit in the operations, as reinvestments could be seen as a more long-term engagement as opposed to lifting the profit as dividends. The equity analysis will first focus on the elderly care companies in each of the private equity owned company groups as well as the private for-profit operators. Then the same type of analysis will be applied to all the direct mother companies in the private equity owned groups (Aleris, Attendo and Carema) to see if profits flow up through the groups and if so, how they are distributed there.

4.3.3 Leverage

Another possible way for profit driven investors to use profits is to pay off debt over the investment horizon. This could also be seen as a type of dividend since lower debt would mean lower interest payments and higher profits as well as a less levered company to sell at exit. We start by mapping the leverage structure for the three private equity owned company groups post-buyout. This is also done for the private for-profit companies to use as a benchmark. The analysis will then be focused on the longest available holding period, this since we are interested in seeing how leverage structure changes over the investment horizon of a private equity investor. For Aleris and Carema this corresponds to 2005-2009 and for Attendo the period is 2007-2011. What we will look for is which company or companies in the group has the typical leveraged buyout structure with a high D/E-ratio. We also study how debt changes over time to see if the debt level is decreased. To understand if profits systematically are used for paying off debt we look at the cash flow before financing as well as reported amortizations. A high positive cash flow along with large amortizations of the debt could indicate that the cash flow is (partly) used for the purpose of decreasing debt.

5 Results

In this section we will present the results from our study. First we will present the outcome of the 11 conducted interviews. Then we will turn to the results from the analysis of the quality data to see if there are differences in quality based on operator type. Lastly we will look at the financial analysis to understand if private equity operators differ in financial performance compared to other private for-profit operators. All the results will then be discussed in the Discussion section.

5.1 Interviews

In the following section the outcome of the 11 interviews will be presented. This will be structured around the areas Value creation and financial performance, Profits and reinvestments, Quality, Corporate governance, Outside views on differences based on operator type and The impact of privatization.

5.1.1 Value creation and financial performance

If a municipality chooses to open up for competition there has to be incentives for investors, other than the municipality itself, to enter into the industry. The main attractive feature of the elderly care industry according to the private equity investors seems to be growth. This growth stems from two different sources, one is the aging population and thus an increasing demand for elderly care, and the other is the dissolution of the public monopoly enabling private actors to enter the market. Regarding the for-profit and non-profit operators, half of them also mention the dissolution of the monopoly as the main attractive feature while the other half focuses more on the opportunity to help people in need as the reason to invest in this industry.

Both the private equity operators and the for-profit operators have to work with creating value in their investments. For the private equity investors one of the most important success factors in order to create this value is finding the right people and managing them in the best way. Staffing and management are seen as critical factors in becoming more efficient. However, one private equity representative points out that finding good managers is a challenge in the care sector. The possibility to professionalize the organizations through for example coordination of administration is also mentioned as a way to create value in the investments. As a private equity investor, the economies of scale that can be gained from acquisitions of smaller players and from winning more contracts are also key value drivers. The private for-profit operators name cost focus as their main strategy for creating value. For the non-profit operators financial value is not the primary target of their operations. Their aim is for the operations to be self-supportive or to

have a small margin in order to be able to cover necessary investment and to grow their business. Nonetheless, all the operators work with monthly follow-ups on financial targets, some use balanced scorecards, that are processed with management and/or with the heads of units.

Regarding how the profit driven organizations can create financial value, the professor at the Department of Social Work mentioned that it is not possible to increase revenue per elderly since the municipality sets the payment level, the only way to noticeably increase profit per elderly is to lower costs. Since costs are mainly connected to personnel this is where the companies can affect their margins. This can be done either through reducing the number of staff, lowering wages or lowering the level of education. Lowering wages is not so easy in Sweden so the other two options are more likely to be seen.

Seeing that growth is the main reason for the private equity investors to enter into this industry they need to have ways of taking part of that development. This seems to be done both through organic growth by focusing on winning as many contract procurements as possible as well as through acquisitions. For both the for-profit and the non-profit operators the main or only focus is organic growth, either in terms of expanding geographically or into other segments.

5.1.2 Profits and reinvestment

Turning to the question of how profits are distributed in the different organizations, all profits are said to be reinvested in the operations for the private equity owned firms and for the non-profit operators. The private for-profit operators are more open to dividends. These policies are said to be fairly stable over time for most of the interviewed operators except for a few of the for-profit and private equity owned operators.

5.1.3 Quality

Quality can mean different things to different people, but when looking at how the representatives describe what quality means to them the answers actually differ based on operator type. The representatives for the private equity and for-profit operators mention fairly measurable things, such as satisfied users, good management, safety and attitude of staff. The non-profit operators stand out in this question seeing that their answers focus more on the elderly as separate individuals, mentioning things such as individualization of care. The two ways of answering could be seen as a macro and micro focus on the quality. This might to some extent be explained by the sheer differences in size of the organizations, the private equity operators have a turnover of at least twice the size of the non-profit organizations. Nonetheless, the size difference is not as noticeable between the non-profit and for-profit operators.

In terms of the actual actions used in order to secure the quality of care, almost all of the operators have a structured approach in how they work with quality issues. The actions range from quality managers and internal audit systems to educational programs and leadership development. Many of the operators have the same monthly follow-up process for quality as they do for financial results. The type of quality work does not seem to be dependent on the type of operator.

All of the operators in this sample seem very focused on quality and quality follow-ups. In municipalities where the Model of Choice has been introduced, the way to measure quality becomes a key aspect since it affects the basis of the elderlies' choices through the open comparisons available on the municipalities' websites. The interviewed professor points out that the introduction of competition could in itself be an issue for care quality since when other operators are allowed to enter into the sector the municipality loses some of its control over the nursing homes and thus the municipality's need to control the new operators through follow-ups increases. In case the way of measuring quality is through standardized checklists with key metrics care quality may decrease since flexibility and thus individualization of care is lost. The checklists become more important than what the elderly individual wants. The representative from the Stockholm city management offices also highlights the difficulties with measuring quality but mentions that one thing they have seen to be positively related to the experienced quality is the level of job satisfaction among employees.

5.1.4 Corporate governance

When looking at the results from the questions regarding corporate governance, the first thing that is noticeable is the different focus of the governance models based on type of operator. The private equity companies generally use a standardized model that is described as very clear, uses industry experts and other external members of the board and creates accountability in the organizations. The for-profit and one of the non-profit operators describe their models as decentralized where the management works close to the operations. All of the representatives state that they use dynamic models that can change based on the needs of the organization and also the non-profit organizations seem to be adjusting more to a competitive market.

5.1.5 Outside views on differences based on operator type

The representative for the largest union for care workers in Sweden points out that it is difficult to know what is cause and effect when talking about operator type and how it affects the employees at the nursing homes. Still, what they have noted is that union members that have

been part of going from a municipality operated organization to a private and profit driven one report that staffing levels have gone down. What has been positive with the private equity actors though, is that they are good at reducing the number of bad managers in the organizations. In terms of differences regarding employment contracts and union representation, the union's goal is to make this as independent of operator type as possible. One difference between the operator types was found in the interview with the quality manager from Solna municipality and that regards the bidding process. Both private equity and private for-profit operators are accomplished at this but the private non-profit operators are not yet seen as equally skilled. However, in terms of the quality of care delivered they cannot see a difference based on operator type in Solna. From their point of view quality has more to do with the individuals working at each nursing home.

5.1.6 The impact of privatization

All representatives for the private operators are positive to the privatization of the elderly care sector. The quality manager from Solna emphasizes that it is necessary with competition since in a bidding process the bidders need to review all of their processes and procedures in order to compete. This results in improved quality and new working methods being developed. The professor at the Department of Social Work agrees but emphasizes the fact that once you have broken up a monopoly and accepted profits it is very hard to back out of it. However, when focusing on the particular introduction of private equity the answers differ a bit more. The private equity investors are, not surprisingly, positive to private equity in elderly care, mentioning things such as increasing financial efficiency and investing great amounts of capital into developing the business. The other operators' representatives are a bit more restrictive. The private for-profit representatives believe that private equity investors drive a positive change in the sector but they, along with the non-profit representatives think that the bad media that the private equity operated nursing homes have received recently has damaged the reputation for all private operators in the industry. All of the interviewed representatives, irrespective of which organization they belong to, believe that it is possible to be a profit-driven organization but at the same time deliver high care quality. The representative from the Stockholm city management offices highlights that good quality does not ultimately depend on profit margins but rather on having the right people and managers in place.

5.1.7 Concluding comments

A lot seems to be happening in the elderly care sector both in terms of how to work efficiently with regard to the financial side of running operations as well as adjustments of the corporate

governance model. Especially, there is an ongoing development concerning quality work where all of the interviewed representatives truly appear to strive towards improvement in their different fields through new systems, methods and follow-ups. Several of the interviewees are positive to the introduction of private alternatives and are seeing this as a driver of the change that is currently ongoing in the sector. What does seem to be the bottom line is that it is not operator type that primarily affects the quality of care, but rather the people, the working environment and the leadership that is in place at each nursing home.

5.2 Quality analysis

In this section we will present the results from each of the four quality datasets analyzed. In all the regressions the private equity dummy has been omitted, thus the results for municipality, private non-profit and private for-profit operated nursing homes seen in Tables 4-8 are all relative to how the private equity nursing homes have performed. For regressions on single variables please see Tables (viii)-(xii) in the Appendix.

5.2.1 The national user surveys

Seeing that the national user surveys have been changed between 2011 and 2012 the data from these have been treated as separate datasets. The results will therefore be presented separately for the two years.

5.2.1.1 National user survey 2011

For the NCI the results indicate that perceived quality does not depend on the type of operator that runs the nursing home. There are no significant results for any of the variables in either the regressions without controls or the robustness regressions. This is also confirmed based on the conducted F-tests. See Tables 4a-b for results.

5.2.1.2 National user survey 2012

In general the 2012 National User Survey produces some significant and robust results for the grouped variables, all of them concerning the private for-profit nursing homes. There are no significant and robust results for municipality, indicating that there is no difference between private equity operated homes and municipality operated ones in this dataset. For the private for-profit homes five of the twelve grouped variables show significant results in the robust regressions, all of them positive. This points to that private for-profit operators receive higher ratings compared to private equity owned operators in Overall assessment, Food and Influence (10 percent level) and Confidence in staff and Care efforts (1 and 5 percent levels respectively). These results are also robust when looking at the output from the regressions of the single

questions. Turning to the F-tests, what can be seen is that four out of the five show significant results where private for-profit outperforms municipality in all of them. See Tables 5a-b for results.

5.2.2 User surveys from the municipality of Stockholm

Starting with how municipality operated nursing homes perform relative to private equity operated ones. Two out of four grouped quality indicators show significant, robust results. For both of them the coefficients are negative, indicating that municipality operated homes underperform the private equity operated homes on these two grouped indicators. Private equity homes get significantly better scores for the groups Activities and Food. These results are robust on a 1 percent and 10 percent level respectively.

For the private non-profit operators there are few significant results and none are robust to the addition of control variables. Thus no difference can be seen between private equity and private non-profit in these variables.

In the private for-profit group several significant, robust results can be found and for all of them the coefficients are positive. This indicates that private for-profit outperforms private equity on all of these quality indicators. Private for-profit scores significantly higher than private equity on Satisfaction with the nursing home (5 percent level) and more specifically this concerns the areas of Staff (5 percent level), Influence (1 percent level) and Overall assessment (5 percent level) and these results are robust to the added controls.

The F-tests generally indicate that private for-profit operated homes outperform municipality-operated homes. These results are significant on a 5 or 1 percent level for all the grouped variables. In the areas of Activities and Influence private non-profit also show significantly better results than municipality. See Tables 6a-b for results. All the above results are also robust when looking at the output broken down on the level of single questions.

5.2.2.1 Relative changes over time

The Stockholm dataset is the one where data was available over time. Therefore it is also interesting to see if any changes in means could be found for the grouped quality indicators between the available years. The results from the T-tests can be seen in Table 7. The general takeaway is that there are many significant changes in the quality indicators between the years 2010-2012 and almost all of them are for the better. For private equity as well as for municipality nursing homes all the grouped variables have significantly improved in terms of mean values

over these years. Private for-profit nursing homes receive better results in all areas except for Staff in 2012 in comparison to 2010. Private non-profit operated homes are the only ones that show any negative significant changes. However, for most of the variables the non-profit operators show no changes. Overall, there seems to be a positive trend in this dataset concerning perceived quality of care at the included nursing homes.

5.2.3 Quality survey from the Swedish National Board of Health and Welfare

Out of the four PCA components in the NBHW's Äldreguiden only one show a significant and robust result for municipality operated homes. This concerns Risk assessment where municipality shows significantly lower scores compared to private equity nursing homes.

For the private non-profit operated homes there are no significant, robust results in the PCA components. Thus, little difference in performance can be seen between private equity and private non-profit operated homes. The same is true for the private for-profit operated homes, no significant robust results are found for the PCA components. Hence, there is no significant difference between private equity homes and private for-profit homes either.

In the F-tests two out of the four PCA components show some significant results. Private for-profit operators perform better than municipality ones on Risk assessment as well as on Influence and participation. Private non-profit operators also perform better than municipality operators on Risk assessment. See Tables 8a-b for results.

When splitting the grouped variables into the single variables we see a few more significant and robust results that cannot be seen in the grouped variables. Municipality nursing homes underperform private equity homes on Participation in activity and Hygiene facilities (1 and 5 percent levels respectively) and private for-profit operators outperform private equity operators in Adequately trained staff (5 percent level).

5.2.4 Impact of control variables

Since we have only found a few significant results in the regressions based on operator type and that the R^2 generally has been low in the regressions without controls, we also would like to highlight a few of the control variables used in the robustness regressions. This since some of them generally show more significant results than operator type and seem to add to explanatory power. One control variable that stands out is the size proxy. This variable is significant in several of the regressions where it is used. In most cases it has negative impact on quality, meaning that the larger the nursing home the poorer the quality. However, the impact is very

small yet persistent. Still, it is important to remember that size could be an active choice made for example by the private equity investors. Interesting to note is that in the datasets where the condition proxy is available it is instead this one that is significant most often and not the size proxy. Wherever it is significant it indicates a positive impact on quality, the older a user is the more positive he/she scores quality but again the impact is generally small.

5.2.5 User surveys in relation to process and structure measurements

To understand the relationship between the different types of quality measures we tested the process and structure measurements on one hand against two overall result measures on the other. What can be noted is that the correlations between the structure and process measurements and the overall user assessments, here represented by the variables NCI and Satisfaction with the nursing home, are generally very low. Also, when regressing the structure and process measurements against the overall user assessments none of the measurements are significant for NCI and only two are significant for Satisfaction with the nursing home, see Tables 9 and 10. The significant variables are Prevention of falling plan that has a small positive impact on overall satisfaction and Staff turnover that has a larger negative impact on overall satisfaction. Based on these results, there does not seem to exist a general relationship between how a nursing home scores on the process and structure measurements and the home's results when the elderly users score it. Still, measuring staff turnover and to some extent risk assessment seems to be valuable for understanding experienced quality.

5.3 Financial results

In this section we will present the output from the financial analysis of the private and profit driven types of operators. We start by presenting the results from the analysis of operating performance in order to see if there is a difference between private equity owned operators and private for-profit operators. Next, we turn to the equity in the companies and present the changes in equity to show how profits are distributed. Finally, we look at the debt levels of the companies and how the leverage changes across the investment horizons. This to understand the leverage structure in the private equity owned care groups and to investigate if profits are used to pay off debt.

5.3.1 Operating performance

Findings from the cross sectional comparison of key performance metrics pre- and post-buyout can be found in Table 11. In order to more easily interpret our results we show the relative performance of each of the private equity owned nursing operators to the static and the dynamic

peer groups in Table 12. More detailed results can be found in Tables (xiii)-(xvi) in the Appendix, where we show the operating performance metrics pre- and post-buyout on a year-to-year basis.

In terms of *Revenue growth* we find that the private equity owned nursing home operators have underperformed their static peer group with an average of -17.21 percent. A large part of the negative growth number comes from the large decline in Carema's revenue post-buyout. These results are in line with the results relative to the dynamic peer group (-15.01 percent). This could be explained by that the companies bought by private equity investors in this sample generally are larger than the other private companies and hence, the relative growth is lower for the private equity operators compared to the smaller private for-profit operators. However, all the companies in the sample have seen quite a large growth over the past years.

EBIT margin has improved for the private equity owned nursing home operators post buyout relative to their static peer group with +10.32 percent (mean). Noteworthy is that all three of the private equity owned nursing home operators have outperformed the static peer group post buyout. These results are also consistent when comparing them to the dynamic peer group (+6.11 percent). The larger relative increase in EBIT margin than private for-profit operators suggests that the private equity companies have gained more from operational engineering and thus have managed to enhance operational efficiency in their portfolio companies.

Revenue per employee has increased relative to the static peer group with a mean of +102 711 SEK. All three private equity owned nursing home operators have outperformed the static peer group. These results are consistent when compared to the dynamic peer group. The private equity owned nursing home operators outperform their dynamic peers by +7 501 SEK. This implies that a private equity buyout on average seem to lead to higher revenue per employee, which might here be explained by a higher increase in revenue than in staff.

