Private equity investment in Dutch medical specialist care

Using an agency cost framework to explore strategies for investment success, for investors and the public

Content	Master Thesis Systems Engineering, Policy Analysis and Management
Author	J.F. Zijlstra
Student number	1264796
Institution	Delft University of Technology
Faculty	Technology, Policy & Management
Section	Policy, Organisation, Law & Gaming
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Graduation committee

Prof. Mr. Dr. J.A. de Bruin	TU Delft, Section Policy, Organization, Law & Gaming
Dr. W.M. Dicke	TU Delft, Section Policy, Organization, Law & Gaming
Dr. R. Künneke	TU Delft, Section Economics of infrastructures
R. Tillemans	KPMG, Strategic and Commercial Intelligence

Preface and acknowledgments

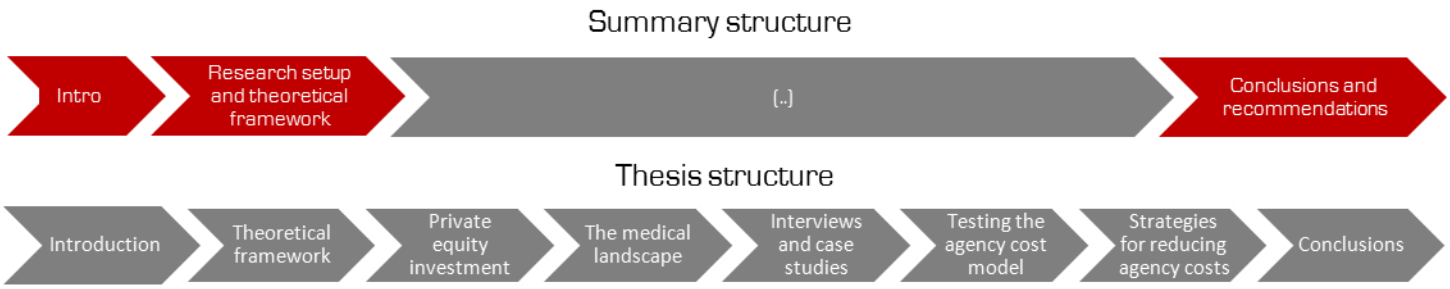
This report presents the thesis with which my studies (First Bsc. and now Msc.) of Systems Engineering, Policy Analysis and Management at the TU Delft are completed. My attention was drawn to the subject of private equity investment in medical care, because of the announcement of a law proposal, lifting the ban on profit distribution from the core of medical care in the Netherlands. I perceived this law as a great opportunity for investors. I was at that time wrongly assuming that a ban on profit distribution would actually mean that no profit would be distributed in practice and that investors were deterred from medical investment for that reason. This proved just an example of the many ambiguities and surprising realities in current medical care. I learned a lot about the complex workings of our medical system in transition and about the workings of private equity investment. What I did perceive from the start was that interesting conflicts between private and public interests are linked to medical care investment. In that regard I was able to use diverse knowledge and methods from my studies, that often focussed on liberalisation and privatization of utility sectors. In the end I remain mildly optimistic about the course of Dutch healthcare and hope that private investment will be allowed and regulated in a way that the potential for both private and public benefits is realized. Just a week before the finalization of this document, the law on profit distribution has been declared 'controversial', which makes me glad I quickly shifted my initial focus.

First I would like to thank the members of my graduation committee. Willemijn Dicke, for the regular input, outline, detailed content and process related, which especially helped me to stay motivated and set clear and feasible targets. Rick Tillemans, for the guidance on structure and the help contacting the key players of medical care investment. Rolf Künneke, specifically for the help with the theoretical framework, as I struggled to make it useable, which greatly improved the academic relevance of the thesis. Finally Hans de Bruin, for heading the committee meetings, which all provided me with a lot of useful comments and in this way added significant value to my research.

I really enjoyed the interviewing phase of the research as it forced me to learn and understand fast to make the most out of each consecutive interview and therefore provided the most understanding in a relatively short time. Several of the respondents also helped me in later stages by answering additional questions. I am therefore grateful to Maarten Akkerman, Wouter Bos, Wim Haring, Aart den Hartog, Mirjam ter Horst, Marco Kerkvliet, Ed de Kluiver, Frank van Lennep, Bart Peletier, Igor Tulevski, Paul Venhoeven and Felix Zijlstra. The discussions with respondents provided the backbone of the findings in this thesis.

Several other people, at KPMG, at the TU Delft and personal relations, helped me during the research, with information, linking me to other people or as sparring partners to help me structure and deepen the analysis. In particular Dirk Faber, who played an important role by introducing me to several of the respondents. Also my parents: Felix Zijlstra for repeated reviews of my work, which allowed me to improve and validate my analysis of the medical care landscape; Beatrijs Zijlstra-Bauer, for reviewing my final version. I enjoyed the company and the experience at KPMG SCI. Thank you all for your assistance and support.

Executive summary



Introduction

Dutch medical specialist care faces a challenge: to provide higher quality, quantity and specificity of medical care for all, with significantly less relative public financing, in the next decades. Private equity investment can be a solution, as public financing is substituted by private capital and for profit ownership may drive the high potential gains in terms of quality and efficiency that are now not materializing. Furthermore the percentage of private capital in medical care has been steadily growing and is likely to do so in the coming years. The lack of for profit hospital ownership in the Netherlands is furthermore exceptional in Europe. Investment in medical care is an opportunity for the investor, as the growing demand and high potential for added value promise growing and high returns. However investors have been reluctant to invest in medical care and there are only a few players active so far. This is mainly because investors have been deterred by the high governance complexity with respect to the operational core of medical specialists and high political, legislator and market uncertainty deriving from the heavy public value debate. Furthermore private investment can be a risk for the public values of medical care: quality, accessibility and affordability.

Research setup and theoretical framework

Therefore this thesis takes the viewpoint of a private equity investor and answers the research question: *How can private equity investment in medical specialist care be a durable success?* Success is considered durable in this thesis, when both the private interests of key actors as the public interests are furthered by the investment. This question is approached with a theoretical framework. Agency theory is introduced to deal with the governance complexity, where information asymmetry with regard to the medical specialists is high and interests are often not aligned. Public value theory is added to deal with the public value driven uncertainty, with focus on the need for system optimality while public value trade-offs often emerge locally. The private equity investment way of working and the Dutch medical specialist care landscape are evaluated to provide additional focus points. This leads to a basic model of agency cost reduction. Based on the framework and other focus points, interviews with key actors and case studies were performed. Systematic analysis of the results of the empirical research provides six key obstacles, or sources of agency costs and strategies for addressing these with monitoring and bonding mechanisms.

Conclusions and recommendations

The theoretical framework proves applicable: private equity investment in Dutch medical specialist care can be durably successful, when agency costs due to information asymmetry and interests divergence are reduced between key actors. On an operational level this means between the medical specialists and management of the institution as well as between the institution invested in and the preceding and consecutive care providers that are needed to provide a quality total care process. On an institutional level the agency costs between management, debt providers, equity investors and insurers must be reduced. Through the insurers the interests of the other mentioned actors must be aligned with the public interests. Two generic approaches appear for which a positive result of the agency cost trade-off between obstacles met and strategies implemented is feasible. This is a ZBC venture/ growth or a hospital turnaround approach, which can be combined into an investment in a hospital in distress with a turnaround and participation in spin-off ZBC's. Most strategies rely on the interaction between medical specialists and management,

confirming the governance complexity for this relation as most crucial. Exposure to high uncertainty can be reduced, but public value driven uncertainty nonetheless appears as inevitable for Dutch medical care investment. Both approaches are currently not a complete fit for private equity houses and especially a hospital turnaround better suits a more long term investor, which still works hands on, such as family offices. On a longer term developments in the landscape such as concentration, completion of payment for performance are likely to reduce agency costs and improve the perspective of successful investment for both private parties and the public.

The results lead to recommendations for an investor, from a public point of view and for follow-up research.

- An investor increases the likelihood of success when
    - Choosing a repeatable approach and selecting specific assets to maximize simplicity, non-adversity, regional portfolio fit and financial prospects
    - Configuring governance to balance investor return, internal alignment and incumbent networking
    - Focusing on shifting the medical specialists to an aligned position
    - Using information systems to reduce agency costs with respect to insurers, specialists and other care providers
    - Monitoring legislative, political and market developments and not let uncertainty lead to indecision
- From a public point of view, benefits are to be expected from
    - Using incentive structures in subtle addition to professional ethics and other mechanisms leading to the right behaviour
    - Focusing policy on local - system goal alignment, clear market rules and central direction for complex and acute care
    - Direction from government and strong insurers to fulfil the optimal future landscape of medical care as since long described but yet unrealized
    - Dealing with the maatschap in its current form, not by solely forcing specialists under contract but by aligning their interests with the institutions' and the public interests with ownership, incentive structures and fusing honorarium with other costs remuneration
- Interesting directions for future research are:
    - Practice variation research
    - Studying hospital organizational structure to reduce the current interest divergence; optimizing governance
    - Researching informational infrastructures, electronic resource planning and performance measurement for medical care
    - Due diligence and valuation of medical care investment objects

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1 Introduction

Introduction

The subject of this thesis is private equity investment in medical specialist care. Private equity investment is a high risk asset class, while medical specialist care is probably one of the most vulnerable and crucial basic rights the Dutch people perceive to be provided by the state. Recently (in April 2012), Dutch government proposed to allow profit distribution, leading to a new wave of public debate. Some objections: "it is unjust to profit from another's' illness", "private equity will disband hospitals and dilute quality as they only aim at highest profit", "care will become elitist". "Healthcare is not a market", "public money should not end up in private hands". Only few seem to notice that for instance high profits are abundant in medical care for various actors, for-profit parties often improve quality, several markets long exist and only a small part of funding is truly public. Medical care is not a utopia of selfless specialists helping people, neither a purely financially incentivized machinery. There is room for public and private interests. So when are all such interests served? When such interests are aligned and the players of the medical investment field can clearly see what the others are doing.

1.1 Problem description

Medical specialist care in the Netherlands has been, and is, changing rapidly (1.1.1). Private equity investment is an opportunity for investors, but there are obstacles for these investors and risks for the accessibility, quality and affordability of care (1.1.2). Therefore successful private equity investment in medical specialist care has only just taken off. This thesis takes the perspective of an investor considering investing in medical specialist care in the Netherlands (1.1.3).

1.1.1 The need for change in Dutch medical specialist care

Short definition

Medical specialist care is cure professed by medical specialists, in academic, general, categorical hospitals and clinics. This care is paid for through insurance fees from citizens to insurance companies, who fund the hospitals through the healthcare insurance act: Zorgverzekeringswet (Zvw). The system is legislated and controlled by the ministry of healthcare and institutions such as the Nederlandse Zorg Autoriteit (NZA).

The necessity to increase quality relative to costs

As for instance analysis by Kuenen, Mohr et al. (2011) shows, Dutch healthcare is currently of the highest quality in Europe and therefore in the world. Costs are also among the highest, but the quality for costs ratio is among the best[1]. Although the current state of care seems satisfactory this way, medical care is in a state of transition, driven by several developments. Spending on medical specialist care is currently around 10% of Dutch Gross National product, with the potential to grow to 18% in 2040. When this growth is financed publicly, large marginal tax increases are likely to reduce welfare and limit economic growth (Ewijk 2011). Figure 1.1 shows the most important factors behind this development.

[1] The notes to the analysis explain that this analysis is somewhat volatile. For instance in 2009 the analysis showed Dutch care as the highest quality, but less expensive than some other countries. Such shifts are a matter of definition. Data measurement per country also differs. Nonetheless the general conclusions that Dutch care is of very high quality, high costs and high quality for costs compared to the rest of Europe in general, remain feasible.

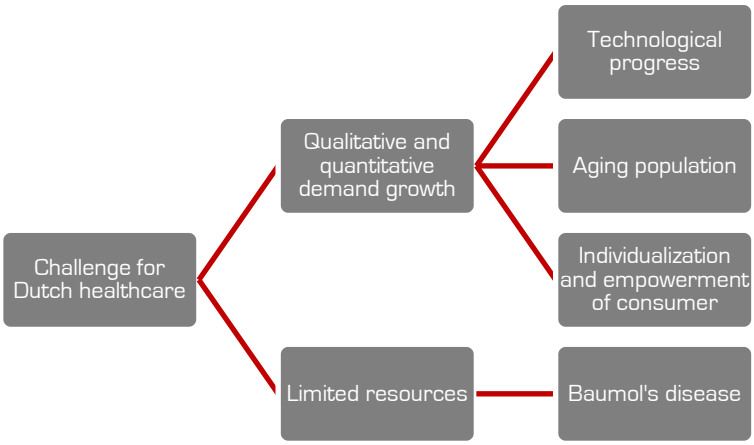


Figure 1-1: Drivers behind long term development of healthcare costs

Drivers behind the challenge

Technological progress is a strong driver behind the growth of demand, through supply. Supply of healthcare is strongly pushed by biomedical and technical science (Bos, Koevoets et al. 2011)[2]. The aging population is perhaps the most obvious underlying trend. The consumer, used to increasing well-being, demands more and more quality (Bos, Koevoets et al. 2011). The consumer or patient is also increasingly able to enforce his demands, mainly because of the increasing availability of information. Through the insurance companies, the patients exert increasing power over the medical specialists and hospital management, although this power is not yet sufficiently strong (Kerste and Kok 2010). Baumol's disease (Baumol 1993) is the effect that sectors that rely heavily on manual labour will experience lower productivity growth than other sectors. This means that labour productivity in these sectors, such as healthcare, will increase only marginally while costs grow with Gross National Product. Healthcare costs will therefore become an increasingly bigger part of Gross National Product (CPB 2011; Maarse 2011). The aging population, together with a more health focussed attitude, leads to more intensive and specific consumption of healthcare services. Together with technological progress this turns diseases that were once deadly into chronic, once again increasing demand (Bos, Koevoets et al. 2011). These factors and developments lead to the long term growth of demand in face of limited resources. How to accomodate the demand for higher quality, quantity and specificity of care, with the limited public financing space available? This is the main challenge for Dutch healthcare (RVZ 2011).

Dutch medical specialist care is developing quickly, as for instance (Veld 2011) explains. The described growth in costs is reacted to by a policy shift: Dutch government has been trying to shift from supply based, to demand based mechanisms for healthcare production (figure 1.2).