Personnel cost per employee has increased relative to the static peer group, with a mean of +33 261 SEK. Carema is the only private equity company who has decreased personnel cost per employee relative to the static peer group. These results are not consistent with the dynamic peer group where the results instead are the opposite from the static peer group. The private equity owned nursing home operators have decreased personnel cost per employee relative to the dynamic peer group by -673 SEK. In this case, both Carema and Attendo have lower personnel cost per employee than the dynamic peer group. These results indicate that private equity owned nursing operators, on average, decrease personnel costs more than their dynamic peers post-

buyout. On average we cannot see a large impact of private equity ownership Personnel cost per employee in this sample.

Personnel cost/revenue decreased for the private equity owned nursing home operators relative to the static peer group (-8.74 percent). All three private equity owned operators decreased personnel cost/revenue compared to the static peer group. Also when comparing to the dynamic peer group, the private equity owned nursing home operators have on average decreased personnel cost/revenue, however not as much (-1.96 percent). Only one out of the three private equity companies have decreased the metric relative to the dynamic peers. Overall, these results indicate that private equity companies have on average been able to reduce costs relative to revenue in this sample.

5.3.2 Profits

In order to understand what the two types of profit-oriented operators use their profits for, the changes in equity have been analyzed. The output can be found in Tables 13a-d, for more detailed information see Tables (xvii)a-f in the Appendix. Starting with the dividends, one can see that in the elderly care companies that are owned by private equity owned care groups almost no dividends are paid. After the companies were bought by private equity investors in 2005 one dividend was made in 2005 and one in 2006. When looking at the private for-profit companies it looks very similar for two out of three companies, only a few dividends have been paid over the past years. The third private for-profit company however pays dividends each year. For the private-equity owned operators, which all are part of larger company groups, the profits could instead be taken out of the elderly care company through group contributions. For two out of the three private equity owned companies relatively large group contributions can be seen across the years after buyout. For the third company the pattern is not seen, this might however be connected to the fact that this company does not have any profits to distribute at all. Turning to the change in equity between the years, the outcome could indicate if the profit is reinvested in the companies or if it is given out as dividends. What can be seen for the private equity owned companies is that this change in equity level is positive in slightly more than half of the years reported and negative in the rest. When the change in equity level has been negative between two years it most often has to do with either a negative profit or with a group contribution that is higher than the profit. When the change has been positive it is most often due to that the group contribution is less than the profit or that equity has been increased through shareholders' contributions. For the private for-profit companies that do not pay dividends it seems as though practically all profits are reinvested in the operations since the change in equity is positive for

most of the years. The third private for-profit company is more similar to the private equity owned companies with changes that are switching between positive and negative over the years.

Hence, for the private equity owned companies some of the profits are reinvested directly in the elderly care companies and some goes up in the company group. Thus, we look further up in the group structure for the private equity owned companies. What can be seen in general for the three private equity owned groups is that almost no dividends have been paid in any of the groups' companies. Based on this, the group contributions from the elderly care companies do not seem to be moved up in the group structure in order to become dividends higher up. It is therefore likely that the profits from the elderly care companies are reinvested in other parts of the care company groups.

5.3.3 Leverage

Since we did not see that the private equity owned companies systematically distribute profits as dividends it may be worth investigating if they instead use them to pay off their debt. See Tables 14a-d for results, for more detailed information see Tables (xviii)a-f in the Appendix.

Since this part concerns how the debt structure changes over the investment horizon, we have chosen to focus on the longest available investment horizons for the private equity owned companies and compare the results with the corresponding years for the private for-profit firms. Quite dispersed trends can be seen for the three private equity owned elderly care companies in terms of how their financial structure has changed over the investment horizons. Two of them have increased equity and decreased debt over the horizon, which has led to a decrease in the D/E-ratio of -0.47 for Aleris and -25.17 for Attendo (debt has decreased with -28 percent and -10 percent respectively). The radical change for Attendo probably has to do with the company entering the Finnish market in 2007 and thus equity have increased partially through the large acquisitions (see the Annual Report for Aleris, 2007). Carema has gone the other way by decreasing equity and increasing debt (+38 percent) and thus have a D/E change of +0.62. In general for these companies the D/E-ratios are quite low. Turning to the private for-profit companies, all of them have increased their debt levels over the two investment horizons. Two out of the three have also increased their D/E-ratios, while the third has decreased the ratio slightly but simply because equity has increased more than debt.

In order to understand if decreases in debt levels have come through the use of profits we look at the cash flow prior to financing as well as amortization of loans. A high cash flow prior to financing combined with high amortizations could indicate that the year's profits may partially be

used for paying off debt. However, when looking at the elderly care companies owned by the private equity investors no amortizations can be found during the investment horizons. Worth noting is also that the majority of debt in all three companies is short-term debt. In the private for-profit companies the pattern of positive cash flows prior to financing combined with amortizations can be found for several of the years with available data. Thus, it could be the case that they use some of the profits to pay off debt.

Based on the theory on leveraged buyouts the debt levels should be relatively higher than can be seen in the elderly care companies owned by private equity investors in this sample. Therefore it is interesting to look at the D/E-ratios higher up in the group structures. When doing this it turns out that all the three private equity care groups have one company in their structure that is relatively more levered than the others. For Carema and Aleris this corresponds to the top company in the structures, Carema Holding AB/Ambea AB and Aleris Holding AB and for Attendo it is the company that is second to the top, Attendo Intressenter AB. What is worth noting is that all three highly levered companies have increased their debt over the investment horizons. The D/E-ratios decreased for all except for Carema Holding AB/Ambea AB due to a large increase in equity. Based on the information from the cash flow statements there does not seem to be a general indication that any of the companies in the groups use yearly profits for amortizations either.

6 Discussion

In this section we will discuss our results in order to find general patterns or conclusions from all the three parts regarding any differences originating from an operator being of a certain type. We start by discussing the quality, both based on what was found in the quality data analysis and on what was said in the interviews regarding the topic. Then we focus on the financial performance analysis and link in the relevant points from the interviews. Finally, we discuss the views on privatization in the sector.

6.1 Quality

What generally can be seen in the analysis of differences in quality based on operator type is that there are few significant results in all of the four tested datasets. Thus overall we cannot say that quality in general differs with regards to the operator type. A possible explanation to variations in quality across nursing homes could instead be the individuals working at each home and their current working environment, as was mentioned by several of the interviewed representatives. One could argue that it is the responsibility of the owners to make sure that they find the right leaders who can create an inspiring working environment and employ the most suitable staff. However, as pointed out in the interviews, finding good managers appears to be a challenge in the entire care sector and even though private equity investors are recognized in the interviews as skilled at replacing bad managers, finding the best ones for the job might still prove difficult for all operator types. Nevertheless, some results from the quality analysis were still found significant in terms of differences between operators. They indicate that in some cases the private for-profit homes receive higher scores than both private equity and municipality homes. It also turns out that private equity owned operators generally outperform municipality nursing homes in the significant results. This is consistent over both result measurements as well as process and structure measurements but the majority of these results are found in the Stockholm dataset. Interestingly, these results, with private operators having slightly better quality than public operators, are opposite of the results in the previous research from North America. However, it is not contradicting the results from the NBHW study of Swedish nursing homes, so it could be that country specific traits, in terms of for example financing of welfare services, explain at least part of the differences. Also, in our study we analyze other quality measurements than the North American studies. The fact that the main part of the significant results stems from the analysis of the Stockholm dataset might have to do with that privatization is more widespread in Stockholm than in the rest of Sweden. The result could also be impacted by municipality specific traits such

as income level and political opinions that are more in favor of private alternatives compared to the overall average in Sweden.

In the dataset that was accessible over time it is interesting to note that even though the reputation of the sector has been badly affected over the past years, as was mentioned by several interviewees, this does not seem to have affected the experienced quality. In fact, in spite of the Carema scandal in 2011 the experienced quality has increased for all types of operators between 2010 and 2012 except for the private non-profit operators. It could be that after the scandal quality of care became even more of a priority for nursing homes which then shows up as increased experienced quality. The increase can especially be seen for private equity and municipality operators. It could also indicate that the increased competition drives all operators to perform better, something that was mentioned in the interview with Solna municipality. A sign of the impact of competition is the ongoing changes in the private operators' governance. In the interviews we saw that all the private operators have governance models that are dynamic or are moving towards becoming more responsive to market changes.

It is important to note that for the result measurements the differences found are very small between the operator types even though they are significant. However, for the significant process and structure measurements the differences are relatively larger seeing that they reflect percentages whereas the results measurements reflect ratings (either on scales of for example 1-5 or indexed). One possible explanation for this could be that it might be easier to affect the process and structure measurements since they are more connected to the specific actions of a nursing home and can more easily be ticked off a list than the result measurements. For example, it is easier to do a risk assessment than to affect the attitudes of the elderly users. A private nursing home has to receive good results in the quality surveys in order to attract elderly users and to win contracts. Many of the municipality nursing homes are still not exposed to competition and thus do not have to pay as much attention to the specific quality measures compared to private operators, as they do not have to attract users based on ratings but will receive users anyway.

The difference in the relative size of the results for the process and structure measurements on one hand and the results measurements on the other is most likely connected to the fact that we do not find any strong connection between the types of measurements. The regression between the dataset of process and structure measurements, Äldreguiden, against the NCI result measurement does not show any significant results. Further, the regression against the 2012

National User Survey indicator Satisfaction with the nursing home only shows two significant results. Thus, the different types of measurements seem to measure different sides of quality. This may not be so strange since for example a risk assessment does not affect the everyday satisfaction of an elderly individual but without it more accidents might occur. This also shows that it is not easy to find one satisfactory measurement of quality in elderly care as was also mentioned in the interviews. Still, the Staff turnover and to some extent Risk assessment seem to be connected to experienced quality.

In the outcome from the interviews we find some answers that potentially could explain part of the significant differences found in the quality analysis. One factor that could explain why private for-profit operators consistently outperform private equity owned operators in the significant results regarding result measurements might be the different corporate governance structures, which were mentioned in the interviews. The more decentralized structure of the private for-profit operators, with the top management close to the operations, could have a positive impact on company culture. More autonomous units may increase flexibility in the care of the elderly and thus enhance the experienced quality. Another factor could be the indication of a slightly lower fraction of adequately trained staff in private equity operators compared to private for-profit operators as also was mentioned in one interview.

One thing that could be holding back the quality development in the municipality operated homes compared to the private alternatives is the difference in the possibility of information sharing within the organizations. A care company group operating nursing homes across the country can use the experience of all their homes in order to improve their activities. However, a municipality operated home in a municipality in one part of Sweden is not as likely to be able to access good ideas of a nursing home in a completely different part of the country.

As for the private non-profit homes, we have not found almost any significant results. This might however have to do with the relatively much smaller sample of this type of nursing homes.

6.2 Financial performance

Turning to the financial analysis, what generally can be seen in this sample is that private equity ownership has a positive impact on operational efficiency as EBIT margin has increased and personnel costs/revenue has decreased more than for the peer groups. This result is in line with previous research concerning the effects of private equity ownership on operating performance. These types of changes can be explained by either an increase in revenue or a decrease in costs. What can be seen in the results is that revenue per employee has increased relatively more than

personnel cost per employee for the private equity owned operators. One way for operators to increase revenue is through winning more contracts, as was mentioned as one of the top goals by the private equity representatives. Interesting to note is that even though revenue growth is relatively lower for private equity owned operators compared to private for-profit operators, they have still been able to increase revenue per employee more than their peers. On the cost side, personnel cost per employee has increased relative the static peer group, and decreased slightly relative the dynamic peer group. Thus, private equity ownership does not seem to have a large effect on personnel costs in this sector. However, the change in EBIT margin is larger than the change in personnel costs/revenue and thus private equity owned operators probably have been able to decrease costs elsewhere, for example administration costs as was mentioned in the interviews. The noted efficiency improvement may not be so unexpected since professional investors, that are experts at value enhancing activities such as staffing and taking advantage of economies of scale, own the operators.

One fairly common critique of private equity ownership in welfare industries is short-termism. However, practically no dividends are paid in the private equity owned care companies in our sample, though it can be found for some of the private for-profit companies. In the private equity companies the profits from the elderly care companies instead go up in the company group and, from what can be seen in this analysis, are reinvested there. The reinvestment of profits is confirmed in the interviews with the private equity representatives. We also investigate whether profits seem to be used for paying off debt, but when looking at the leverage structure in the private equity owned companies no clear pattern can be seen regarding this. For some years it is possible that profits from the elderly care operations have been used to pay off debt but they do not seem to be systematically used for this purpose. Thus it does not appear to be the case that profits are simply handed to the private equity owners, either in terms of dividends or in terms of lowered debt, instead of being reinvested in the operations, actions that otherwise could be seen as signs of short-termism.

6.3 Privatization

As for the impact of privatization on elderly care, most of the interviewees believe that competition has been positive for the industry, and the general improvement found in the Stockholm dataset over the past few years could possibly be evidence of this. One underlying development could be an adjustment of corporate governance models to become more responsive to new market conditions, which also is a possible sign of professionalization in the sector. Regarding the introduction of private equity the opinions are more dispersed, on one

hand private equity investors are seen as driving a positive change in the sector and inducing needed capital but on the other hand the media scandals concerning them are seen as having damaged the reputation of the entire sector. In spite of this, all the interviewed representatives expressed that it should be possible to combine profit objectives with a high quality of care.

7 Limitations

Seeing that the privatization in elderly care in Sweden still is confined only to some municipalities there are limitations to our results. This is mainly due to constraints in the data. Regarding the quality data we have not been able to access national data that covers several years because the data does not exist or because the surveys have changed and thus cannot be compared. It would of course be preferable to have panel data, giving more substance to the analysis and enabling comparison also across time. For the national user surveys we might also find more substantial results if we would be able to access the full datasets. Looking at the distribution of the homes based on operator type one can see that a vast majority are municipality nursing homes and very few are private non-profit homes. We think that this distribution truly reflects the current state in Sweden, but for the sake of the analysis a more balanced distribution would have been preferable. Another improvement would be if quality data was available over the time around the buyout in order to better isolate the effects of the actual takeover by a private equity investor. In the Stockholm dataset one can find a few nursing homes that have changed operator over time (due to new procurements of the contract) but the sample is too small to test. In terms of the quality survey data one could also question the quality of it seeing that many of the respondents are not the actual users but relatives or other people close to the elderly person. It could be so that the data is biased since the relatives might not know the true state of the experienced quality but can only report quality based on what they know. Further, in all regressions the R^2 is low and thus the variables used cannot explain that much of the variation in quality. Hence, there are probably other factors that can better explain these variations. We believe that one such thing could be satisfaction among employees.

Turning to the financial analysis, we have very few companies to analyze. A larger sample of both private equity owned companies as well as private for-profit ones would allow for a more robust type of analysis and probably produce clearer results. Even though we find patterns in the financial analysis we see that in some cases one of the companies in the operator groups stand out in the opposite direction compared to the other two companies in the same group. A larger sample would make the averages converge to the true mean.

8 Conclusion

In this study we find that there are no large differences in terms of the quality of care between the four types of operators. However, in the few cases where we find significant results they generally indicate the same thing, private for-profit operators outperform private equity owned operators who in turn outperform municipality operators. We find almost no significant results regarding the private non-profit operators. What is interesting about this is that it points in the opposite direction of the North American research on the topic. Nonetheless, it is important to remember that there are large differences between countries when it comes to financing of welfare services. This can probably explain some of the differences in the results as we do not contradict the result of the NBHW report on Swedish elderly care. On the financial side, private equity owned operators appear to be better at increasing margins which mainly stems from a higher increase in revenue than in costs compared to private for-profit operators. This is in line with previous research indicating that private equity ownership increases operating performance. Also, there seems to be differences between operators in terms of governance structure where private non-profit and private for-profit operators are more decentralized than private equity operators. We believe this to be one of the underlying reasons for the noted differences in quality and operational efficiency. Concerning the criticism against private equity investors regarding short-termism, in our sample, profits seem to be reinvested in the private equity owned companies and not used for paying off debt, as is similar to the private non-profit companies. In our overall results we see signs of value enhancing activities typical for private equity owned companies in the form of governance (change of management), operational (staffing and administration) and financial engineering (high leverage).

Many of Sweden's municipalities are currently discussing whether to open up for competition or not and we believe that we will see a lot of developments in the sector in the near future. For example if more municipalities will choose to apply the Model of Choice there will be new market shares for private actors to compete for and thus increase revenue even though it, as pointed out, is difficult to increase the revenue per elderly individual. Based on the current state it is likely that the occurrence of private investors in the elderly care sector will increase seeing that they are interested in the steady growth of the industry. However, as we have seen in this study the elderly care sector is not a high margin industry why it probably will be investors that view elderly care companies as an interesting and more long-term addition to their portfolios or professionals from the care sector that will invest rather than those who are interested in high short-term profits. Furthermore, there is a high risk connected with investing in a sector that is

the target of an ongoing political debate, where the policies regarding profits in welfare companies could change already by the 2014 election.

Based on our overall findings there does not seem to be an evident trade-off between profits and quality, which also is in line with the consensus in the interviews, it might have more to do with employing the right people and creating a pleasant and inspiring working environment at each nursing home. Thus, we see no reason why private equity investors would not be suitable owners in the elderly care sector as they are more efficient while delivering the same quality of care as other operators. However, we believe that more research is needed on the subject in order to create a more nuanced and fact based debate on the subject of privatization in the welfare sector in Sweden.

8.1 Suggestions for further research

First and foremost it would be interesting to repeat the same study that we have conducted in a few years, simply because the access to quality and financial data will increase over time. A development of this study could be to look at the fraction of unsatisfied users and see if operator type could explain any of the variations across nursing homes. To focus on this lower tail of the user survey results might be interesting since it probably is more important to understand if an operator type is consistently connected to less satisfied users than the others. Another interesting area is the impact of the two different ways of opening up for private alternatives, this since most of our significant results are found in Stockholm, where privatization is widespread with both of the models in place. One could think that the Contracting Model increases uncertainty for the operators, not knowing if they will win the contract again, while the Model of Choice decreases the municipalities' control over the business and thus increasing the need for stricter follow-up processes. The study we have conducted has only focused on the elderly users as well as the operators as entire units. However, since we have seen that the individuals working at each nursing home seem to be important for quality it would be interesting to investigate how they perceive their working environment and if this differs based on operator types. We have already found indications of the relationship between employee satisfaction and perceived quality in the interview with the representative from the Stockholm city management offices and further research on the subject could complement the results of this study.

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10 Tables

Table 3 - Timeline of sample buyouts

Year	2003	2004	2005*	2006	2007	2008	2009	2010	2011	2012
Aleris										
Attendo	Pre-buyout									N/A**
Carema										

* 2005 is included in the Post-buyout period since all of the transactions occurred early 2005

** At the time of the analysis the 2012 annual reports were not yet available

Note: Shaded area represents Post-buyout period

Table 4a - Regression results from NCI 2011 data

	NCI		Safety in the nursing home		Information		Attitude		Influence		Safety		Extent of assistance	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Municipality coeff	0.469	0.252	0.591	0.334	-0.088	-0.464	-0.224	-0.347	-0.918	-1.126	-1.050	-1.302	0.283	0.062
(s.e.)	(1.575)	(1.529)	(1.527)	(1.435)	(2.059)	(1.973)	(1.392)	(1.348)	(1.933)	(1.862)	(1.426)	(1.321)	(1.648)	(1.585)
Non-profit coeff	3.862	2.036	1.100	-0.645	-0.808	-3.879	1.069	0.188	-2.084	-3.675	-0.476	-2.150	0.807	-0.863
(s.e.)	(2.773)	(3.392)	(2.337)	(2.973)	(4.371)	(4.326)	(3.758)	(4.210)	(4.066)	(4.787)	(2.707)	(3.296)	(4.460)	(4.952)
For-profit coeff	2.065	1.241	0.766	0.223	0.412	-0.921	2.092	1.786	2.405	1.784	0.144	-0.345	3.424	2.782
(s.e.)	(2.321)	(2.123)	(2.052)	(1.915)	(2.757)	(2.889)	(2.129)	(2.147)	(2.894)	(2.880)	(2.182)	(2.028)	(2.518)	(2.315)
<i>Controlled for</i>														
Operator size		-4.686		-3.157		-7.594		-1.767		-3.561		-2.859		-3.684
Size proxy		-0.122		-0.170**		-0.217**		-0.079		-0.127		-0.170**		-0.136*
Condition proxy														
City district														
Municipality FE	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Year FE														
Constant	67.578	74.571	79.319	85.663	56.500	68.191	74.712	77.959	61.340	67.300	74.922	80.965	72.196	78.436
Adj. R ²	0.113	0.120	0.075	0.092	0.134	0.158	0.116	0.112	0.127	0.126	0.118	0.135	0.081	0.087
No. obs.	188	188	188	188	188	188	188	188	188	188	188	188	188	188

	Food		Cleaning, washing and showering		Care efforts		Social interaction and activities		Execution of assistance		Living environment	
	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)
Municipality coeff	-0.281	-0.531	0.985	0.792	0.197	0.093	-0.380	-0.641	-0.240	-0.460	1.256	1.107
(s.e.)	(2.093)	(2.003)	(1.467)	(1.412)	(1.365)	(1.340)	(2.016)	(1.946)	(1.541)	(1.437)	(1.370)	(1.346)
Non-profit coeff	3.746	2.382	1.476	0.290	-2.144	-2.664	0.274	-1.562	2.175	1.046	-0.637	-2.155
(s.e.)	(3.077)	(3.506)	(2.979)	(3.454)	(2.344)	(2.657)	(4.773)	(5.340)	(2.657)	(3.265)	(2.004)	(2.610)
For-profit coeff	1.239	1.063	2.494	2.221	1.643	1.619	1.244	0.629	2.028	1.950	0.252	-0.590
(s.e.)	(2.772)	(2.614)	(2.230)	(2.111)	(1.862)	(1.892)	(3.026)	(2.934)	(2.254)	(2.128)	(2.109)	(1.987)
<i>Controlled for</i>												
Operator size		-1.137		-1.634		-0.199		-3.562		-0.579		-4.741
Size proxy		-0.187**		-0.136**		-0.081		-0.169*		-0.169**		-0.067
Condition proxy												
City district												
Municipality FE	X	X	X	X	X	X	X	X	X	X	X	X
Year FE												
Constant	60.432	65.046	71.553	75.732	81.763	83.461	56.449	63.186	71.913	75.636	77.074	83.108
Adj. R ²	0.128	0.135	0.155	0.161	0.016	0.012	0.153	0.160	0.133	0.146	0.076	0.077
No. obs.	188	188	188	188	188	188	188	188	188	188	188	188

*** significant at 1 percent; ** significant at 5 percent; * significant at 10 percent

NCI - National Customer Index

Note: Each column represents the coefficient estimates from an OLS regression with robust standard errors.

Table 4b - F-tests of regression coefficients from the NCI 2011 analysis, p values

	NCI	Safety in the nursing home	Information	Attitude	Influence	Safety	Extent of assistance	Food	Cleaning, washing and showering	Care effort	Social interaction and activities	Execution of assistance	Living environment
Municipality vs Private for-profit	0.622	0.950	0.862	0.303	0.274	0.624	0.198	0.506	0.458	0.358	0.653	0.228	0.365
Private non-profit vs for-profit	0.820	0.773	0.495	0.704	0.260	0.598	0.465	0.731	0.592	0.141	0.691	0.788	0.598
Municipality vs Private non-profit	0.598	0.737	0.424	0.899	0.591	0.799	0.852	0.410	0.884	0.298	0.867	0.643	0.196

Table 5a - Regression results from the 2012 National User Survey with grouped variables

	Overall assessment ^a		Food		Staff		Felt offended by staff ^a		Influence ^a		Extent of assistance		Safety		Confidence in staff ^a		Activities	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
Municipality coeff	0.034	0.006	0.070	0.041	0.083	0.064	0.028	0.024	0.073	0.064	0.010	-0.007	0.070*	0.063	0.061	0.055	-0.017	-0.007
(s.e.)	(0.060)	(0.059)	(0.049)	(0.051)	0.053	0.055	(0.033)	(0.032)	(0.075)	(0.081)	(0.032)	(0.032)	(0.040)	(0.042)	(0.040)	(0.036)	0.070	0.074
For-profit coeff	0.140*	0.150*	0.119*	0.144*	0.088	0.135	0.027	0.036	0.159	0.245*	0.065*	0.044	0.088	0.107	0.151***	0.189***	0.105	0.120
(s.e.)	(0.072)	(0.084)	(0.068)	(0.081)	0.081	0.091	(0.043)	(0.047)	(0.114)	(0.137)	(0.039)	(0.046)	(0.058)	(0.069)	(0.057)	(0.061)	(0.079)	(0.089)
<i>Controlled for</i>																		
Operator size		0.081		0.144		0.176		0.044		0.253		0.003		0.055		0.110		0.029
Size proxy		0.001		-0.002		-0.003		-0.001		0.000		0.000		0.001		-0.001		0.002
Condition proxy		0.128		-0.118		0.099		-0.072		0.681***		-0.250***		-0.014		0.150**		0.410***
City district																		
Don't know		0.255		-0.220		0.005		-0.052		0.339		0.032		-0.465		-0.090		-0.718**
Municipality FE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Year FE																		
Constant	4.061	3.928	3.762	3.732	3.744	3.593	2.723	2.744	3.348	2.789	2.388	2.499	4.219	4.182	3.188	3.042	3.559	3.448
Adj. R ²	0.047	0.055	0.109	0.125	0.093	0.098	0.045	0.043	0.113	0.182	0.040	0.104	0.075	0.077	0.135	0.163	0.138	0.202
No. obs.	361	335	361	335	361	335	335	335	361	335	361	335	361	335	361	335	361	335
	Loneliness ^a		Care efforts		Housing environment													
	(19)	(20)	(21)	(22)	(23)	(24)												
Municipality coeff	-0.054	-0.048	0.042	0.021	0.033	0.046												
(s.e.)	(0.039)	(0.040)	(0.055)	(0.057)	(0.031)	(0.034)												
For-profit coeff	-0.035	-0.037	0.207***	0.187**	0.006	-0.017												
(s.e.)	(0.053)	(0.056)	(0.078)	(0.089)	(0.048)	(0.058)												
<i>Controlled for</i>																		
Operator size		-0.036		0.056		-0.142**												
Size proxy		0.002		0.003		0.001												
Condition proxy		0.188**		-0.377***		0.036												
City district																		
Don't know		0.069		-0.412**		-0.357**												
Municipality FE	X	X	X	X	X	X												
Year FE																		
Constant	2.195	2.118	3.716	3.825	2.645	2.781												
Adj. R ²	0.030	0.045	0.208	0.200	0.029	0.053												
No. obs.	335	335	361	335	361	335												

*** significant at 1 percent; ** significant at 5 percent; * significant at 10 percent

Note: Each column represents the coefficient estimates from an OLS regression with robust standard errors. The condition proxy reflects if the respondent has answered for him/herself. The variables marked with ^a have not been grouped due to the different rating of response alternatives, i.e. they are the same as the single variable regressions in Table (viii)a in Appendix.

Table 5b - F-tests of regression coefficients from the 2012 National User Survey analysis with grouped variables, p values

	Overall assessment	Food	Staff	Have you ever felt offended by staff	Influence	Extent of assistance	Safety	Confidence in staff	Activities	Loneliness	Care efforts	Housing environment
Municipality vs Private for-profit	0.024	0.115	0.360	0.763	0.111	0.164	0.456	0.016	0.048	0.812	0.032	0.203

Table 6a - Regression results from Stockholms stad data with grouped variables

	Satisfaction with the nursing home ^a		Overall assessment		Activities		Food		Influence ^a		Staff	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(1)	(12)
Municipality coeff	-0.008	-0.022	-0.001	0.007	-0.230***	-0.261***	-0.132**	-0.128*	-0.105*	-0.098	-0.014	-0.008
(s.e.)	(0.053)	(0.054)	(0.048)	(0.049)	(0.069)	(0.076)	(0.062)	(0.067)	(0.060)	(0.067)	(0.049)	(0.046)
Non-profit coeff	0.194***	0.149	0.174***	0.125	0.201	0.106	0.037	0.007	0.241***	0.218	0.113**	0.066
(s.e.)	(0.067)	(0.114)	(0.062)	(0.100)	(0.124)	(0.208)	(0.085)	(0.152)	(0.086)	(0.142)	(0.055)	(0.090)
For-profit coeff	0.209***	0.204**	0.184***	0.175**	0.210**	0.181	0.064	0.057	0.289***	0.284***	0.174***	0.153**
(s.e.)	(0.070)	(0.079)	(0.064)	(0.070)	(0.098)	(0.114)	(0.076)	(0.086)	(0.095)	(0.109)	(0.064)	(0.072)
<i>Controlled for</i>												
Operator size		-0.039		-0.043		-0.110		-0.029		-0.027		-0.061
Size proxy		-0.002**		-0.002**		0.000		-0.002		-0.001		-0.001
Condition proxy		0.007***		0.007***		0.006**		0.000		0.002		0.005***
City district		-0.004		-0.002		-0.003		-0.004		0.000		-0.001
Don't know		(omitted)		-0.792***		-0.239**		-0.174		(omitted)		0.398***
Municipality FE												
Year FE	X	X	X	X	X	X	X	X	X	X	X	X
Constant	4.030	3.617	4.115	3.639	3.338	2.992	3.953	4.094	3.254	3.146	4.127	3.847
Adj. R ²	0.019	0.024	0.017	0.028	0.037	0.039	0.008	0.009	0.021	0.022	0.010	0.017
No. obs.	8428	7996	8622	8182	8349	7931	8560	8126	7496	7125	8734	8286

*** significant at 1 percent; ** significant at 5 percent; * significant at 10 percent

Note: Each column represents the coefficient estimates from an OLS regression with clustered standard errors. The condition proxy reflects the age of the respondent. The variables marked with ^a have not been grouped, i.e. they are the same as the single variable regressions in Table (x)a in Appendix.

Table 6b - F-tests of regression coefficients from the Stockholms stad analysis for grouped variables, p values

	Overall assessment	Activities	Food	Influence	Staff
Municipality vs Private for-profit	0.020	0.000	0.062	0.00	0.028
Private non-profit vs for-profit	0.573	0.660	0.689	0.586	0.263
Municipality vs Private non-profit	0.245	0.084	0.396	0.028	0.414

Table 7 - Changes over time, Stockholm dataset for grouped variables

		mean 2010	mean 2012	diff 2012/2010
Satisfaction with nursing home	Private equity	3.921	4.182	0.261***
	Municipality	3.919	4.195	0.276***
	Private non-profit	4.233	4.240	0.007
	Private for-profit	4.162	4.337	0.175***
Overall assessment	Private equity	4.021	4.238	0.217***
	Municipality	4.032	4.259	0.227***
	Private non-profit	4.291	4.304	0.013
	Private for-profit	4.217	4.393	0.175***
Staff	Private equity	4.065	4.168	0.104**
	Municipality	4.084	4.165	0.081**
	Private non-profit	4.253	4.237	-0.0157
	Private for-profit	4.293	4.325	0.032
Activities	Private equity	3.157	3.569	0.413***
	Municipality	2.913	3.345	0.432***
	Private non-profit	3.520	3.543	0.022
	Private for-profit	3.425	3.662	0.237***
Food	Private equity	3.867	4.034	0.167***
	Municipality	3.759	3.916	0.157***
	Private non-profit	4.052	3.874	-0.178***
	Private for-profit	3.950	4.093	0.143***
Influence	Private equity	3.118	3.343	0.225***
	Municipality	3.041	3.297	0.257***
	Private non-profit	3.532	3.380	-0.152**
	Private for-profit	3.456	3.598	0.142**

Table 8a - Regression results from Äldreguiden 2012 data with PCA components

	Risk assessment		Influence and participation		Cooking and hygiene facilities		Staff	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Municipality coeff	-0.225**	-0.234**	-0.101	-0.111	-0.081	-0.078	0.159	0.157
(s.e.)	(0.112)	(0.112)	(0.107)	(0.107)	(0.100)	(0.100)	(0.104)	(0.104)
Non-profit coeff	0.236	-0.036	-0.177	0.054	-0.637***	-0.398	0.563**	0.406
(s.e.)	(0.180)	(0.213)	(0.212)	(0.271)	(0.202)	(0.295)	(0.283)	(0.284)
For-profit coeff	0.254*	0.092	0.189	0.299*	-0.375**	-0.238	0.128	0.038
(s.e.)	(0.152)	(0.164)	(0.167)	(0.161)	(0.148)	(0.152)	(0.163)	(0.207)
<i>Controlled for</i>								
Operator size		-0.337*		0.309		0.302		-0.199
Size proxy		-0.004***		-0.003**		0.002**		-0.001
Condition proxy								
City district								
Municipality FE	X	X	X	X	X	X	X	X
Year FE								
Constant	0.168	0.672	0.078	-0.111	0.104	-0.293	-0.153	0.102
Adj. R ²	0.245	0.249	0.191	0.193	0.221	0.223	0.138	0.138
No. obs.	1715	1715	1715	1715	1715	1715	1715	1715

*** significant at 1 percent; ** significant at 5 percent; * significant at 10 percent

Note: Each column represents the coefficient estimates from an OLS regression with robust standard errors.