A system in transition

Figure 1-2: Transition in Dutch healthcare, driven by funding mechanisms

[2] Technological progress does not only increase challenges for Dutch healthcare, it is also alleviates some problems as innovations enable delivering better quality compared to costs in due time.

Before 2005 healthcare funding was based on function based budgeting ('FB systematiek'). A hospital would get a budget for an amount of a certain treatment based on parameters such as historic production and adherence. Then the hospital would be funded based on a centrally determined price for each treatment and could pass on real estate and interest costs. The majority of funding changed little over the years. Costs for treatments above the budget would not be fundable. Efficiency gains would lead to profit and lower budget for the next year. By introducing DBC's in 2005, a better fit between performance and funding was created. A DBC (Diagnose Behandel Combinatie) is a combination of a diagnosis and a treatment, for which funding can be claimed. Funding is becoming more dynamic. DBC's are divided in two segments. There is an A segment of DBC's, which are still budgeted, but also a B segment where care providers and insurance companies can negotiate prices and production. The B segment started at around 10% of DBC's, but is now around 34%, intended to grow to 70%. Because real estate and interest is to be funded through produced DBC's, the funding also becomes less fixed. This completion of funding based on performance is a next step in the transition, which also includes various other measures, for instance encouraging more selective consumption of care. The lessons learned in 7 years of DBC's are also translated into new definitions of diagnosis treatment combinations, called the DOT product line (DOT stands for 'DBC's underway to transparency'). Medical specialist care is thus facing heavy policy changes, with funding as key driver.

Funding changes direct the transition

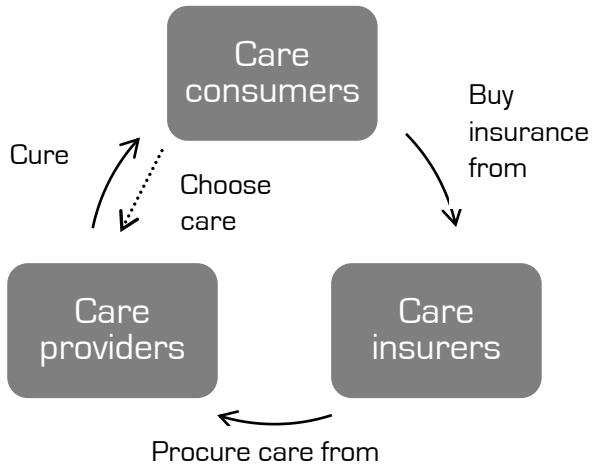


Figure 1-3: Key actor categories

Changes affecting all actors

The effects of these changes are felt by all actors in Dutch medical specialist care (Maarse 2011). Key actor categories are the care consumers (patients), the care providers (hospitals, clinics, etc.), the insurance companies and various legislative and regulatory institutions (Winter 2011) These actors operate on three markets (figure 1.3) and face more market risks and are therefore showing more and more strategic behaviour (RVZ 2011). Maarse (2011) explains why these actors perceive the changes as more than a shift in goals and means. It is a shift in policy paradigm: from a stable situation where government planned all care, to a dynamic field were various actors' combined actions will shape how Dutch medical specialist care works.

1.1.2 Private equity investment as solution, opportunity and risk

Part of the perceived solution to the increase of (specific) care demand in light of limited public resources, is the substitution of public by private financing. Government plans, include policy to encourage this substitution:

Shift from public to private financing

•Winstuitkering in de zorg (VVD-CDA 2010)

In 2006 is gekozen voor een zorgstelsel dat uitgaat van beloning naar prestatie. Dat proces is nog niet afgerond en daarom bevinden we ons op dit moment in een ongunstige situatie (het slechtste van twee werelden). Om een grote kwaliteitsslag te kunnen maken, is geld nodig. Dit geld hoeft niet alleen van de overheid te komen. Als er extra geld uit de private markt de zorgsector kan worden ingetrokken zal dit tot grote verbeteringen kunnen leiden. Om dit geld aan te kunnen trekken, is het nodig dat ook rendement kan worden gemaakt. Daarom wordt een gereguleerde winstuitkering in de zorg ingevoerd. Dat moet er toe leiden dat extern (privaat) kapitaal voor de zorg beschikbaar komt. Met dit externe kapitaal kunnen zorginnovaties, kwaliteitsverbeteringen, een betere patiëntenlogistiek en betere dienstverlening worden ontwikkeld.

This allowance of profit distribution for substitution of public by private financing would reduce the burden on state budget, could bring a more commercial efficiency to the hospital sector through private ownership and could promote innovation and higher quality. Equity financing comes with ownership and risk bearing, with right to residual earnings (Kerste and Kok 2010). By enabling mentioned substitution and increasing efficiency and quality, private equity investment can be a solution for the quality and affordability challenge Dutch public healthcare funding faces.

This thesis will not deal with whether the political decision that has been made (to encourage private investment in medical care) is the right one. Figure 1.4 shows the parts of healthcare funded privately (blue) versus through public distribution (red), in a situation where public funding grows with Gross National Product and private finance fills the gap[3].

Probability of the shift

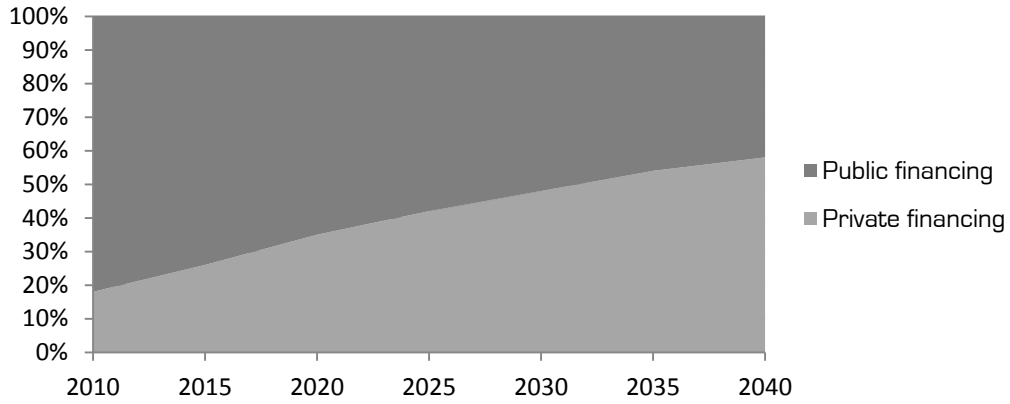


Figure 1-4: Percentage of healthcare financed through private and public means (Bos, Koevoets et al. 2011)

Even when considering marginal tax increases, it is inevitable that private financing will play a bigger role. The Netherlands is one of the few countries in Europe were for profit players are not significantly active as yet (i.e. Adamini, Nelissen et al. 2010). Substitution of public by private means in hospitals is underway and likely to increase in importance, but how and when is uncertain (Steen, Dicke et al. 2010; Bos, Koevoets et al. 2011). This process has been going on for years and therefore only a drastic political shift may change this course of healthcare financing.