Table 8b - F-tests of regression coefficients from the Äldreguiden 2012 analysis for PCA components, p values

	Risk assessment	Influence and participation	Cooking and hygiene facilities	Staff
Municipality vs Private for-profit	0.040	0.006	0.267	0.541
Private non-profit vs for-profit	0.517	0.348	0.535	0.197
Municipality vs Private non-profit	0.341	0.537	0.269	0.344

Table 9 - Correlation NCI and 2012 The National User Survey - Äldreguiden

	Part. in care plan	Part. in activity	Part. in physical exercise	Prev. of falling plan	Prev. of pressure ulcers plan	Prev. of malnutriti on plan	Cooking facilities	Hygiene facilities	Adequately trained staff	Staff turnover
NCI	-0.024	0.024	-0.033	0.032	0.023	0.022	0.022	0.001	0.109	0.050
Satisfaction with the nursing home*	0.005	0.004	0.003	0.105	-0.031	-0.044	-0.094	0.060	0.022	-0.239

*Variable from The 2012 National User Survey

Note: Part. = Participation, Prev. = Prevention.

Table 10 - NCI and 2012 The National User Survey vs Äldreguiden

	NCI		Satisfaction with the nursing home*	
	(1)	(2)	(3)	(4)
Participation in care plan (s.e.)	1.195 (4.388)	1.398 (4.477)	0.013 (0.144)	-0.016 (0.138)
Participation in activity (s.e.)	0.198 (4.958)	0.006 (5.011)	-0.090 (0.151)	-0.070 (0.153)
Participation in physical exercise (s.e.)	-2.850 (3.033)	-2.419 (3.135)	0.166* (0.095)	0.150 (0.097)
Prevention of falling plan (s.e.)	-0.292 (4.181)	-0.239 (4.170)	0.299*** (0.109)	0.281** (0.109)
Prevention of pressure ulcers plan (s.e.)	1.671 (6.695)	1.957 (6.662)	-0.061 (0.154)	-0.044 (0.154)
Prevention of malnutrition plan (s.e.)	2.174 (6.944)	2.506 (6.700)	-0.205 (0.130)	-0.193 (0.130)
Cooking facilities (s.e.)	-0.395 (2.961)	-0.277 (2.987)	-0.112 (0.071)	-0.111 (0.071)
Hygiene facilities (s.e.)	0.777 (4.382)	0.584 (4.300)	0.221 (0.196)	0.225 (0.195)
Adequately trained staff (s.e.)	1.899 (8.490)	2.140 (7.867)	-0.095 (0.233)	0.045 (0.215)
Staff turnover (s.e.)	2.957 (18.052)	-1.033 (17.785)	-0.709*** (0.218)	-0.754*** (0.214)
<i>Controlled for</i>				
Operator size		-6.941		-0.786***
Municipality		0.424		0.031
Non-profit		2.898		-
For-profit		-2.734		0.085
Municipality FE	X	X	X	X
Year FE				
Constant	63.269	69.103	4.044	4.682
Adj. R ²	-0.004	-0.015	0.113	0.133
No. obs.	151	151	215	215

*** significant at 1 percent; ** significant at 5 percent; * significant at 10 percent.

*Variable from the 2012 National User Survey

NCI - National Customer Index.

Note: Each column represents the coefficient estimates from an OLS regression with robust standard errors.

Table 11 - KPI averages pre and post buyout

KPI	Revenue growth				EBIT margin			
	Pre-buyout	Post-buyout	Diff	Diff vs PE	Pre-buyout	Post-buyout	Diff	Diff vs PE
Private equity owned chains	21,17%	15,48%	-5,69%	-	2,12%	6,34%	4,22%	-
Static peer	18,23%	29,75%	11,52%	17,21%	7,73%	1,63%	-6,10%	-10,32%
Dynamic peer	20,44%	29,75%	9,31%	15,01%	3,52%	1,63%	-1,89%	-6,11%

KPI	Revenue per employee				Personnel cost per employee				Personnel cost/Revenue			
	Pre-buyout	Post-buyout	Diff	Diff vs PE	Pre-buyout	Post-buyout	Diff	Diff vs PE	Pre-buyout	Post-buyout	Diff	Diff vs PE
Private equity owned chains	386 324	480 316	93 992	-	316 559	363 297	46 738	-	82,01%	75,84%	-6,17%	-
Static peer	513 271	504 552	- 8 719	- 102 711	361 805	375 282	13 477	- 33 261	72,97%	75,54%	2,57%	8,74%
Dynamic peer	418 061	504 552	86 492	- 7 501	327 871	375 282	47 411	673	79,75%	75,54%	-4,21%	1,96%

Note: The pre-buyout metrics are based on two-year arithmetic means whereas the post-buyout metrics are based on seven-year arithmetic means for the private equity owned chains, the static and the dynamic peer group. The static peer group consists of Förenade Care, A&O and KOSMO. KOSMO's fiscal year ends 04/30, i.e. 2011 reflects KOSMO 's report from 2012/04/30. Carema's 2010 (t=6) figures represent 2010/05/01 - 2011/04/30 whereas the 2011 (t=7) figures represents 2011/05/01 - 2011/12/31. The dynamic peer group consists of the companies in the static peer group together with the private equity owned chains for the years prior to the buyout. The metrics are calculated as: Revenue growth=(Revenue_t/Revenue_{t-1})-1, EBIT margin=Earnings before interest and tax_t/Revenue_t, Revenue per employee=Revenue_t/Number of employees_t, Personnel cost per employee= Personnel costs_t/Number of employees_t, Personnel cost/Revenue=Personnel costs_t/Revenue_t.

Table 12 - Private equity owned chains relative static and dynamic peer groups (averages)

	Revenue growth	EBIT margin	Revenue per employee	Personnel cost per employee	Personnel cost/Revenue
PE vs Static	-17,21%	10,32%	102 711	33 261	-8,74%
PE vs Dynamic	-15,01%	6,11%	7 501	- 673	-1,96%

Note: The metrics are defined as the difference between the two-year arithmetic mean pre-buyout and the seven-year arithmetic mean post-buyout for the private equity owned chains minus the difference for the static and the dynamic peer group respectively for the same period. The static peer group consists of Förenade Care, A&O and KOSMO. KOSMO's fiscal year ends 04/30, i.e. 2011 reflects KOSMO 's report from 2012/04/30. Carema's 2010 (t=6) figures represent 2010/05/01 - 2011/04/30 whereas the 2011 (t=7) figures represents 2011/05/01 - 2011/12/31. The dynamic peer group consists of the companies in the static peer group together with the private equity owned chains for the years prior to the buyout. The metrics are calculated as: Revenue growth=(Revenue_t/Revenue_{t-1})-1, EBIT margin=Earnings before interest and tax_t/Revenue_t, Revenue per employee=Revenue_t/Number of employees_t, Personnel cost per employee= Personnel costs_t/Number of employees_t, Personnel cost/Revenue=Personnel costs_t/Revenue_t.

Table 13a - Equity overview Aleris (tSEK)*

	Aleris Holding AB	Aleris AB	Aleris omsorg AB
Average dividend	-	-	- 7 143
Average group contribution	102 766	- 27 778	- 28 241
Average year change in equity**	10%	-6%	5%

*Data for 2005-2009

**2005 excluded as an outlier

Table 13b – Equity overview Attendo (tSEK)*

	Attendo AB**	Attendo Intressenter AB***	Attendo Group AB	Attendo Holding AB	Attendo Sverige AB/Attendo Care AB
Average dividend	-	-	- 780	- 14 349	-
Average group contribution	- 68 601	310 213	177 272	- 24 138	- 309 500
Average year change in equity****	5%	6%	6%	0%	340%

*Data for 2005-2011

**Data only available for 2007-2011

***Data only available for 2006-2011

****Outliers in 2005 excluded

Table 13c - Equity overview Carema (tSEK)*

	Carema Holding AB/Ambea AB*	Carema vård och omsorg AB**	Carema Care AB	Carema Äldreomsorg AB
Average dividend	-	- 16 729	- 2 857	- 2 857
Average group contribution	143 800	43 437	- 67 731	298
Average year change in equity	9%	5%	2%	-1%

*Data for 2005-2011

**Data only available for 2006-2010

Table 13d – Equity overview Private for-profit (tSEK)

	A&O i Sverige	Förenade Care AB	KOSMO
Average dividend	- 1 918	-	- 333
Average group contribution	n.a	n.a	n.a
Average year change in equity	18%	18%	24%

Table 14a - Debt overview Aleris (tSEK)

	Aleris Holding AB*	Aleris AB	Aleris omsorg AB
Change in Equity	45%	-68%	13%
Change in Debt	56%	-48%	-28%
Change in D/E	0,15	0,45	-0,47
Average D/E	2,69	1,25	1,50
Average cash flow before financing	- 192 483	- 3 108	- 13 025
Average amortization	193 817	-	-

*Cash flow analysis only available for 2006-2009

Note: Debt/Equity=(debt+provisions+corporate tax rate*untaxed reserves)/(equity+untaxed reserves*(1-corporate tax rate)). Changes and averages over longest available investment horizon.

Table 14b - Debt overview Attendo (tSEK)

	Attendo AB	Attendo Intressenter AB*	Attendo Group AB*	Attendo Holding AB**	Attendo Sverige AB/Attendo Care AB
Change in Equity	-40%	-11%	-4%	0%	5161%
Change in Debt	96%	16%	-3%	434%	-10%
Change in D/E	7,72	6,24	-3,48	1,55	-25,17
Average D/E	7,11	34,78	8,01	0,93	7,29
Average cash flow before financing	- 15 177	- 178 583	- 71 046	32 724	291 411
Average amortization	-	86 659	165 365	-	-

*Cash flow analysis only available for 2007-2009

**Cash flow analysis only available for 2007

Note: Debt/Equity=(debt+provisions+corporate tax rate*untaxed reserves)/(equity+untaxed reserves*(1-corporate tax rate)). Changes and averages over longest available investment horizon.

Table 14c - Debt overview Carema (tSEK)

	Carema Holding AB/Ambea AB	Carema vård och omsorg AB*	Carema Care AB	Carema Äldreomsorg AB
Change in Equity	205%	-13%	15%	-10%
Change in Debt	91%	483%	118%	38%
Change in D/E	-2,92	0,89	0,74	0,61
Average D/E	6,68	0,81	1,91	1,75
Average cash flow before financing	- 726 400	- 53 833	- 54 675	38 464
Average amortization	722 480	10 900	28 699	-

*Cash flow analysis only available for 2005-2007

Note: Debt/Equity=(debt+provisions+corporate tax rate*untaxed reserves)/(equity+untaxed reserves*(1-corporate tax rate)). Changes and averages over longest available investment horizon.

Table 14d - Debt overview Private for-profit (tSEK)

	A&O i Sverige*		Förenade Care AB		KOSMO*	
	05-09	07-11	05-09	07-11	05-09	07-11
Change in Equity	6%	194%	207%	180%	127%	203%
Change in Debt	335%	271%	141%	122%	450%	548%
Change in D/E	21,59	1,02	-0,65	-0,56	7,54	4,28
Average D/E	6,63	10,75	1,55	1,21	3,96	5,43
Average cash flow before financing	n.a	n.a	- 2 304	6 740	- 2 401	2 496
Average amortization	n.a	n.a	825	1 000	-	875

*Cash flow analysis not available

**Cash flow analysis only available for 2007-2011

Note: Debt/Equity=(debt+provisions+corporate tax rate*untaxed reserves)/(equity+untaxed reserves*(1-corporate tax rate)). Changes and averages over longest available investment horizon.

11 Appendix

Table (i) – Overview of grouped quality indicators used

Dataset	Variables	Type of measurement
NCI 2011	NCI	Result
	Safety in the nursing home	Result
	Information	Result
	Attitude	Result
	Influence	Result
	Safety	Result
	Extent of assistance	Result
	Food	Result
	Cleaning, washing and showering	Result
	Care effort	Result
	Social interaction and activities	Result
	Execution of assistance	Result
	Living environment	Result
The 2012 National user survey	Housing environment	Result
	Food	Result
	Staff	Result
	Influence	Result
	Extent of assistance	Result
	Offended by staff	Result
	Safety	Result
	Confidence in staff	Result
	Activities	Result
	Loneliness	Result
	Care efforts	Result
	Overall assessment	Result
Stockholms stad	Staff	Result
	Activities	Result
	Food	Result
	Influence	Result
	Overall assessment	Result
Äldreguiden	Participation and influence	Process
	Risk assessment	Process
	Cooking and Hygiene facilities	Structure
	Staff	Structure

Table (ii) - Descriptive statistics - NCI 2011

		Private Equity	Municipality	Private non-profit	Private for-profit
NCI	Mean	67.634	68.041	71.000	69.667
	Min	52.000	41.000	66.000	46.000
	Max	82.000	91.000	79.000	89.000
	Std.	7.644	9.143	5.568	9.820
	Obs.	41	121	5	21
Safety in the nursing home	Mean	79.463	79.860	79.800	80.238
	Min	61.000	49.000	75.000	61.000
	Max	94.000	96.000	84.000	96.000
	Std.	7.477	8.643	3.701	8.233
	Obs.	41	121	5	21
Information	Mean	56.854	56.190	57.600	57.048
	Min	34.000	26.000	46.000	37.000
	Max	78.000	82.000	66.000	72.000
	Std.	9.974	11.441	8.620	9.901
	Obs.	41	121	5	21
Attitude	Mean	75.293	74.223	77.200	76.857
	Min	62.000	48.000	66.000	59.000
	Max	89.000	91.000	88.000	91.000
	Std.	7.243	8.377	8.468	7.914
	Obs.	41	121	5	21
Influence	Mean	61.341	60.421	60.000	63.571
	Min	38.000	36.000	50.000	34.000
	Max	80.000	88.000	71.000	81.000
	Std.	9.997	11.929	8.396	11.259
	Obs.	41	121	5	21
Safety	Mean	74.976	73.876	74.000	75.048
	Min	57.000	49.000	69.000	50.000
	Max	85.000	92.000	83.000	92.000
	Std.	6.506	8.802	5.385	9.217
	Obs.	41	121	5	21
Extent of assistance	Mean	72.634	72.364	73.400	75.333
	Min	52.000	47.000	60.000	43.000
	Max	87.000	93.000	85.000	91.000
	Std.	8.021	9.026	9.864	10.234
	Obs.	41	121	5	21
Food	Mean	60.561	59.992	65.200	62.095
	Min	43.000	31.000	61.000	38.000
	Max	82.000	91.000	70.000	81.000
	Std.	9.620	11.820	4.550	10.728
	Obs.	41	121	5	21
Cleaning, washing and showering	Mean	71.439	72.620	73.800	73.619
	Min	50.000	47.000	69.000	47.000
	Max	85.000	91.000	81.000	89.000
	Std.	7.981	8.896	6.140	9.222
	Obs.	41	121	5	21
Care effort	Mean	81.805	81.893	80.400	83.524
	Min	68.000	60.000	73.000	67.000
	Max	92.000	95.000	85.000	98.000
	Std.	6.009	7.190	4.669	7.659
	Obs.	41	121	5	21
Social interaction and activities	Mean	56.805	55.843	59.400	57.667
	Min	39.000	27.000	44.000	28.000
	Max	77.000	84.000	70.000	78.000
	Std.	8.818	11.207	10.090	12.179
	Obs.	41	121	5	21
Execution of assistance	Mean	72.049	71.686	74.400	73.524
	Min	56.000	48.000	71.000	45.000
	Max	86.000	94.000	83.000	88.000
	Std.	7.246	8.965	4.879	9.158
	Obs.	41	121	5	21
Living environment	Mean	77.488	78.058	78.800	77.524
	Min	61.000	50.000	74.000	60.000
	Max	90.000	94.000	84.000	95.000
	Std.	7.376	8.183	3.701	9.003
	Obs.	41	121	5	21

Table (iii) - Descriptive statistics - the 2012 National User Survey

		Private Equity	Municipality	Private non-profit	Private for-profit
Satisfaction with room/apartment (scale 1-3)	Mean	2.764	2.815	-	2.845
	Min	2.500	2.417	-	2.658
	Max	3.018	3.237	-	3.077
	Std.	0.132	0.145	-	0.122
	Obs.	33	313	-	15
Satisfaction common areas (scale 1-3)	Mean	2.548	2.590	-	2.534
	Min	2.092	1.584	-	2.351
	Max	2.928	3.000	-	2.752
	Std.	0.218	0.235	-	0.114
	Obs.	33	313	-	15
Satisfaction outdoors facilities (scale 1-3)	Mean	2.643	2.630	-	2.546
	Min	1.908	1.166	-	1.880
	Max	3.000	3.000	-	3.003
	Std.	0.253	0.299	-	0.338
	Obs.	33	313	-	15
Food (scale 1-5)	Mean	3.890	3.913	-	3.987
	Min	3.375	2.704	-	3.500
	Max	4.534	4.700	-	4.530
	Std.	0.341	0.313	-	0.281
	Obs.	33	313	-	15
Pleasant Meals (scale 1-5)	Mean	3.684	3.749	-	3.733
	Min	3.093	2.667	-	3.211
	Max	4.445	4.571	-	4.032
	Std.	0.319	0.335	-	0.216
	Obs.	33	313	-	15
Staff has enough time (scale 1-5)	Mean	3.737	3.805	-	3.856
	Min	3.200	2.889	-	3.454
	Max	4.457	4.600	-	4.141
	Std.	0.312	0.334	-	0.239
	Obs.	33	313	-	15
Info regarding temporary changes (scale 1-5)	Mean	3.097	3.153	-	3.155
	Min	2.053	1.556	-	1.916
	Max	3.718	4.666	-	4.076
	Std.	0.425	0.529	-	0.620
	Obs.	33	313	-	15
Influence time of assistance (scale 1-5)	Mean	3.415	3.412	-	3.556
	Min	2.632	1.911	-	2.945
	Max	4.000	4.758	-	4.186
	Std.	0.367	0.456	-	0.356
	Obs.	33	313	-	15
Assistance with teeth brushing (scale 1-3)	Mean	2.316	2.390	-	2.448
	Min	1.747	1.333	-	2.000
	Max	2.832	3.000	-	2.833
	Std.	0.286	0.295	-	0.232
	Obs.	33	313	-	15
Assistance with foot care (scale 1-3)	Mean	2.731	2.703	-	2.760
	Min	2.357	1.918	-	2.333
	Max	3.000	3.003	-	3.000
	Std.	0.161	0.231	-	0.176
	Obs.	33	313	-	15
Assistance with going to the bathroom (scale 1-3)	Mean	2.614	2.629	-	2.676
	Min	2.167	1.750	-	2.337
	Max	3.000	3.000	-	3.000
	Std.	0.201	0.227	-	0.201
	Obs.	33	313	-	15
Gymnastics and training scale 1-3)	Mean	1.915	1.863	-	2.007
	Min	1.400	1.000	-	1.667
	Max	2.403	3.000	-	2.336
	Std.	0.277	0.362	-	0.201
	Obs.	33	313	-	15
Attitude of staff (scale 1-5)	Mean	4.469	4.514	-	4.549
	Min	3.996	3.727	-	4.273
	Max	4.727	5.000	-	4.942
	Std.	0.189	0.215	-	0.148
	Obs.	33	313	-	15

Have you ever felt offended by staff (scale 1-3)	Mean	2.717	2.753	-	2.731
	Min	2.250	2.143	-	2.503
	Max	2.906	3.000	-	2.875
	Std.	0.146	0.174	-	0.124
	Obs.	29	292	-	14
Safety at the nursing home (scale 1-5)	Mean	4.228	4.331	-	4.380
	Min	3.686	3.504	-	4.111
	Max	4.727	4.900	-	4.676
	Std.	0.245	0.274	-	0.164
	Obs.	33	313	-	15
Confidence in staff (scale 1-4)	Mean	3.193	3.249	-	3.319
	Min	2.565	2.574	-	2.933
	Max	3.556	4.000	-	3.786
	Std.	0.202	0.251	-	0.217
	Obs.	33	313	-	15
Activities (scale 1-5)	Mean	3.704	3.587	-	3.722
	Min	3.217	2.000	-	3.252
	Max	4.222	4.571	-	4.154
	Std.	0.278	0.455	-	0.268
	Obs.	33	313	-	15
Possibility to get outdoors (scale 1-5)	Mean	3.500	3.485	-	3.655
	Min	2.545	1.714	-	2.781
	Max	4.338	4.750	-	4.504
	Std.	0.478	0.541	-	0.481
	Obs.	33	313	-	15
Loneliness (scale 1-3)	Mean	2.199	2.140	-	2.161
	Min	1.941	1.202	-	1.949
	Max	2.499	2.803	-	2.412
	Std.	0.147	0.233	-	0.128
	Obs.	29	292	-	14
Easy/difficult to see a nurse (scale 1-5)	Mean	3.931	3.987	-	4.133
	Min	3.428	2.864	-	3.700
	Max	4.381	4.750	-	4.604
	Std.	0.259	0.344	-	0.285
	Obs.	33	313	-	15
Easy/difficult to see a doctor (scale 1-5)	Mean	3.518	3.479	-	3.734
	Min	2.800	1.750	-	3.072
	Max	4.329	4.500	-	4.227
	Std.	0.344	0.426	-	0.314
	Obs.	29	292	-	14
Easy/difficult to get in contact with staff (scale 1-5)	Mean	4.237	4.244	-	4.236
	Min	3.765	3.234	-	3.733
	Max	4.714	5.000	-	4.733
	Std.	0.240	0.290	-	0.271
	Obs.	33	313	-	15
Overall assessment (scale 1-5)	Mean	4.075	4.094	-	4.199
	Min	3.173	3.080	-	3.849
	Max	4.643	4.900	-	4.526
	Std.	0.297	0.317	-	0.205
	Obs.	33	313	-	15

Note: the numbers in the table are recalculations of the fractions in the original data as shown in Method

Table (iv) - Descriptive statistics - Stockholms stad*

		Private Equity	Municipality	Private non-profit	Private for-profit
Staff treats med good	Mean	4.352	4.344	4.447	4.484
	Min	1.000	1.000	1.000	1.000
	Max	5.000	5.000	5.000	5.000
	Std.	0.763	0.756	0.724	0.729
	Obs.	2328	2817	1572	1952
Staff asks how the help should be performed	Mean	3.853	3.833	4.006	4.093
	Min	1.000	1.000	1.000	1.000
	Max	5.000	5.000	5.000	5.000
	Std.	1.036	1.043	0.983	0.956
	Obs.	2135	2562	1478	1798
Getting out in the fresh air	Mean	3.077	2.826	3.302	3.321
	Min	1.000	1.000	1.000	1.000
	Max	5.000	5.000	5.000	5.000
	Std.	1.383	1.391	1.364	1.380
	Obs.	2117	2538	1444	1794
Satisfied with the offered activities	Mean	3.626	3.388	3.743	3.837
	Min	1.000	1.000	1.000	1.000
	Max	5.000	5.000	5.000	5.000
	Std.	1.141	1.212	1.168	1.120
	Obs.	2046	2403	1420	1770
The food is tasty	Mean	3.254	3.147	3.488	3.551
	Min	1.000	1.000	1.000	1.000
	Max	5.000	5.000	5.000	5.000
	Std.	1.216	1.223	1.166	1.201
	Obs.	2001	2401	1380	1714
Meals are a pleasant moment	Mean	3.939	3.809	4.024	3.995
	Min	1.000	1.000	1.000	1.000
	Max	5.000	5.000	5.000	5.000
	Std.	1.042	1.108	1.042	1.056
	Obs.	2256	2706	1533	1881
I can influence my everyday life	Mean	3.962	3.843	3.960	4.062
	Min	1.000	1.000	1.000	1.000
	Max	5.000	5.000	5.000	5.000
	Std.	1.016	1.060	1.045	1.030
	Obs.	2207	2618	1494	1852
Feeling safe at nursing home	Mean	4.214	4.220	4.353	4.383
	Min	1.000	1.000	1.000	1.000
	Max	5.000	5.000	5.000	5.000
	Std.	0.920	0.933	0.928	0.890
	Obs.	2263	2714	1539	1913
Satisfaction with the nursing home	Mean	4.030	4.019	4.215	4.252
	Min	1.000	1.000	1.000	1.000
	Max	5.000	5.000	5.000	5.000
	Std.	0.985	1.011	0.953	0.945
	Obs.	2252	2723	1542	1911

* The questions are measured on a scale from 1-5, where 1=disagree and 5=agree completely

Note: the number of observations in this sample represents the individual respondents and not the number of nursing homes

Table (v) - Descriptive statistics - Äldreguiden 2012

		Private Equity	Municipality	Private non-profit	Private for-profit
Participation in care plan	Mean	0.946	0.910	0.982	0.939
	Min	0.125	0.000	0.765	0.143
	Max	1.000	1.000	1.000	1.000
	Std.	0.162	0.219	0.053	0.178
	Obs.	197	2071	52	130
Participation in activity	Mean	0.888	0.822	0.872	0.894
	Min	0.377	0.000	0.364	0.250
	Max	1.000	1.000	1.000	1.000
	Std.	0.137	0.208	0.153	0.164
	Obs.	190	2039	50	117
Participation in physical exercise	Mean	0.670	0.598	0.630	0.726
	Min	0.000	0.000	0.000	0.000
	Max	1.000	1.000	1.000	1.000
	Std.	0.262	0.314	0.299	0.276
	Obs.	195	2075	52	123
Prevention of falling plan	Mean	0.913	0.853	0.924	0.966
	Min	0.000	0.000	0.000	0.271
	Max	1.000	1.000	1.000	1.000
	Std.	0.227	0.277	0.216	0.119
	Obs.	194	1874	51	125
Prevention of pressure ulcers plan	Mean	0.945	0.916	0.956	0.962
	Min	0.000	0.000	0.500	0.000
	Max	1.000	1.000	1.000	1.000
	Std.	0.183	0.219	0.121	0.143
	Obs.	179	1693	44	114
Prevention of malnutrition plan	Mean	0.949	0.919	0.945	0.968
	Min	0.000	0.000	0.286	0.000
	Max	1.000	1.000	1.000	1.000
	Std.	0.161	0.205	0.148	0.140
	Obs.	183	1821	48	117
Cooking facilities	Mean	0.715	0.716	0.599	0.611
	Min	0.000	0.000	0.000	0.000
	Max	1.000	1.000	1.000	1.000
	Std.	0.424	0.428	0.467	0.453
	Obs.	198	2111	52	127
Hygiene facilities	Mean	0.980	0.954	0.918	0.966
	Min	0.000	0.000	0.000	0.000
	Max	1.000	1.000	1.000	1.000
	Std.	0.124	0.190	0.248	0.153
	Obs.	198	2111	52	127
Adequately trained staff	Mean	0.805	0.837	0.845	0.846
	Min	0.354	0.031	0.035	0.448
	Max	1.000	1.000	1.000	1.000
	Std.	0.148	0.151	0.169	0.151
	Obs.	198	2130	52	130
Staff turnover	Mean	0.074	0.072	0.118	0.092
	Min	0.000	0.000	0.000	0.000
	Max	1.000	1.000	1.000	1.000
	Std.	0.148	0.138	0.208	0.181
	Obs.	183	2114	52	126

Table (vi) - Interview guide (PE)

Value creation and financial performance

- Please describe the main attractive features of the elderly care industry and of your particular portfolio investment
- What specific actions have you used in order to create financial value in the investment?
- How do you work with follow-ups on financial performance? (How do you measure it? How often? How do you incorporate the results into your organization?)
- What is your main growth strategy?

Profits and reinvestment

- How do you distribute profits in the organization? Dividends, reinvestments, other? What is the logic behind your policy?
- Does your policy change over the investment horizon?
- How do you think that this differs from industry peers in elderly care (organizations governed by: government, private for-profit or non-profit)?

Quality

- Please describe what quality in elderly care is for you?
- What specific actions have you used in order to create qualitative value in the organization? For example: educate staff, more activities for the elderly, increased safety.
- Do you have any follow-up processes regarding quality?
- What do the processes look like and how do you work with them?

Corporate governance

- Please explain your corporate governance model
- Is it a dynamic model that is updated on a regular basis or is it more static? Does it differ from your other investments?
- What are the main advantages of this model and how does it differ from industry peers?
- How have you been working with improving the corporate governance model for the organization since you took over? (For example: change board composition, CEO and management, compensation schemes, reporting or other incentivizing or monitoring actions)

How has privatization in elderly care changed the industry? And in particular, how has the introduction of private equity affected the industry?

What is your view on the criticism against profits in the elderly care sector? Is it possible to combine for-profit interests with the elderly getting the best possible care? If yes, how?

Table (vii) - Principal components/correlation

Component	Eigenvalue	Difference	Proportion	Cumulative
Comp1	2.183	0.621	0.218	0.218
Comp2	1.562	0.222	0.156	0.375
Comp3	1.340	0.292	0.134	0.509
Comp4	1.048	0.099	0.105	0.613
Comp5	0.948	0.062	0.095	0.708
Comp6	0.886	0.236	0.089	0.797
Comp7	0.650	0.117	0.065	0.862
Comp8	0.532	0.057	0.053	0.915
Comp9	0.476	0.101	0.048	0.963
Comp10	0.375	.	0.038	1.000

* Eigenvalue>1.000 has been chosen as a threshold when choosing how many components to use

Table (viii) - Principal components (eigenvectors)

Variable	Comp1	Comp2	Comp3	Comp4	Comp5	Comp6	Comp7	Comp8	Comp9	Comp10
Participation in care plan	0.057	0.395	0.019	0.033	-0.284	0.869	0.010	-0.029	0.006	-0.041
Participation in activity	0.202	0.543	-0.311	-0.088	0.132	-0.182	-0.076	0.648	-0.290	0.010
Participation in physical exercise	0.155	0.582	-0.215	-0.037	0.269	-0.205	0.023	-0.630	0.277	-0.018
Prevention of falling plan	0.540	-0.127	0.032	-0.033	-0.073	0.006	0.013	0.310	0.767	0.015
Prevention of pressure ulcers plan	0.563	-0.140	0.067	0.015	0.060	0.074	-0.044	-0.190	-0.353	0.698
Prevention of malnutrition plan	0.561	-0.156	0.082	0.060	0.063	0.014	0.023	-0.145	-0.343	-0.712
Cooking facilities	0.012	0.268	0.639	-0.014	0.036	-0.127	0.699	0.097	-0.038	0.045
Hygiene facilities	-0.007	0.246	0.644	0.113	-0.021	-0.129	-0.703	0.019	0.027	-0.020
Adequately trained staff	0.070	0.123	-0.145	0.624	-0.681	-0.304	0.082	-0.062	-0.035	0.030
Staff turnover	-0.059	-0.048	-0.019	0.763	0.593	0.195	0.042	0.123	0.071	0.025

* Eigenvector>0.350 has been chosen as a threshold when interpreting the economic intuition behind the components

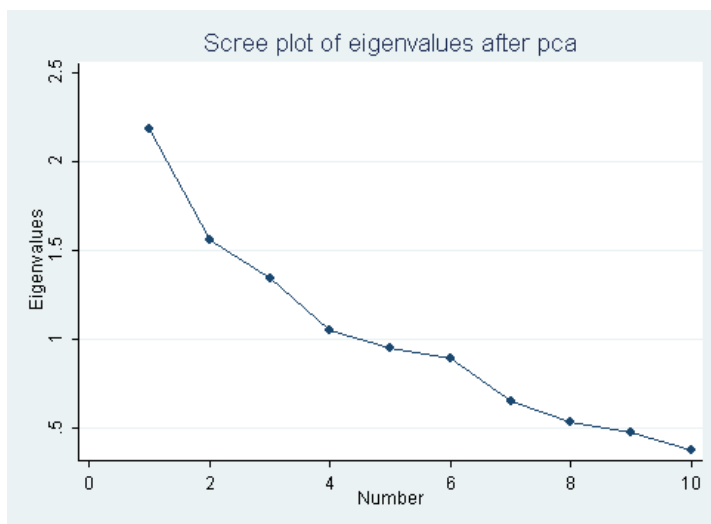
Figure (i) – Scree plot of eigenvalues for Äldreguiden

Table (viii)a - Regression results from the 2012 National User Survey

	Satisfaction with room/apartment		Satisfaction common areas		Satisfaction outdoors facilities		Food		Pleasant meals		Staff has enough time		Info regarding temporary changes		Influence time of assistance		Assistance with teeth brushing	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
Municipality coeff (s.e.)	0.060** (0.026)	0.052** (0.026)	0.027 (0.041)	0.045 (0.045)	0.013 (0.050)	0.043 (0.056)	0.060 (0.058)	0.025 (0.062)	0.081 (0.052)	0.057 (0.054)	0.083 (0.062)	0.051 (0.065)	0.116 (0.085)	0.087 (0.091)	0.073 (0.075)	0.064 (0.081)	0.082 (0.053)	0,059 (0,055)
For-profit coeff (s.e.)	0.088** (0.040)	0.122** (0.048)	-0.011 (0.047)	-0.037 (0.052)	-0.058 (0.093)	-0.125 (0.108)	0.146* (0.082)	0.173* (0.089)	0.093 (0.074)	0.116 (0.089)	0.105 (0.078)	0.153* (0.087)	0.050 (0.162)	0.126 (0.192)	0.159 (0.114)	0.245* (0.137)	0.142* (0.081)	0,164* (0,089)
<i>Controlled for</i>																		
Operator size		0.103*		-0.147**		-0.373***		0.078		0.198		0.269*		0.290		0.253		0.155
Size proxy		-0.001		0.000		0.004*		-0.003		0.000		-0.001		-0.005		0.000		-0.003
Condition proxy		0.015		0.077		0.034		-0.236***		0.009		0.041		0.329*		0.681***		-0.478***
City district																		
Don't know		-0.124		-0.292*		-0.606***		-0.290		-0.077		-0.202		0.349		0.339		-0.209
Municipality FE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Year FE																		
Constant	2.756	2.683	2.561	2.690	2.619	2.955	3.856	3.962	3.669	3.501	3.724	3.493	3.045	2.664	3.348	2.789	2.309	2.461
Adj. R ²	0.001	0.000	0.072	0.076	0.021	0.069	0.104	0.137	0.070	0.071	0.050	0.051	0.089	0.098	0.113	0.182	0.005	0.168
No. obs.	361	335	361	335	361	335	361	335	361	335	361	335	361	335	361	335	361	335