Opportunity for investors

As much as the growth of demand, the aim for higher quality and the need for higher efficiency are problematic from a societal point of view, these circumstances represent an opportunity for investors. These problems for the public, translate to steadily growing sales, possibilities to improve service quality and easy gains in terms of efficiency by applying business effectiveness models most investors will be familiar with. Especially now that Health minister Schippers has proposed 'regulated distribution of profits (Schippers 2011), the climate seems right to invest. Investors seem to be gradually picking up on this opportunity, as the amount of investment deals in the core of medical specialist care has been growing for the last years, but is still marginal (Boer&Croon 2011).

Two key blockers for investment success

The opportunities for medical care investment have not been acted on by investors on a large scale, because of two main blockers for investment success that apply to the Dutch medical care system.

[3] Private financing also includes patient contributions ('eigen risico') here.

Firstly, governance of medical care institutions is complicated because of high information asymmetry: the medical specialist has a uniquely autonomous position (Mintzberg 1983). An investor cannot translate his added value strategy to the operational core without control. Secondly private ownership and especially profit distribution can be at odds with public values associated with medical specialist care, such as quality of care, accessibility and affordability (Kerste and Kok 2010). For instance, a for-profit care provider may have incentives to trade-off quality for lower costs and thus higher profits. Because of this public value sensitivity, the rules of the game for medical investment have been highly volatile, exposing the investor to high levels of uncertainty.

The drivers behind the 'more quality for less' challenge, government intention to increase private investment as a solution and lack of this private investment because of 2 main obstacles, lead to the following problem definition:

Problem

Private equity investment success in medical specialist care is currently limited

Success is considered durable in this thesis, when both the private interests of key actors as the public interests are furthered by the investment. Investing in medical specialist care requires a long term view, it is not suitable for quick wins (Winter 2011).

Because private investment in medical specialist care in the Netherlands is in a start-up phase, experiences with, literature on and cases of the subject are limited. The proposed legislation allowing 'regulated distribution of profits' (Schippers 2011), provides an opportunity as attractiveness of investing will increase if the law is passed, along with attention for the possibilities of private equity investment in hospitals and associated public value risks.

The research objective therefore, reads:

Objective

To explore what determines successful private equity investment in medical specialist care, and to design strategies in order to increase this success.

Two steps are discernible, as there will first be an exploration of what determines success as defined and finally a design step formulating strategy. The research objective provides the main goal for this thesis.

1.1.3 Scope and definition

This thesis deals with 'private equity investment' in 'medical specialist care in the Netherlands'. This paragraph looks briefly at what is taken as the scope for these two concepts (the concepts are elaborated on in chapters three and four). Private equity can be seen as an asset class and as an investment style as propagated by private equity houses. As an asset class, private equity means equity that is not traded publicly. In this case it will also not be owned publicly. Private equity houses are institutions dedicated to investing in this asset class. They invest after negotiating a certain position, with a fixed term, implying specific risks and with high expected returns, on behalf of qualified investors (Demaria 2010). More on what private equity investment entails will be dealt with in chapter two. While the focus of this thesis is on how private equity houses may invest in medical specialist equity, this does not mean that conclusions will not be applicable to adjacent fields: for instance a pension fund or family office investing directly in medical care equity.

Private equity investment

In this thesis, medical specialist care means care as mainly financed through public distribution from private insurance contributions, under the Zvw.

Medical specialist care

This choice was made because of three main reasons. This is the part were 6% of Dutch Gross National Product is spend (CPB 2011). For this part profit distribution is restricted and there are only a few private investors involved as yet (Bos, Koevoets et al. 2011). Thirdly, the medical specialist care system is a mix between strong bureaucratic and so far limited but growing market mechanisms, with powerful professionals, delicate balancing of public values and other policy and governance complexity (Dicke, Steenhuisen et al. 2011), making the sector of great interest from a policy analysis and management point of view. The core of this public value and governance complexity lies within medical care as provided by hospitals. Focus of this thesis is therefore on intramural or hospital care, not completely excluding relevance of findings for adjacent care categories.

1.2 Research setup

The setup described in this part of the thesis aims at the fulfilment of the research objective stated in 1.1.2. First research questions are formulated (1.2.1), which are to be addressed by several methods, leading to certain deliverables (1.2.2). Answering these questions with these methods shapes the structure of the thesis (1.2.3).

1.2.1 Research questions

The problem description and research objective translate to the following main research question:

Main research question

How can private equity investment in medical specialist care be a durable success?

With durable success meaning especially, but not exclusively, that the investment setup provides high return relative to risk for the investor, is aligned with public interests and with the interests of key actors.

The problem has been split in four subparts, that are dealt with mainly in the sequence shown:

SQ 1: What are the drivers behind return and risk for private equity investment in medical specialist care?

SQ 2: Which factors in medical specialist care determine durable return and risk for investment in medical specialist care?

Four sub questions

SQ 3: How do current investments in medical specialist care work and why have other investment options not been exploited?

SQ 4: How can strategies, in terms of asset choice, added value concept, ownership and governance structure, lead to success for investors?

Answering these questions enables answering the main research question, as all the important components of the main research questions are dealt with. The first question is dealt with in chapter three, were private equity investment is the subject of study and the most important aspects in relation to the perspective of investing in medical specialist care are highlighted. The second question is dealt with in chapter four, were medical specialist care in the Netherlands is evaluated as far as relevant to an investor. In chapter five, the interviews and case studies are discussed, providing an answer to the third question.

Chapter six describes the main obstacles for success as derived from the interviews and case studies and chapter seven strategies for overcoming them, providing an answer to the fourth question. In chapter eight the answers are aggregated to formulate an answer to the main research question.

1.2.2 Methods and deliverables

Desk research

Interviewing

Case studies

Three methods are used for answering these questions. Desk research/ literature review, interviewing and case studies. First a theoretical framework is created with desk research, providing focus points for the rest of the thesis. Secondly, desk research is used for identifying what determines return and risk of private equity investment in medical specialist care and for initial charting of the medical specialist care landscape. These descriptions and frameworks serve as input for the focus of the semi-structured exploratory interviews and the case studies. The exact interview setup and choice of case studies is elaborated on in chapter five. Descriptions, theory and gathered data are then used to evaluate medical care investment as it currently is and can be. Apart from answering the main question in the conclusion, the final deliverable is a number of investment strategies. These consist of added value concept and asset type choice, specific asset and specialism selection, governance configuration and information systems.

1.2.3 Thesis structure

The relationship between the parts of this thesis, are shown in below figure 1.5.