	Assistance with foot care		Assistance with going to the bathroom		Gymnastics and training		Attitude of staff		Have you ever felt offended by staff		Safety at the nursing home		Confidence in staff		Activities		Possibility to get outdoors		Loneliness	
	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)
Municipality coeff (s.e.)	-0.032 (0.032)	-0.060* (0.033)	0.031 (0.039)	0.022 (0.042)	-0.041 (0.054)	-0.050 (0.058)	0.050 (0.038)	0.053 (0.041)	0.028 (0.033)	0.024 (0.032)	0.124*** (0.046)	0.114** (0.049)	0.061 (0.040)	0.055 (0.036)	-0.114* (0.066)	-0.083 (0.066)	0.080 (0.092)	0.064 (0.098)	-0.054 (0.039)	-0.048 (0.040)
For-profit coeff (s.e.)	0.003 (0.051)	-0.050 (0.069)	0.057 (0.063)	0.038 (0.062)	0.055 (0.074)	0.048 (0.095)	0.108** (0.046)	0.116** (0.050)	0.027 (0.043)	0.036 (0.047)	0.161*** (0.057)	0.158** (0.072)	0.151*** (0.057)	0.189*** (0.061)	0.045 (0.093)	0.140 (0.097)	0.166 (0.131)	0.101 (0.145)	-0.035 (0.053)	-0.037 (0.056)
<i>Controlled for</i>																				
Operator size		-0.067		-0.070		0.062		-0.047		0.044		-0.009		0.110		0.442***		-0.380**		-0.036
Size proxy		-0.001		-0.001		0.004		-0.002		-0.001		0.001		-0.001		0.004*		-0.001		0.002
Condition proxy		-0.313***		-0.142*		0.170*		0.010		-0.072		0.089		0.150**		0.2451**		0.609***		0.188**
City district																				
Don't know		-0.327**		-0.156		0.181		-0.391		-0.052		-0.188		-0.090		-0.475**		-0.526		0.069
Municipality FE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Year FE																				
Constant	2.736	3.004	2.601	2.787	1.906	1.677	4.463	4.537	2.723	2.744	4.209	4.177	3.188	3.042	3.701	3.174	3.417	3.649	2.195	2.118
Adj. R ²	0.107	0.199	0.001	0.030	0.141	0.164	0.102	0.109	0.045	0.043	0.056	0.052	0.135	0.163	0.117	0.166	0.115	0.174	0.030	0.045
No. obs.	361	335	361	335	361	335	361	335	335	335	361	335	361	335	361	335	361	335	335	335

	Easy/difficult to see a nurse		Easy/difficult to see a doctor		Easy/difficult to get in contact with staff		Overall assessment	
	(39)	(40)	(41)	(42)	(43)	(44)	(45)	(46)
Municipality coeff	0.074	0.059	-0.020	-0.018	0.016	0.008	0.034	0.006
(s.e.)	(0.053)	(0.053)	(0.068)	(0.069)	(0.046)	(0.049)	(0.060)	(0.059)
For-profit coeff	0.209***	0.206**	0.196**	0.167	0.015	0.050	0.140*	0.150*
(s.e.)	(0.078)	(0.082)	(0.091)	(0.102)	(0.078)	(0.089)	(0.072)	(0.084)
<i>Controlled for</i>								
Operator size		0.127		-0.017		0.128		0.081
Size proxy		0.003		0.002		0.000		0.001
Condition proxy		-0.384***		-0.358***		-0.071		0.128
City district								
Don't know		-0.366*		-0.380**		-0.406		0.255
Municipality FE	X	X	X	X	X	X	X	X
Year FE								
Constant	3.915	3.937	3.502	3.699	4.228	4.148	4.061	3.928
Adj. R ²	0.136	0.172	0.196	0.216	0.058	0.060	0.047	0.055
No. obs.	361	335	335	335	361	335	361	335

*** significant at 1 percent; ** significant at 5 percent; * significant at 10 percent

Note: Each column represents the coefficient estimates from an OLS regression with robust standard errors. The condition proxy reflects if the respondent has answered for him/herself.

Table (viii)b - F-tests of regression coefficients from the 2012 National User Survey analysis, p values

	Satisfaction with room/apartment	Satisfaction common areas	Satisfaction outdoors facilities	Food	Pleasant Meals	Staff has enough time	Info regarding temporary changes	Influence time of assistance	Assistance with teeth brushing	Assistance with foot care	Assistance with going to the bathroom	Gymnastics and training	Attitude of staff
Municipality vs Private for-profit	0.108	0.019	0.078	0.026	0.441	0.106	0.822	0.111	0.157	0.867	0.753	0.230	0.116

	Have you ever felt offended by staff	Safety at the nursing home	Confidence in staff	Activities	Possibility to get outdoors	Loneliness	Easy/difficult to see a nurse	Easy/difficult to see a doctor	Easy/difficult to get in contact with staff	Overall assessment
Municipality vs Private for-profit	0.763	0.437	0.016	0.007	0.755	0.812	0.045	0.031	0.590	0.024

Table (x)a - Regression results from Stockholms stad data

	Staff treats me good		Staff asks how help should be performed		Getting out in the fresh air		Satisfied with the offered activities		The food is tasty		Meals are a pleasant moment		I can influence my everyday life		Feeling safe at nursing home		Satisfaction with the nursing home	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
Municipality coeff	-0.007	-0.010	-0.020	0.002	-0.245***	-0.298***	-0.233***	-0.250***	-0.128*	-0.137*	-0.117*	-0.104*	-0.105*	-0.098	-0.008	-0.022	0.008	0.022
(s.e.)	(0.044)	(0.043)	(0.059)	(0.056)	(0.088)	(0.099)	(0.069)	(0.074)	(0.070)	(0.077)	(0.058)	(0.612)	(0.060)	(0.067)	(0.053)	(0.054)	(0.046)	(0.046)
Non-profit coeff	0.097**	0.047	0.154**	0.092	0.241	0.185	0.127	0.026	0.089	0.078	0.002	-0.041	0.241***	0.218	0.194***	0.149	0.144**	0.103
(s.e.)	(0.045)	(0.070)	(0.070)	(0.117)	(0.154)	(0.264)	(0.107)	(0.161)	(0.096)	(0.163)	(0.077)	(0.137)	(0.086)	(0.142)	(0.067)	(0.114)	(0.060)	(0.087)
For-profit coeff	0.128**	0.106*	0.239***	0.208**	0.218*	0.210	0.200**	0.166*	0.050	0.056	0.094	0.072	0.289***	0.284***	0.209***	0.204**	0.159***	0.150**
(s.e.)	(0.054)	(0.061)	(0.078)	(0.089)	(0.124)	(0.144)	(0.088)	(0.100)	(0.078)	(0.088)	(0.078)	(0.090)	(0.095)	(0.109)	(0.070)	(0.079)	(0.059)	(0.065)
<i>Controlled for</i>																		
Operator size		-0.059		-0.071		-0.062		-0.115		-0.005		-0.050		-0.027		-0.039		-0.034
Size proxy		-0.001		-0.001		-0.001		0.000		-0.001		0.002		-0.001		-0.002**		-0.002**
Condition proxy		0.005***		0.005**		0.004		0.008***		-0.001		-0.002*		0.002		0.007***		0.007***
City district		-0.002		-0.001		-0.008		0.000		-0.007		-0.002		0.000		-0.004		0.000
Don't know		(omitted)		(omitted)		(omitted)		(omitted)		(omitted)		(omitted)		(omitted)		(omitted)		(omitted)
Municipality FE																		
Year FE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Constant	4.352	4.051	3.853	3.600	3.078	2.935	3.625	3.026	3.939	4.182	3.962	3.980	3.254	3.146	4.030	3.617	4.215	3.694
Adj. R ²	0.007	0.011	0.011	0.012	0.037	0.040	0.027	0.030	0.007	0.009	0.007	0.008	0.021	0.022	0.019	0.024	0.011	0.015
No. obs.	8669	8226	7973	7558	7893	7493	7639	7267	8376	7949	8171	7767	7496	7125	8428	7996	8429	8008

*** significant at 1 percent; ** significant at 5 percent; * significant at 10 percent

Note: Each column represents the coefficient estimates from an OLS regression with clustered standard errors. The condition proxy reflects the age of the respondent.

Table (x)b - F-tests of regression coefficients from the Stockholms stad analysis, p values

	Staff treats med good	Staff asks how the help should be performed	Getting out in the fresh air	Satisfied with the offered activities	The food is tasty	Meals are a pleasant moment	I can influence my everyday life	Feeling safe at nursing home	Satisfaction with the nursing home
Municipality vs Private for-profit	0.069	0.019	0.001	0.000	0.069	0.069	0.001	0.008	0.047
Private non-profit vs for-profit	0.335	0.236	0.907	0.323	0.871	0.314	0.586	0.578	0.559
Municipality vs Private non-profit	0.429	0.436	0.068	0.098	0.213	0.661	0.028	0.150	0.351

Table (xi) - Descriptive Statistics - Stockholms stad over time

		mean 2010	mean 2011	mean 2012	diff 2011/2010	diff 2012/2011	diff 2012/2010
Staff treats med good	Private equity	4.317	4.369	4.373	0.052	0.004	0.056
	Municipality	4.326	4.276	4.427	-0.050	0.151***	0.101***
	Private non-profit	4.464	4.413	4.460	-0.052	0.047	-0.005
	Private for-profit	4.481	4.454	4.507	-0.027	0.053	0.025
Staff asks how the help should be performed	Private equity	3.777	3.898	3.891	0.121**	-0.007	0.114
	Municipality	3.821	3.867	3.814	0.046	-0.053	-0.007
	Private non-profit	4.026	3.998	3.989	-0.028	-0.009	-0.037
	Private for-profit	4.099	4.101	4.082	0.002	-0.020	-0.018
Getting out in the fresh air	Private equity	2.881	2.985	3.358	0.104	0.373***	0.477***
	Municipality	2.592	2.764	3.141	0.172***	0.378***	0.550***
	Private non-profit	3.250	3.249	3.422	-0.001	0.173*	0.172**
	Private for-profit	3.152	3.263	3.484	0.111	0.221***	0.332***
Satisfied with the offered activities	Private equity	3.458	3.615	3.801	0.157**	0.186***	0.343***
	Municipality	3.220	3.404	3.560	0.183***	0.156***	0.339***
	Private non-profit	3.786	3.784	3.647	-0.002	-0.137*	-0.139*
	Private for-profit	3.714	3.895	3.884	0.181***	-0.011	0.170***
The food is tasty	Private equity	3.819	3.973	4.028	0.153***	0.055	0.209***
	Municipality	3.749	3.780	3.901	0.031	0.120**	0.152***
	Private non-profit	4.092	4.067	3.894	-0.025	-0.172**	-0.198***
	Private for-profit	3.919	3.972	4.065	0.053	0.093	0.146**
Meals are a pleasant moment	Private equity	3.903	3.934	4.044	0.031	0.110**	0.141***
	Municipality	3.770	3.814	3.950	0.044	0.136***	0.180***
	Private non-profit	4.024	3.965	3.873	-0.059	-0.092	-0.151**
	Private for-profit	3.998	4.034	4.127	0.036	0.093	0.1291**
I can influence my everyday life	Private equity	3.118	3.308	3.343	0.190***	0.035	0.225***
	Municipality	3.041	3.111	3.297	0.070	0.187***	0.257***
	Private non-profit	3.532	3.539	3.380	0.007	-0.159*	-0.152**
	Private for-profit	3.456	3.583	3.598	0.127*	0.015	0.142**
Feeling safe at nursing home	Private equity	4.138	4.186	4.315	0.047	0.129***	0.176***
	Municipality	4.159	4.153	4.347	-0.006	0.194***	0.188***
	Private non-profit	4.367	4.325	4.363	-0.042	0.038	-0.004
	Private for-profit	4.306	4.363	4.451	0.058	0.087*	0.145***
Satisfaction with the nursing home	Private equity	3.921	3.981	4.182	0.060	0.201***	0.261***
	Municipality	3.919	3.946	4.195	0.027	0.249***	0.276***
	Private non-profit	4.233	4.169	4.240	-0.064	0.072	0.007
	Private for-profit	4.162	4.223	4.337	0.061	0.114**	0.175***

Table (xii)a - Regression results from Äldreguiden data

	Participation in care plan		Participation in activity		Participation in physical exercise		Prevention of falling plan		Prevention of pressure ulcers plan	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Municipality coeff (s.e.)	-0.027* (0.015)	-0.025* (0.015)	-0.036*** (0.014)	-0.039*** (0.014)	-0.031 (0.024)	-0.034 (0.024)	-0.029 (0.019)	-0.030 (0.019)	-0.014 (0.016)	-0.016 (0.016)
Non-profit coeff (s.e.)	0.010 (0.018)	0.040 (0.025)	-0.020 (0.025)	-0.013 (0.034)	-0.064 (0.050)	-0.084 (0.058)	0.051 (0.035)	0.022 (0.045)	0.027 (0.025)	0.015 (0.029)
For-profit coeff (s.e.)	-0.018 (0.023)	0.003 (0.020)	0.018 (0.018)	0.020 (0.019)	0.062* (0.034)	0.047 (0.041)	0.052** (0.024)	0.033 (0.029)	0.009 (0.020)	0.000 (0.021)
<i>Controlled for</i>										
Operator size		0.040		0.015		-0.022		-0.037		-0.014
Size proxy		0.000***		-0.000***		-0.001***		-0.001**		-0.000**
Condition proxy										
City district										
Municipality FE	X	X	X	X	X	X	X	X	X	X
Year FE										
Constant	0.939	0.880	0.862	0.881	0.635	0.701	0.886	0.945	0.932	0.966
Adj. R ²	0.170	0.173	0.192	0.199	0.207	0.211	0.183	0.183	0.117	0.118
No. obs.	2450	2449	2396	2395	2445	2444	2244	2243	2030	2030

	Prevention of malnutrition plan		Cooking facilities		Hygiene facilities		Adequately trained staff		Staff turnover	
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
Municipality coeff (s.e.)	-0.001 (0.013)	0.000 (0.013)	0.001 (0.036)	0.000 (0.036)	-0.025** (0.012)	-0.025** (0.012)	0.016 (0.012)	0.015 (0.012)	0.008 (0.013)	0.007 (0.013)
Non-profit coeff (s.e.)	0.027 (0.024)	0.016 (0.026)	-0.124* (0.070)	-0.102 (0.089)	-0.072** (0.030)	-0.043 (0.039)	0.043 (0.027)	0.043 (0.031)	0.056* (0.032)	0.048 (0.033)
For-profit coeff (s.e.)	0.031* (0.018)	0.024 (0.020)	-0.0861 (0.053)	-0.072 (0.060)	-0.020 (0.019)	-0.001 (0.016)	0.045*** (0.018)	0.045** (0.020)	0.019 (0.022)	0.013 (0.027)
<i>Controlled for</i>										
Operator size		-0.015		0.033		0.039		0.002		-0.009
Size proxy		0.000		0.000		0.000		-0.000*		-0.000***
Condition proxy										
City district										
Municipality FE	X	X	X	X	X	X	X	X	X	X
Year FE										
Constant	0.923	0.939	0.714	0.690	0.979	0.931	0.819	0.826	0.066	0.089
Adj. R ²	0.174	0.175	0.231	0.232	0.112	0.113	0.222	0.222	0.028	0.030
No. obs.	2169	2168	2488	2487	2488	2487	2510	2509	2475	2474

*** significant at 1 percent; ** significant at 5 percent; * significant at 10 percent

Note: Each column represents the coefficient estimates from an OLS regression with robust standard errors.

Table (xii)b - F-tests of regression coefficients from the Äldreguiden analysis, p values

	Participation in care plan	Participation in activity	Participation in physical exercise	Prevention of falling plan	Prevention of pressure ulcers plan	Prevention of malnutrition plan	Cooking facilities	Hygiene facilities	Adequately trained staff	Staff turnover
Municipality vs Private for-profit	0.107	0.001	0.034	0.023	0.450	0.203	0.194	0.102	0.094	0.822
Private non-profit vs for-profit	0.141	0.271	0.013	0.764	0.608	0.719	0.717	0.241	0.939	0.328
Municipality vs Private non-profit	0.005	0.416	0.381	0.257	0.312	0.499	0.242	0.628	0.358	0.183

Table (xiii) - Time series over buyout date

Year, t	Pre-buyout		Post-buyout						
	t=-1	t=0	t=1	t=2	t=3	t=4	t=5	t=6	t=7
Revenue growth									
Private equity owned chains	39.89%	2.45%	25.15%	17.68%	11.13%	23.40%	27.66%	9.98%	-6.63%
Static peer	20.45%	16.01%	6.33%	16.51%	24.29%	7.82%	91.67%	41.85%	19.77%
Dynamic peer	30.17%	9.23%	6.33%	16.51%	24.29%	7.82%	91.67%	41.85%	19.77%
EBIT margin									
Private equity owned chains	-0.56%	4.80%	8.39%	6.98%	7.75%	3.03%	5.91%	6.13%	6.19%
Static peer	12.63%	2.83%	2.85%	1.86%	-3.57%	3.63%	1.67%	1.80%	3.21%
Dynamic peer	6.04%	3.81%	2.85%	1.86%	-3.57%	3.63%	1.67%	1.80%	3.21%
Revenue per employee									
Private equity owned chains	346 635	426 012	494 268	436 652	449 566	449 994	498 045	574 706	458 982
Static peer	481 524	545 019	480 172	494 015	477 932	480 024	491 885	544 476	563 363
Dynamic peer	414 080	485 515	480 172	494 015	477 932	480 024	491 885	544 476	563 363
Personnel cost per employee									
Private equity owned chains	288 466	344 653	370 481	326 571	335 521	356 079	378 774	431 433	344 220
Static peer	355 283	368 327	377 975	381 756	363 482	370 451	392 020	292 157	449 128
Dynamic peer	321 874	356 490	377 975	381 756	363 482	370 451	392 020	292 157	449 128
Personnel cost/Revenue									
Private equity owned chains	83.18%	80.85%	74.90%	74.98%	74.94%	79.17%	76.01%	75.31%	75.59%
Static peer	74.07%	71.87%	79.23%	77.80%	76.35%	77.58%	79.96%	58.03%	79.85%
Dynamic peer	78.62%	76.36%	79.23%	77.80%	76.35%	77.58%	79.96%	58.03%	79.85%

Note: The table displays the metrics for the private equity owned chains, the static and the dynamic peer group one year prior to the buyout, the year of the buyout and seven consecutive years after the buyout. The static peer group consists of Förenade Care, A&O and KOSMO. KOSMO's fiscal year ends 04/30. i.e. 2011 (t=7) reflects KOSMO's report from 2012/04/30. Carema's 2010 (t=6) figures represent 2010/05/01 - 2011/04/30 whereas the 2011 (t=7) figures represents 2011/05/01 - 2011/12/31. The dynamic peer group consists of the companies in the static peer group together with the private equity owned chains for the years prior to the buyout. The metrics are calculated as: Revenue growth=(Revenue_t/Revenue_{t-1})-1. EBIT margin=Earnings before interest and tax_t/Revenue_t. Revenue per employee=Revenue_t/Number of employees_t. Personnel cost per employee= Personnel costs_t/Number of employees_t. Personnel cost/Revenue=Personnel costs_t/Revenue_t.

Table (xiv) - Pre- and Post-buyout operating performance - two vs seven year arithmetic means

	Revenue growth			EBIT margin		
	Pre-buyout	Post-buyout	Diff	Pre-buyout	Post-buyout	Diff
<i>Aleris</i>	-10.39%	4.93%	15.32%	3.87%	4.88%	1.01%
Static peer	18.23%	29.75%	11.52%	7.73%	1.63%	-6.10%
Dynamic peer	20.44%	29.75%	9.31%	3.52%	1.63%	-1.89%
<i>Attendo</i>	12.62%	19.77%	7.15%	8.61%	8.73%	0.12%
Static peer	18.23%	29.75%	11.52%	7.73%	1.63%	-6.10%
Dynamic peer	20.44%	29.75%	9.31%	3.52%	1.63%	-1.89%
<i>Carema</i>	61.28%	21.73%	-39.55%	-6.14%	5.41%	11.54%
Static peer	18.23%	29.75%	11.52%	7.73%	1.63%	-6.10%
Dynamic peer	20.44%	29.75%	9.31%	3.52%	1.63%	-1.89%

	Revenue per employee			Personnel cost per employee			Personnel cost/Revenue		
	Pre-buyout	Post-buyout	Diff	Pre-buyout	Post-buyout	Diff	Pre-buyout	Post-buyout	Diff
<i>Aleris</i>	339 821	516 586	176 765	275 503	399 392	123 889	81.46%	77.98%	-3.48%
Static peer	513 271	504 552	- 8 719	361 805	375 282	13 477	72.97%	75.54%	2.57%
Dynamic peer	418 061	504 552	86 492	327 871	375 282	47 411	79.75%	75.54%	-4.21%
<i>Attendo</i>	405 695	442 431	36 736	313 572	329 941	16 368	77.37%	74.55%	-2.82%
Static peer	513 271	504 552	- 8 719	361 805	375 282	13 477	72.97%	75.54%	2.57%
Dynamic peer	418 061	504 552	86 492	327 871	375 282	47 411	79.75%	75.54%	-4.21%
<i>Carema</i>	413 456	481 932	68 476	360 602	360 558	- 44	87.21%	75.01%	-12.20%
Static peer	513 271	504 552	- 8 719	361 805	375 282	13 477	72.97%	75.54%	2.57%
Dynamic peer	418 061	504 552	86 492	327 871	375 282	47 411	79.75%	75.54%	-4.21%

Note: The pre-buyout metrics are based on two-year arithmetic means whereas the post-buyout metrics are based on seven-year arithmetic means for the private equity owned chains, the static and the dynamic peer group. The static peer group consists of Förenade Care, A&O and KOSMO. KOSMO's fiscal year ends 04/30. i.e. 2011 reflects KOSMO's report from 2012/04/30. Carema's 2010 (t=6) figures represent 2010/05/01 - 2011/04/30 whereas the 2011 (t=7) figures represents 2011/05/01 - 2011/12/31. The dynamic peer group consists of the companies in the static peer group together with the private equity owned chains for the years prior to the buyout. The metrics are calculated as: Revenue growth=(Revenue_t/Revenue_{t-1})-1. EBIT margin=Earnings before interest and tax_t/Revenue, Revenue per employee=Revenue_t/Number of employees_t. Personnel cost per employee= Personnel costs_t/Number of employees_t. Personnel cost/Revenue=Personnel costs_t/Revenue_t.

Table (xv) - Average operating performance relative static peer group

	Revenue growth	EBIT margin	Revenue per employee	Personnel cost per employee	Personnel cost/Revenue
Aleris	3.81%	7.11%	185 484	110 412	-6.05%
Attendo	-4.37%	6.22%	45 455	2 892	-5.39%
Carema	-51.07%	17.64%	77 195	- 13 520	-14.78%
<i>Mean</i>	<i>-17.21%</i>	<i>10.32%</i>	<i>102 711</i>	<i>33 261</i>	<i>-8.74%</i>
<i>Median</i>	<i>-4.37%</i>	<i>7.11%</i>	<i>77 195</i>	<i>2 892</i>	<i>-6.05%</i>

Table (xvi) - Average operating performance relative dynamic peer group

	Revenue growth	EBIT margin	Revenue per employee	Personnel cost per employee	Personnel cost/Revenue
Aleris	6.01%	2.89%	90 274	76 478	0.73%
Attendo	-2.17%	2.01%	- 49 756	- 31 043	1.39%
Carema	-48.86%	13.43%	- 18 016	- 47 455	-8.00%
<i>Mean</i>	<i>-15.01%</i>	<i>6.11%</i>	<i>7 501</i>	<i>- 673</i>	<i>-1.96%</i>
<i>Median</i>	<i>-2.17%</i>	<i>2.89%</i>	<i>- 18 016</i>	<i>- 31 043</i>	<i>0.73%</i>

Note: The metrics are defined as the difference between the two-year arithmetic mean pre buyout and the seven-year arithmetic mean post buyout for the private equity owned chains minus the difference for the static and the dynamic peer group respectively for the same period. The static peer group consists of Förenade Care, A&O and KOSMO. KOSMO's fiscal year ends 04/30. i.e. 2011 reflects KOSMO's report from 2012/04/30. Carema's 2010 (t=6) figures represent 2010/05/01 - 2011/04/30 whereas the 2011 (t=7) figures represents 2011/05/01 - 2011/12/31. The dynamic peer group consists of the companies in the static peer group together with the private equity owned chains for the years prior to the buyout. The metrics are calculated as: Revenue growth=(Revenue_t/Revenue_{t-1})-1. EBIT margin=Earnings before interest and tax_t/Revenue_t. Revenue per employee=Revenue_t/Number of employees_t. Personnel cost per employee= Personnel costs_t/Number of employees_t. Personnel cost/Revenue=Personnel costs_t/Revenue_t.

Table (xvii)a - Change in equity for Aleris (tSEK)

	2005	2006	2007	2008	2009	2010	2011
Aleris Holding AB							
Equity OB	100	509 879	607 229	606 510	696 807	740 433	1 657 754
+Profit	- 47 723	- 53 060	- 64 003	- 84 923	- 133 378	803 337	17 768
-Dividend	-	-	-	-	-	-	-
+Equity issue	557 502	49 811	-	44 356	100 017	-	-
+Shareholder contributions	-	-	-	-	-	-	1 019 000
Other	-	-	-	-	-	-	-
Tax effect on group contributions	-	- 39 122	- 24 611	- 50 892	- 27 473	- 40 675	6 896
Group contributions	-	139 721	87 895	181 756	104 460	154 659	- 26 219
Equity CB	509 879	607 229	606 510	696 807	740 433	1 657 754	2 675 199
Aleris AB							
Equity OB	54 238	345 182	464 974	448 669	114 475	111 183	78 568
+Profit	4 604	38 933	- 2 634	- 299 851	- 2 912	- 33 692	14 823
-Dividend	-	-	-	-	-	-	-
+Equity issue	-	-	-	-	-	-	-
+Shareholder contributions	469 756	-	-	-	-	-	-
Other	- 183 416	150 150	-	-	-	3 438	37 377
Tax effect on group contributions	-	26 947	5 317	13 355	136	842	7 312
Group contributions	-	- 96 238	- 18 988	- 47 698	- 516	- 3 203	- 27 803
Equity CB	345 182	464 974	448 669	114 475	111 183	78 568	110 278
Aleris omsorg AB							
Equity OB	94 264	77 388	78 590	97 186	92 493	87 285	100 159
+Profit	33 124	18 270	11 349	- 11 402	33 434	42 576	64 373
-Dividend	- 50 000	-	-	-	-	-	-
+Equity issue	-	-	-	-	-	-	-
+Shareholder contributions	-	-	-	-	-	-	-
Other	-	-	-	-	-	8 517	-
Tax effect on group contributions	-	6 638	- 2 818	- 2 610	13 790	13 638	23 426
Group contributions	-	- 23 706	10 065	9 319	- 52 432	- 51 857	- 89 074
Equity CB	77 388	78 590	97 186	92 493	87 285	100 159	98 885

Table (xvii)b – Change in equity for Attendo (tSEK)

	2005*	2006**	2007***	2008	2009	2010	2011
Attendo AB							
Equity OB	n.a.	n.a.	366 646	625 642	626 454	433 614	385 095
+Profit	n.a.	n.a.	2 290	32 538	- 45 922	2 655	2 628
-Dividend	n.a.	n.a.	-	-	-	-	-
+Equity issue	n.a.	n.a.	263 431	1 626	-	36 748	-
+Shareholder contributions	n.a.	n.a.	-	-	-	-	-
Other	n.a.	n.a.	-	-	-	23 069	- 9 997
Tax effect on group contributions	n.a.	n.a.	2 615	12 969	52 428	23 143	-
Group contributions	n.a.	n.a.	- 9 340	- 46 322	- 199 346	- 87 996	-
Equity CB	n.a.	n.a.	625 642	626 454	433 614	385 095	377 726
Attendo Intressenter AB							
Equity OB	n.a.	100	292 147	331 990	161 237	174 470	204 059
+Profit	n.a.	- 90 872	- 179 261	- 255 757	- 305 928	- 324 823	- 325 030
-Dividend	n.a.	-	-	-	-	-	-
+Equity issue	n.a.	368 912	-	1 626	-	-	-
+Shareholder contributions	n.a.	-	97 957	-	-	-	-
Other	n.a.	14 007	7 677	- 157 020	13 245	31 568	34 424
Tax effect on group contributions	n.a.	-	- 44 127	- 93 489	- 109 167	- 115 207	- 135 882
Group contributions	n.a.	-	157 597	333 887	415 085	438 050	516 661
Equity CB	n.a.	292 147	331 990	161 237	174 470	204 059	294 232
Attendo Group AB							
Equity OB	86 590	205 575	287 989	293 363	286 003	284 512	283 025
+Profit	5 338	- 153 480	- 160 474	- 88 985	- 111 996	- 107 293	- 107 035
-Dividend	-	- 998	- 1 487	-	- 1 487	- 1 487	-
+Equity issue	35 499	-	-	-	-	-	-
+Shareholder contributions	131	-	-	-	-	-	-
Other	- 10 780	-	-	-	-	-	-
Tax effect on group contributions	- 34 533	- 92 125	- 65 075	- 31 743	- 39 965	- 38 288	- 38 199
Group contributions	123 330	329 017	232 410	113 368	151 957	145 581	145 242
Equity CB	205 575	287 989	293 363	286 003	284 512	283 025	283 033
Attendo Holding AB							
Equity OB	290 542	851 778	849 506	852 936	851 332	851 050	850 794
+Profit	579 066	16 131	22 693	58 852	16 865	9 355	6 346
-Dividend	- 100 440	-	-	-	-	-	-
+Equity issue	-	-	-	-	-	-	-
+Shareholder contributions	-	-	-	-	-	-	-
Other	71 764	-	1 790	-	-	-	-
Tax effect on group contributions	- 4 218	7 157	8 185	23 512	6 119	3 429	2 356
Group contributions	15 064	- 25 560	- 29 238	- 83 968	- 23 266	- 13 040	- 8 958
Equity CB	851 778	849 506	852 936	851 332	851 050	850 794	850 538
Attendo Sverige AB/Attendo Care AB							
Equity OB	78 060	52 596	71 245	9 989	242 689	168 727	390 900
+Profit	111 118	122 878	185 121	140 693	163 198	164 789	186 662
-Dividend	-	-	-	-	-	-	-
+Equity issue	-	-	-	-	-	-	-
+Shareholder contributions	-	142 261	-	305 000	-	350 000	190 000
Other	- 10 464	- 26 712	582	-	-	-	-
Tax effect on group contributions	49 046	85 469	96 039	82 830	84 632	104 420	86 380
Group contributions	- 175 164	- 305 247	- 342 998	- 295 823	- 321 792	- 397 036	- 328 443
Equity CB	52 596	71 245	9 989	242 689	168 727	390 900	525 499

*Numbers from 2005/05/01 - 2005/12/31

**Numbers from 2006/05/01 - 2007/04/30 for Attendo Intressenter

***Numbers from 2007/05/01 - 2007/12/31

Table (xvii)c - Change in equity Carema (tSEK)

	2005*	2006	2007	2008	2009	2010**	2011***
Carema Holding AB/Ambea AB (from 2007)							
Equity OB	n.a	220 900	450 800	484 900	558 000	673 600	-
+Profit	14 200	- 104 600	- 87 200	- 34 100	- 87 400	- 398 700	-
-Dividend	-	-	-	-	-	-	-
+Equity issue	167 900	183 300	200	-	-	100	-
+Shareholder contributions	-	- 34 000	-	-	-	127 300	-
Other	38 800	45 900	- 10 900	- 13 500	- 6 400	140 100	-
Tax effect on group contributions	-	- 54 200	- 51 200	- 46 900	- 74 700	- 46 900	-
Group contributions	-	193 500	183 200	167 600	284 000	178 300	-
Equity CB	220 900	450 800	484 900	558 000	673 600	-	-
Carema vård och omsorg AB							
Equity OB	270 900	383 500	266 500	368 300	350 000	332 914	329 010
+Profit	- 38 900	- 16 000	- 47 000	- 46 100	- 48 325	- 9 918	- 1 805
-Dividend	-	- 117 100	-	-	-	-	-
+Equity issue	-	-	-	-	-	-	-
+Shareholder contributions	-	-	115 000	10 000	-	-	-
Other	38 400	-	-	-	-	-	-
Tax effect on group contributions	- 44 000	- 6 200	- 13 200	- 6 900	- 11 151	- 2 146	- 631
Group contributions	157 100	22 300	47 000	24 700	42 400	8 160	2 400
Equity CB	383 500	266 500	368 300	350 000	332 914	329 010	328 974
Carema Care AB							
Equity OB	164 288	162 713	188 323	186 463	186 463	186 463	186 463
+Profit	79 045	145 952	158 541	-	-	-	-
-Dividend	-	- 20 000	-	-	-	-	-
+Equity issue	-	-	-	-	-	-	-
+Shareholder contributions	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-
Tax effect on group contributions	31 352	39 022	62 378	-	-	-	-
Group contributions	- 111 972	- 139 363	- 222 780	-	-	-	-
Equity CB	162 713	188 323	186 463	186 463	186 463	186 463	186 463
Carema Äldreomsorg AB							
Equity OB	129 365	129 365	112 268	113 205	115 853	115 853	115 853
+Profit	-	813	-	-	-	-	-
-Dividend	-	- 20 000	-	-	-	-	-
+Equity issue	-	-	-	-	-	-	-
+Shareholder contributions	-	-	-	3 000	-	-	-
Other	-	-	936	- 350	-	-	-
Tax effect on group contributions	-	1	-	-	-	-	-
Group contributions	-	2 089	-	-	-	-	-
Equity CB	129 365	112 268	113 205	115 853	115 853	115 853	115 853