Relation of thesis parts

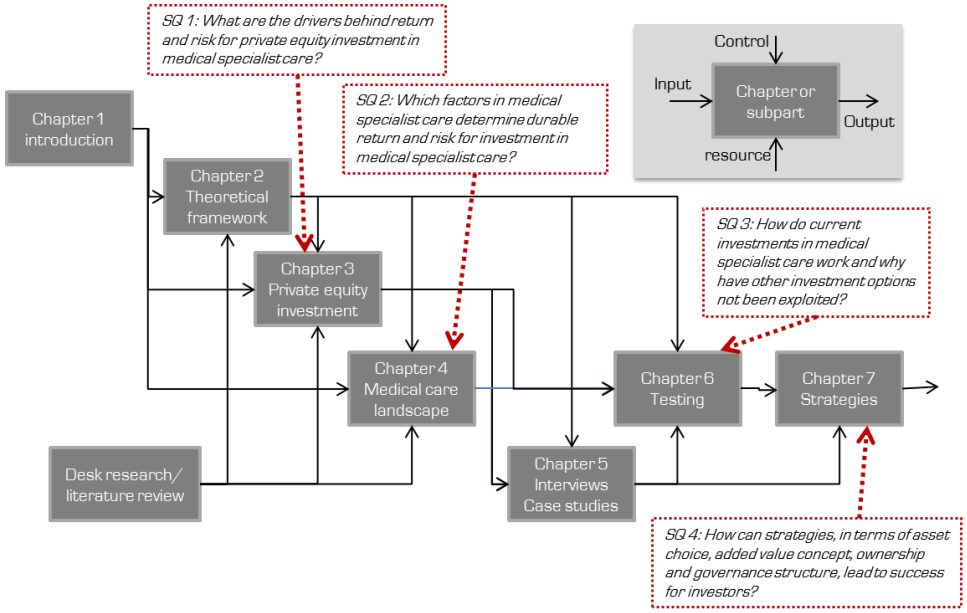


Figure 1-5: Thesis structure

Iteration

The apparent linearity of this structure is misleading. During the research, multiple iterations per part occurred. New empirical results led to new theoretical focus, which led to new focus for research of private equity and medical care and in turn to new empirical results. Therefore this thesis only presents the core of the research performed and leaves out those parts that seemed interesting at the time, but were scoped out as secondary issues in later stages.

Summary and next steps

This chapter explained the context and inducement of the thesis. Research questions, methods and deliverables have been presented which will be dealt with in the next chapters. The next step is the theoretical framework, which will provide the perspective from which the subjects of the other chapters have been viewed.

2 Theoretical framework

Before looking closer at what private equity investment and Dutch medical specialist care entails, this chapter presents a theoretical framework for analysis. These theories are the backbone of the choice and content of the desk research, case studies, interviews and analysis of the results.

2.1 An agency approach to hospital governance

Medical specialists are the operational core of medical specialist care, with a uniquely autonomous position, making it difficult for management to govern them (2.1.1). Governance in relation to this operational core is of particular interest and can be strengthened by using agency theory and reducing agency costs (2.1.2).

2.1.1 The specialist-management divide

Hospitals are professional bureaucracies

Organizational theory by (Mintzberg 1983) describes a hospital as a professional bureaucracy and explains the characteristics of the organization, with the specialists as dominant operational core. The operational core in such an organization works based on a highly specialized set of skills. These skills are managed by the profession, reducing the hierarchical nature of power. Management cannot control the operational core of specialists, who have all information, are mostly self-regulating and whose work is difficult to understand by other parts of the organization. The specialists continuously strive to retain collective freedom of action.

Relationship specialists - management

The relationship between the dominant medical specialists and (middle and strategic) management will determine to what degree strategy as supported by an investor will translate to the operational core. Unfortunately, managers and professional are often posed against each other, were management is pictured as a burden on the specialists aiming at caring for their patients (Noordegraaf 2008). The relation between hospital management and specialists is often characterized by distrust (Visser 2011). The problem is that while management has hierarchical power over the specialists, the specialists have all information concerning operations. There is substantial informational asymmetry between the specialists and hospital management (Kerste and Kok 2010). Interests of the entire hospital and subparts, consisting of groups of medical specialists, are often not aligned (Ludwig, Merode et al. 2008). This informational asymmetry and lacking alignment of goals between subparts of the hospital and between the specialists and higher management provides the angle for an agency approach.

2.1.2 Reducing agency costs

Principal agent theory

Principal-agent theory deals with situations were a principal contracts an agent to perform work (i.e. Eisenhardt 1989). In this case the medical specialists are the agent and a subpart of the medical care institution. Management is the principal, representing the entire medical care institution. In a principal-agent relation with considerable information asymmetry, an agent that does not share the interests and risk attitude of the principal, can be expected to maximize his own utility, thereby not maximizing the utility of the principal. The agent can profit by putting in less effort than desirable for the principal (moral hazard) or can misrepresent ability (adverse selection).

The principal faces the problem of how to make sure that the agent maximizes his utility, while the agent faces the problem of how to make sure that the principal feels that his interests are well managed.

Jensen and Meckling (1976) operationalize principal-agent theory for business economics by framing the concept of agency costs. Agency costs are the costs incurred by the principal and the agent to overcome the principal agent problem and fit in three categories:

Agency costs

1. **Monitoring costs**, incurred by the principle to align the agents' interests through incentives and keeping track of, the agents' behaviour and/or output by reducing information asymmetry
2. **Bonding costs**, incurred by the agent to guarantee the principal that actions are aligned with the interests of the principal or compensate the principal in cases where the agent does not act on his behalf
3. **Residual loss,** which is the loss incurred because even after monitoring and bonding has taken place, interest divergence and information asymmetry prevent utility maximization

Agency costs are therefore the total of monitoring and bonding costs and residual loss, which need to be minimized. Note that 'costs' are also of non-pecuniary nature and more importantly, costs can be actual costs and opportunity costs. A missed opportunity because of interest divergence or information asymmetry is also 'costly'.

The goal for any organization with separate ownership and control, thus with a principal-agent situation, therefore becomes to find the best monitoring and bonding mechanisms: those that reduce residual loss the most, while incurring the least monitoring and bonding costs. Ways for minimizing agency costs focus on the sources information asymmetry and interest misalignment, through monitoring and bonding mechanisms and with the help of market mechanisms (i.e. Jensen and Meckling 1976; Eisenhardt 1989; Chong and Eggleton 2007).

Mechanisms for minimizing residual loss

- Monitoring mechanisms
  - Information systems
  - Outcome based and behavioural contracts
  - Board of directors
  - Segregation of decision management and control
- Bonding mechanisms
  - Compensation package
  - Promotions or other recognition
- Market mechanisms
  - Managerial labour market
  - Capital market

Effects of above mechanisms will differ per situation based on the levels and specifics of information asymmetry and interest misalignment. Market mechanisms help minimizing agency costs because they provide market discipline.

Back to medical specialist care

How does this apply to medical specialist care? As discussed in 2.1.1. the medical specialists are dominant as operational core and difficult to control, making monitoring mechanisms aimed at control costly, because of effort and because of probable animosity when control comes with impairment of the collective freedom of the profession. Because of the difficult relationship between management and specialists, agency costs of methods aimed at reducing information asymmetry will be costly.

Unless somehow beneficial to the specialists and thus supported. Methods aimed at aligning interests may be less costly, but a growing divergence between traditional focus on quality and pressure on cost efficiency may change this. Finally it must be noted that agency theory assumes opportunistic actors that only aim at maximizing their own profit. In general, but especially in healthcare, actors also feel morally obliged to pursue the goals set out. Disregarding the disutility an agent receives morally because of failing to deliver or misrepresenting ability, leads to a suboptimal agency cost approach and to encouragement of selfish agent behaviour (Stevens and Thevaranjan 2010). To conclude, the agency approach directly addresses the governance complexity as blocker for successful private equity investment in Dutch medical specialist care and is therefore used as a guideline in this thesis.

2.2 Public value trade-offs shape the medical landscape

As healthcare is seen as an important right for Dutch citizens, medical specialist care is a key public value area in the Netherlands (2.2.1). Several trade-offs between public values and between public and private interests are relevant for medical care investment (2.2.2).