*Numbers from 2005/03/01 - 2005/12/31

**Numbers from 2010/05/01 - 2011/04/30

***Numbers from 2011/05/01 - 2011/12/31

Table (xvii)d – Change in equity A&O (tSEK)

	2005	2006	2007	2008	2009	2010	2011
Equity OB	18 519	16 309	10 968	2 633	3 095	1 056	1 394
+Profit	- 632	876	- 5 335	1 462	- 689	- 1 162	3 706
-Dividend	- 1 577	- 6 500	- 3 000	- 1 000	- 1 350	-	-
+Equity issue	-	-	-	-	-	-	-
+Shareholder contributions	-	-	-	-	-	1 500	-
Other	-	-	-	-	-	-	-
Tax effect on group contributions	-	-	-	-	-	-	-
Group contributions	-	282	-	-	-	-	-
Equity CB	16 309	10 968	2 633	3 095	1 056	1 394	5 100

Table (xvii)e - Change in equity Förenade Care (tSEK)

	2005	2006	2007	2008	2009	2010	2011
Equity OB	37 248	44 654	51 958	65 589	81 176	92 607	102 397
+Profit	14 202	8 104	22 217	15 587	21 431	19 790	32 387
-Dividend	-	-	-	-	-	-	-
+Equity issue	-	-	-	-	-	-	-
+Shareholder contributions	-	-	-	-	- 10 000	- 10 000	- 16 400
Other	-	-	-	-	-	-	-
Tax effect on group contributions	-	-	-	-	-	-	-
Group contributions	- 6 796	- 800	- 8 586	-	-	-	-
Equity CB	44 654	51 958	65 589	81 176	92 607	102 397	118 384

Table (xvii)f - Change in equity KOSMO (tSEK)

	2005	2006	2007	2008	2009	2010	2011
Equity OB	4 831	7 433	8 456	9 385	9 937	9 415	15 320
+Profit	2 602	37	929	552	978	7 686	3 722
-Dividend	-	- 550	-	-	-	- 1 780	-
+Equity issue	-	100	-	-	-	-	-
+Shareholder contributions	-	3 106	-	-	-	-	-
Other	-	- 1 669	-	-	- 1 500	-	-
Tax effect on group contributions	-	-	-	-	-	-	-
Group contributions	-	-	-	-	-	-	-
Equity CB	7 433	8 456	9 385	9 937	9 415	15 320	19 042

Note: Fiscal year ends 04/30.

Table (xviii)a - Debt overview Aleris (tSEK)

	2005	2006	2007	2008	2009	2010	2011	Change*
Aleris Holding AB								
Equity	509 879	607 229	606 510	696 807	740 433	1 657 754	2 675 199	45%
Debt (total)	1 307 644	1 455 732	1 660 209	2 118 810	2 044 323	1 508 677	2 544 964	56%
Short term	314 977	355 944	427 160	681 846	604 138	381	707 723	
Long term	992 667	1 099 788	1 233 049	1 436 964	1 440 185	1 508 296	1 837 241	
Debt/Equity	2.56	2.40	2.74	3.04	2.71	0.90	0.98	0.15
Cash flow from operations	-	44 841	151 853	89 671	- 89 680	-	-	
Cash flow from investments	- -	352 595	- 243 781	- 368 887	- 1 354	-	-	
Cash flow before financing	- -	307 754	- 91 928	- 279 216	- 91 034	-	-	
Amortization	-	199 672	112 598	339 012	123 985	-	-	
Aleris AB								
Equity	345 182	464 974	448 669	114 475	111 183	78 568	110 278	-68%
Debt (total)	321 958	326 193	112 681	432 960	166 914	141 738	239 848	-48%
Short term	321 958	326 193	112 681	432 960	166 914	141 738	239 848	
Long term	-	-	-	-	-	-	-	
Debt/Equity	0.85	0.66	0.27	3.17	1.30	1.45	2.13	0.45
Cash flow from operations	10 250	85 812	11 429	15 762	48 268	- 57 104	11 599	
Cash flow from investments	- 25 329	- 85 895	- 11 607	- 15 813	- 48 418	57 127	- 5 422	
Cash flow before financing	- 15 079	- 83	- 178	- 51	- 150	23	6 177	
Amortization	-	-	-	-	-	-	-	
Aleris omsorg AB								
Equity	77 388	78 590	97 186	92 493	87 285	100 160	98 885	13%
Debt (total)	114 591	109 576	118 685	335 889	82 325	137 714	196 019	-28%
Short term	114 591	109 576	118 685	335 889	82 325	137 714	196 019	
Long term	-	-	-	-	-	-	-	
Debt/Equity	1.30	1.23	1.07	3.07	0.83	1.23	1.99	-0.47
Cash flow from operations	- 84 208	2 157	5 312	2 672	1 541	2 132	14 832	
Cash flow from investments	19 004	- 2 236	- 5 337	- 2 526	- 1 503	- 2 084	- 14 827	
Cash flow before financing	- 65 204	- 79	- 25	146	38	48	5	
Amortization	-	-	-	-	-	-	-	

*Change over longest available investment horizon

Note: The darker numbers represent the longest available holding period since the first leveraged buyout.

Debt/Equity=(Debt+Provisions+Corporate Tax rate*Untaxed Reserves)/(Equity+Untaxed Reserves*(1-Corporate Tax rate)).

Table (xviii)b - Debt overview Attendo (tSEK)

	2005*	2006**	2007***	2008	2009	2010	2011	Change****
Attendo AB								
Equity	-	-	625 642	626 454	433 614	385 095	377 726	-40%
Debt (total)	-	-	2 154 578	2 631 465	3 266 842	3 536 207	4 218 317	96%
Short term	-	-	30 697	73 728	386 804	388 691	3 917 609	
Long term	-	-	2 123 881	2 557 737	2 880 038	3 147 516	300 708	
Debt/Equity	-	-	3.44	4.20	7.53	9.18	11.17	7.72
Cash flow from operations	-	-	34 398	10 697	4 566	5 216	40 712	
Cash flow from investments	-	-	-	1 648	31	-	11	
Cash flow before financing	-	-	34 398	9 049	4 597	5 216	40 723	
Amortization	-	-	-	-	-	-	-	
Attendo Intressenter AB								
Equity	-	292 147	331 990	161 237	174 470	204 059	294 232	-11%
Debt (total)	-	4 312 172	6 650 603	7 498 269	7 630 951	7 621 348	7 731 278	16%
Short term	-	195 634	292 648	58 391	174 575	212 649	40 207	
Long term	-	4 116 538	6 357 955	7 439 878	7 456 376	7 408 699	7 691 071	
Debt/Equity	-	14.76	20.03	46.50	43.74	37.35	26.28	6.24
Cash flow from operations	-	43 277	184 655	107 920	104 831	-	-	
Cash flow from investments	-	2 647 054	134 657	3 067	620	-	-	
Cash flow before financing	-	2 690 331	319 312	110 987	105 451	-	-	
Amortization	-	-	-	18 480	241 497	-	-	
Attendo Group AB								
Equity	205 575	287 989	293 363	286 003	284 512	283 025	283 033	-4%
Debt (total)	2 248 700	2 293 042	2 198 163	2 125 213	2 122 913	2 122 887	2 122 913	-3%
Short term	418 977	2 293 042	399 813	326 863	28	2	28	
Long term	1 829 723	-	1 798 350	1 798 350	2 122 885	2 122 885	2 122 885	
Debt/Equity	1.29	1.91	10.94	7.33	6.87	7.43	7.46	-3.48
Cash flow from operations	-	-	66 073	11 931	111 930	-	-	
Cash flow from investments	-	-	20 220	2 984	-	-	-	
Cash flow before financing	-	-	86 293	14 915	111 930	-	-	
Amortization	-	-	431 278	64 816	-	-	-	
Attendo Holding AB								
Equity	851 778	849 506	852 936	851 332	851 050	850 794	850 538	0%
Debt (total)	271 803	164 637	303 556	288 950	652 516	1 101 442	1 621 152	434%
Short term	271 803	164 637	303 556	288 950	652 516	1 101 442	1 621 152	
Long term	-	-	-	-	-	-	-	
Debt/Equity	0.32	0.20	0.36	0.34	0.77	1.29	1.91	1.55
Cash flow from operations	-	78 121	136 636	32 724	-	-	-	
Cash flow from investments	655 802	29 937	-	-	-	-	-	
Cash flow before financing	577 681	106 699	32 724	-	-	-	-	
Amortization	104 958	37 070	-	-	-	-	-	
Attendo Sverige AB/Attendo Care AB								
Equity	52 596	71 245	9 989	242 689	168 727	390 900	525 499	5161%
Debt (total)	900 436	959 287	947 937	74 043	831 959	999 891	850 999	-10%
Short term	419 186	654 287	641 628	74 043	831 959	999 891	850 999	
Long term	481 250	305 000	306 309	-	-	-	-	
Debt/Equity	13.24	9.98	26.85	0.33	4.96	2.63	1.68	-25.17
Cash flow from operations	163 131	285 153	542 193	287 255	364 390	308 855	77 203	
Cash flow from investments	-	272 686	135 781	31 509	62 309	14 156	35 731	42 152
Cash flow before financing	-	109 555	149 372	573 702	224 946	350 234	273 124	35 051
Amortization	76 208	176 250	-	-	-	-	-	

*Numbers from 2005/05/01 - 2005/12/31

**Numbers from 2006/05/01 - 2007/04/30 for Attendo Intressenter

***Numbers from 2007/05/01 - 2007/12/31

****Change over longest available investment horizon

Note: The darker numbers represent the longest available holding period since the first leveraged buyout.

Debt/Equity=(Debt+Provisions+Corporate Tax rate*Untaxed Reserves)/(Equity+Untaxed Reserves*(1-Corporate Tax rate)).

Table (xviii)c - Debt overview Carema (tSEK)

	2005*	2006	2007	2008	2009	2010**	2011***	Change***
Carema Holding AB/Ambea AB								
Equity	220 900	450 800	484 900	558 000	673 600	3 755 472	3 819 592	205%
Debt (total)	1 740 000	3 204 700	3 417 400	3 483 600	3 321 300	314 240	323 440	91%
Short term	182 900	100 600	85 700	118 500	86 000	314 240	323 440	
Long term	1 557 100	3 104 100	3 331 700	3 365 100	3 235 300	-	-	
Debt/Equity	7.88	7.18	7.10	6.28	4.95	0.08	0.08	-2.92
Cash flow from operations	19 900	- 62 200	22 300	98 300	- 225 600	-	-	
Cash flow from investments	- 1 855 700	- 1 618 900	- 113 400	36 100	67 200	-	-	
Cash flow before financing	- 1 835 800	- 1 681 100	- 91 100	134 400	- 158 400	-	-	
Amortization	-	126 000	3 289 200	88 800	108 400	-	-	
Carema vård och omsorg AB								
Equity	383 500	266 500	368 300	350 000	332 914	329 010	328 974	-13%
Debt (total)	60 500	158 000	147 500	634 100	352 426	176 690	174 891	483%
Short term	60 500	158 000	147 500	634 100	352 426	176 690	174 891	
Long term	-	-	-	-	-	-	-	
Debt/Equity	0.16	0.59	0.40	1.81	1.06	0.54	0.53	0.89
Cash flow from operations	- 143 900	- 74 400	69 100	-	-	-	-	
Cash flow from investments	- 9 300	- 17 000	14 000	-	-	-	-	
Cash flow before financing	- 153 200	- 91 400	83 100	-	-	-	-	
Amortization	32 700	-	-	-	-	-	-	
Carema Care AB								
Equity	162 713	188 324	186 463	186 463	186 463	186 463	186 463	15%
Debt (total)	134 121	361 953	504 700	486 305	292 493	509 862	514 202	118%
Short term	134 121	174 766	317 513	345 618	291 305	509 862	514 202	
Long term	-	187 187	187 187	140 687	1 188	-	-	
Debt/Equity	0.82	1.90	2.69	2.59	1.56	2.73	2.76	0.74
Cash flow from operations	-	77 428	- 11 159	- 60 070	- 37 216	- 112 282	- 9 309	
Cash flow from investments	-	244 739	- 992	3 521	146	- 113 757	- 5 360	
Cash flow before financing	-	167 312	- 12 151	- 56 549	- 37 362	- 226 039	- 14 669	
Amortization	32 700	41 000	-	47	69 749	1 188	-	
Carema Äldreomsorg AB								
Equity	129 365	112 268	113 205	115 853	115 853	115 853	115 853	-10%
Debt (total)	151 136	150 688	232 925	287 038	208 801	358 794	233 651	38%
Short term	151 136	150 688	232 925	287 038	208 801	358 794	233 651	
Long term	-	-	-	-	-	-	-	
Debt/Equity	1.16	1.34	2.05	2.44	1.77	3.05	2.00	0.61
Cash flow from operations	19 790	18 275	126 819	33 046	53 665	- 28 069	138 580	
Cash flow from investments	- 11 164	- 1 314	- 31 897	- 10 882	- 4 017	- 7 682	- 5 202	
Cash flow before financing	8 626	16 962	94 922	22 164	49 648	- 35 751	133 378	
Amortization	-	-	-	-	-	-	-	

*Numbers from 2005/03/01 - 2005/12/31

**Numbers from 2010/05/01 - 2011/04/30

***Numbers from 2011/05/01 - 2011/12/31

****Change over longest available investment horizon

Note: The darker numbers represent the longest available holding period since the first leveraged buyout.

Debt/Equity=(Debt+Provisions+Corporate Tax rate*Untaxed Reserves)/(Equity+Untaxed Reserves*(1-Corporate Tax rate)).

Table (xviii)d - Debt overview A&O (tSEK)

	2005	2006	2007	2008	2009	2010	2011	05-09	07-11
Equity	16 309	10 968	2 633	3 095	1 056	1 394	5 100	6%	194%
Debt (total)	6 716	11 398	10 186	12 601	22 526	23 050	27 630	335%	271%
Short term	5 783	6 050	6 105	9 819	18 474	21 016	25 820		
Long term	933	5 348	4 081	2 782	4 052	2 034	1 810		
Debt/Equity	0.56	1.23	4.55	4.62	22.16	16.86	5.57	21.59	1.02
Cash flow from operations	-	-	-	-	-	-	-		
Cash flow from investments	-	-	-	-	-	-	-		
Cash flow before financing	-	-	-	-	-	-	-		
Amortization	-	-	-	-	-	-	-		

Note: Debt/Equity=(Debt+Provisions+Corporate Tax rate*Untaxed Reserves)/(Equity+Untaxed Reserves*(1-Corporate Tax rate)).

Table (xviii)e - Debt overview Förenade Care (tSEK)

	2005	2006	2007	2008	2009	2010	2011	05-09	07-11
Equity	44 654	51 958	65 589	81 176	92 607	102 397	118 384	207%	180%
Debt (total)	84 875	129 323	124 399	117 186	119 913	135 972	151 421	141%	122%
Short term	62 548	97 684	93 264	96 635	103 663	120 722	137 171		
Long term	22 327	31 639	31 135	20 551	16 250	15 250	14 250		
Debt/Equity	1.72	2.13	1.61	1.23	1.07	1.09	1.04	-0.65	- 0.56
Cash flow from operations	28 923	1 609	15 010	31 188	20 159	15 161	49 353		
Cash flow from investments	- 42 557	- 20 918	- 5 759	- 12 721	- 26 455	- 24 549	- 27 686		
Cash flow before financing	- 13 634	- 19 309	9 251	18 467	- 6 296	- 9 388	21 667		
Amortization	500	625	1 000	1 000	1 000	1 000	1 000		

Note: Debt/Equity=(Debt+Provisions+Corporate Tax rate*Untaxed Reserves)/(Equity+Untaxed Reserves*(1-Corporate Tax rate)).

Table (xviii)f - Debt overview KOSMO (tSEK)

	2005	2006	2007	2008	2009	2010	2011	05-09	07-11
Equity	7 433	8 456	9 385	9 937	9 415	15 320	19 042	127%	203%
Debt (total)	17 508	17 290	19 653	28 053	78 847	69 253	107 758	450%	548%
Short term	679	-	-	-	16 158	13 975	11 781		
Long term	-	-	-	-	-	-	-		
Debt/Equity	2.61	2.07	2.12	2.85	10.15	5.60	6.40	7.54	4.28
Cash flow from operations	-	-	5 266	4 366	16 783	2 960	24 020		
Cash flow from investments	-	-	2 403	1 681	19 001	1 987	5 311		
Cash flow before financing	-	-	7 669	2 685	2 218	973	18 709		
Amortization	-	-	-	-	-	2 183	2 195		

Note: Fiscal year ends 04/30

Note: Debt/Equity=(Debt+Provisions+Corporate Tax rate*Untaxed Reserves)/(Equity+Untaxed Reserves*(1-Corporate Tax rate)).