2.2.1 Public value and its meaning for Dutch medical specialist care

Public value is the sum of public interests, as shareholder value represents the private interests in a company. The concept as such, framed by (Moore 1995), intents to create a corporate awareness around delivery of public service. Public interests, values or goals have a commonality distinct from private interests. The importance of each public value, such as affordability of public transport or reliability of energy supply, will differ per country (Bruijn and Dicke 2006). Sources are generally in agreement about what public value for Dutch medical specialist care entails on a national strategic level (i.e. Klink and Bussemaker 2007; Kerste and Kok 2010; VVD-CDA 2010; Bos, Koevoets et al. 2011; RVZ 2011):

Public values for Dutch healthcare

1. **Quality**, which is already good compared to other countries, but which still leaves much room for improvement, making the value a target for policy
2. **Accessibility**, meaning both proximity and access for all (solidarity), for which the current level is seen as appropriate and therefore this value is in need of safeguarding
3. **Affordability**, for this value the pressure to increase is ever growing, making the value a target for policy

This is in line with the challenge mentioned in chapter one: to deliver higher quality care in light of relatively diminishing means. The three values often contradict. Increased quality and accessibility will often come with additional costs and quality will often benefit from concentration and specialization, while accessibility relies on proximity. Not only do the public values contradict with each other, they also may conflict with private interests.

2.2.2 Trade-offs

A trade-off between conflicting (public) interests will (re)occur at every change in circumstances. Together with shifting public policy and preferences, this makes public value a very dynamic concept. Apart from trade-off result differences because of time, there are also important differences because of the viewed scale. Steen, Dicke et al. (2010) emphasize that public value trade-offs must be made on a system rather than a local level. However, Steenhuisen (2009) explains that the real trade-offs between public values are often made by individuals in and around the operational core. The public value decisions thus more or less emerge in practice rather than being determined by the (perhaps existing) careful strategic planning at the top of an organization. This realisation then leads to a feeling of loss of control, inciting management to increase control mechanisms,

Dynamic and local versus system

which can be expected to be ineffective again. As mentioned in 2.1.1, interests within medical specialist care often diverge, even within a single institution. Public value trade-off results will differ depending on whether the actors view the trade-off from a system, institution or institution subpart perspective. There is a need for optimality on a system level, however in reality decisions often emerge locally.

Private equity as a threat

Apart from the trade-offs between public values, there is also the balance between public and private value. This deserves attention in the case of private equity investment in medical specialist care. Authors such as Lemstra and Groenewegen (2010), Melody (2007) (2008), emphasize the neglect of public values when private equity invests in utility sectors. They exhibit cases were the investor realizes private value through disinvestment at the cost of public value. In this thesis the premise regarding public versus private value is that a private investor must act in concordance with public value in general in order to make the investment a long term success. Because of the importance of healthcare in the Dutch public eye, other perspectives seem unsustainable, whether this is true in reality depends primarily on regulation (reflected on in 8.3). The public value perspective deals with the second main blocker for successful investment, besides complex governance: public value driven uncertainty.

2.3 Research focus based on theory

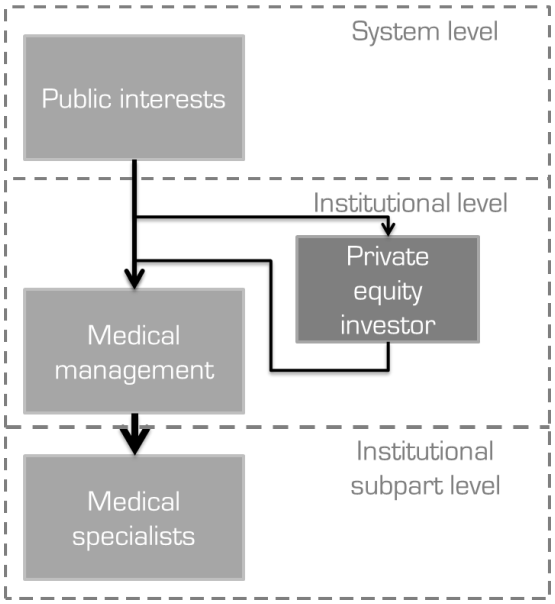


Figure 2-1: Basic agency cost reduction model

Combining the agency approach with the public value considerations surrounding private equity investment in medical specialist care, leads to the model as depicted in figure 2.1. The private equity investor becomes the principal of medical management as (part) owner of the institution. Agency costs, due to information asymmetry and interest divergence, must be reduced: between the medical specialists as institutional subpart and management of the institution; between medical management and the investor; and between the institution and the public interests on a system level.

Summary and next steps

Agency theory and public value considerations provide focus points for the rest of the thesis: the reduction of interest divergence and information asymmetry within and across three aggregation levels. By minimizing agency costs in this way, the complexity of governance and public value driven uncertainty are dealt with. The presented model will be expanded with more specifics on private equity and medical care in the next chapters.

3 Private equity investment

The meaning of 'successful private equity investment in medical care', from the viewpoint of an investor, is the subject of this chapter. This means looking at the institutional level and at what the investor wants and provides for the medical care institution he invests in; repeatedly moving from private equity investment in general towards those aspects most relevant when looking at medical care. The chapter describes private equity investment types and then four basic steps, based on documents by (Demaria 2010), (KPMG 2008), Phalippou and Zollo (2005), (Wright and Robbie 1998), (Gottschalg 2008) and (EVCA 2007). Success factors for private equity investment provide focus points for reducing agency costs and the agency cost reduction model from chapter two is expanded.

3.1 Types of private equity investment

Definition

According to (Demaria 2010), private equity is "a negotiated investment in (quasi) equity with a fixed term, implying specific risks, with high expected returns, undertaken on behalf of qualified investors". This definition implies both the object of investment as the way of investing. The object is (quasi)-equity, in this case of medical specialist care institutions. As the way of investing, the typical approach of a private equity house is taken in this thesis, which is as described in the rest of this chapter. This approach can be divided into five types. These types are defined by the lifecycle phase of the target companies. Most private equity houses will focus on a certain type for each fund or even for all funds, because of the learning through specialization benefits. Figure 3.1 shows the various life cycle stages, with an example of what this would mean when looking at the medical care landscape and the added value concept associated with the investment type.

5 types of investment with an added value concept

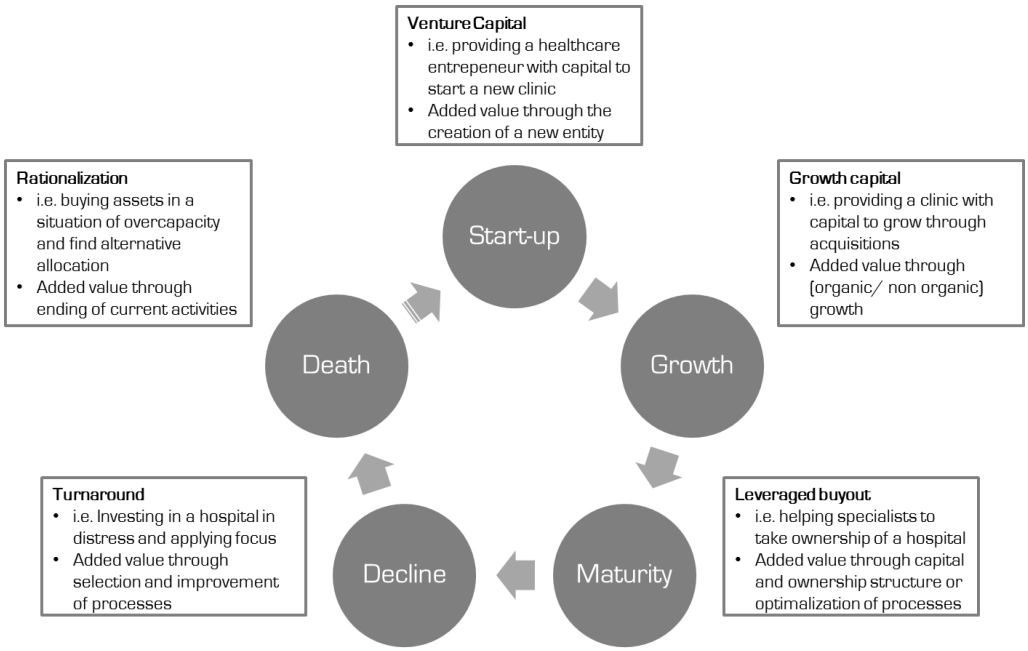


Figure 3-1: Lifecycle phases with private equity investment type, medical investment example and added value concept

Each type has different characteristics in terms of investor involvement, stake, leverage, added value strategy and alignment with public value. The boundaries between types are not strict, as combinations are possible: for instance applying a growth strategy after a turnaround or growing a firm after a management buyout. In literature, mentioned types are sometimes split or grouped. For instance calling capital for both start-ups and growth strategies venture capital or terming turnaround and rationalization strategies as rationalization. In this thesis the distinctions as made are relevant (more on this in chapter six). The most important consequence of the investment types considering the agency approach as introduced is its effect on the relationship investor – management. A well-managed organization in need of growth equity may require less investor involvement and control than a start-up or organization in distress. The private equity investment type and added value concept associated will determine the angle of the investment setup and its main consequences.

3.2 The investment process

A typical private equity fund lifetime is divided into four phases by Demaria (2010). These phases apply to each private equity investment type and are here termed: fundraising and formalization (3.2.1), Investment (3.2.2), Portfolio management: adding value (3.2.3) and Realizing value (3.2.4).

3.2.1 Fundraising and formalization

Formal structure

The first step for a private equity house is to start fundraising. Figure 3.2 shows the typical structure for and around a private equity fund. The lines and arrows show the most important relationships between these players. The thickness of arrows is a non-exact indication of the volume of cash transferred. Private equity houses may have a parent company. This can mean that the parent is always the only limited partner involved (captive) or that the parent contributes a part of the investment (semi-captive). A private equity house with a parent company will usually show different behaviour than a house working stand alone.

The private equity house consists of multiple legal entities. This division is mainly for liability and tax reasons and will differ per country and setup. The fund manager directs the fund and the companies the fund has invested in. Depending on the conditions of the fund and of the funds participation in a portfolio company, this will entail a certain (high) level of control and contribution. The fund comes into existence through the signing of a contract by the fund manager, general partner, carried interest partners and limited partners. The general partner is legally responsible for the fund's operations. The limited partners are the main (indirect) equity investors. The portfolio companies can be partly or completely owned by one or several funds. A typical private equity house will have a stake as general partner in multiple funds, which will have a stake in multiple companies.

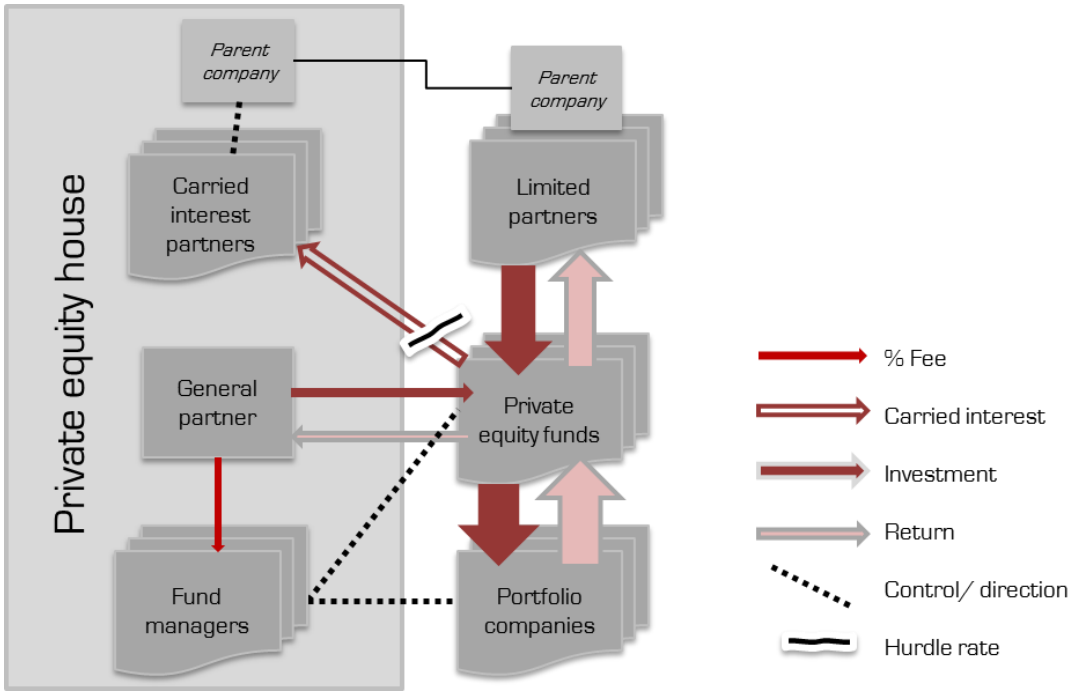


Figure 3-2: formal structure of private equity investment

Conditions

Conditions of the partnership will differ in terms of investment goals, fees, rates and other specifics, but the cash flows mainly as follows. The limited partners and the general partner will commit to a certain amount, to be ready for investment when necessary. After evaluating target companies, leveraging funds and acquiring portfolio companies, these will generate cash, perhaps through operations and mainly through sale of the asset. A large part of this cash flow will be transferred to the fund. Usually the partnership agreement states that first the limited partners are remunerated for their investment plus a hurdle rate profit. Then when the hurdle profit is met, the carried interest partners will start sharing in income. The carried interest partner construction is a tax efficient way to reward the private equity house exponentially for good performance, which should encourage superb fund management. After the hurdle rate has been met their profit is usually allowed to catch up to about 20% of profits. The general partner receives a priority return.

Limited partners determine the goals

The limited partners are the ones putting up most of the capital and therefore bearing most of the risk. Limited partners are 'qualified investors', who often contribute knowledge and network to the investment objects besides equity. The interests and commitment of the limited partners will determine the investment strategy and have great influence on the successfulness of the fund. The agency problem between the limited partners and private equity house (as general partner and fund manager) is dealt with through the described fund structures' incentives; mainly in the form of outcome based contracting. Another important aspect besides the interests, control and contribution of the limited partners is that funds usually have a fixed term. The need to disinvest and repay the limited partners after about five to seven years leads to high pressure to sell the asset when nearing the end of the term. The normal private equity term is quite short term relative to normal hospital strategic planning. The situation therefore can be summarized as a highly incentivized private equity house, forced to realize high return in a short exit period.

3.2.2 Investment

In this phase the investment manager(s) of the house look(s) for suitable targets for ownership, to create (in case of venture type) or for participation. Although return and risk will always be the ultimate targets, operational criteria will differ. These criteria stem from the aim of the fund, as established in contract with the limited partners. The participation in a target company can come in the form of equity, quasi-equity or combinations of both. Quasi-equity or mezzanine financing has many variations and fits between debt and equity on a risk versus return and control scale (figure 3.3). This can for instance mean preferred equity, which is repaid after debt and before normal equity in case of bankruptcy or debt with specific control or interest related to performance. In equity and quasi-equity participation, the private equity house will have negotiated specific terms for its investment. When the investment moves too much towards debt, the model of value realization through selling of the assets becomes difficult (more on value realization in 3.2.4.). In addition to the investment, private equity houses typically contract additional debt to leverage their investment. Especially for the Leveraged buyout investment type, the added value depends on leverage. This leverage is provided by debt providers, primarily banks, granting them a relevant position.

Ways to participate

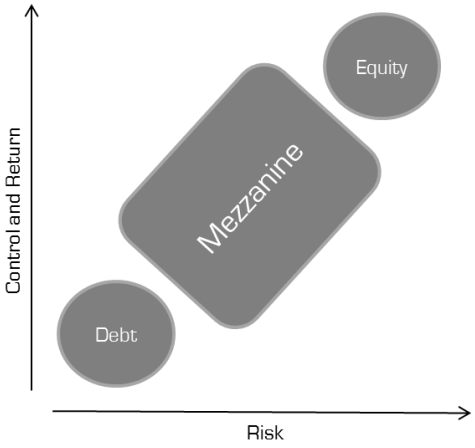


Figure 3-3: Asset types most relevant for private equity

Assets to invest in will be selected based on a certain risk exposure the investor aims at. An investor creates a considerate portfolio, with certain focus, country risk exposure, market risk exposure, regulatory risk exposure and so on. Private equity houses will have high focus for learning, limited partners do not focus and want to balance and spread risk exposure.

Shaping a portfolio

The sources indicate that the investment process is primarily a matter of trust and mutual interest. This is the phase were the relationship between the equity investor, management and indirectly the medical specialists is established. The principal agent relationship between investor and management is established in this phase and therefore agency costs are determined for a large part in the investment procedure. Selection of an asset with management and specialists who are cooperative will therefore be of great importance, along with a governance configuration that aligns the interests of management, specialists and investor.

A game of trust

3.2.3 Portfolio management: adding value

This is where the private equity house, enabled by the negotiated investment, adds value to the asset. Successful private equity investment depends on the ability to add value. The fund manager actively pursues a strategy for adding value, based on his own and limited partner knowledge and network. Skewed performance shows that the successful funds stay successful, indicating that it is a game of management skills. Generic drivers of this performance are hard to find. It seems that several approaches may work, but that a private equity house must perfect the approach through learning by doing. The strategy for adding value determines the aims of the investment. Here the strategy chosen during the fundraising stage for the fund and during investment for the specific asset is executed. Private equity investment success is based on the potential for added value and whether the private equity house can realize this potential.

Execution based on strategy and investor success

3.2.4 Realizing value

Exit importance

The literature on private equity all show that dividends are not the main way to realize return on an investment. Instead almost all value is realized with the exit. This value realization through the exit increases the viability of hospital investment: the goal of the investor is to increase the long-term profitability, by increasing efficiency and perhaps sales, in order to sell the entity at a high price. Besides this focus on exit, the second reason for low or no dividends is the high leverage: debt reduction and interest payments will take a large part of the cash flow, as banks will enforce their claims. In general the total scheme for return will therefore be buying at price x, applying leverage, adding value (is increasing Nett cash flow), (partly) paying off debt and finally selling at a higher price (because of added value), while a larger part of that price goes to the shareholders since leverage has been reduced (through paying off debt).

Difficult to excel

Private equity has relatively high asset illiquidity, meaning that purchase and sale of the equity cannot be done overnight. This is contrary to publicly traded assets, for which exchanges provide real time markets. However as mentioned in 3.2.1, the contracts with limited partners include an exit term, putting pressure on the exit. Selling illiquid assets under time pressure for high value is key for successful private equity investment.

Summary and next steps

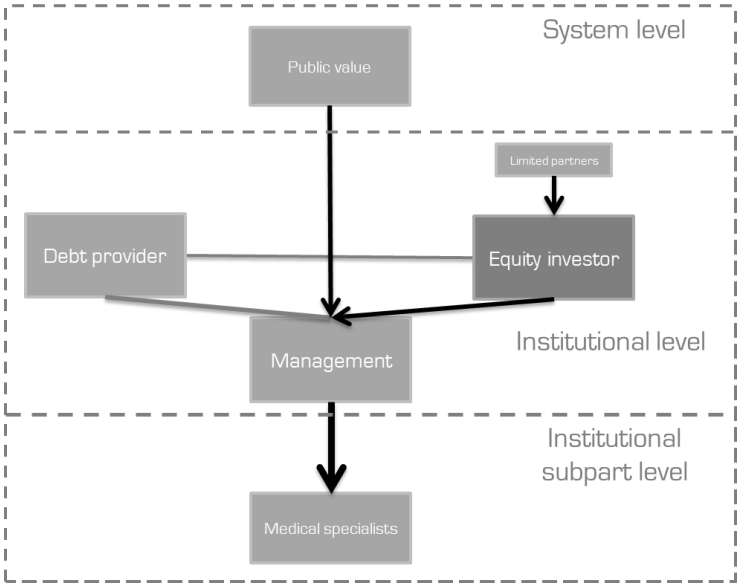


Figure 3-4: Agency cost reduction model, added after looking at private equity investment

Based on the description of private equity investment, the model for reducing agency costs can be expanded on an institutional level. Here the equity investor with limited partners and the debt provider (providing leverage) translate their interests towards the specialists, through management (figure 3.4). Certain specifics of private equity investment provide focus points for the reduction of agency costs: the fixed term in contract, high outcome based contracting within the fund, importance of building mutual trust, selecting the asset, participation and leverage used and the value realization through the exit. These subjects have been subject to investigation in the interviews and the case studies, which will be elaborated on in chapters five, six and seven.

4 The medical specialist care landscape

After looking at private equity investment as the process used by the investor, the next step is to look at the landscape in which the (potential) objects of investment operate. This leads to more focus points for reducing agency costs on all three levels, which will be tested in chapters' five to seven.

4.1 A picture of the landscape

The medical care landscape is made up out of lines, aid categories, specialisms, financing segments and the activities take place in medical care institutions (table 4.1). The lines, aid categories (4.1.1) and funding segments (4.1.2) mentioned in the table are elaborated on in this paragraph. These segments and funding mechanisms move the actors in their interactions (4.1.3). In 4.2 the institutions in which care is provided are examined. Finally the main developments in Dutch medical specialist care are presented (4.3).

Table 4-1: Segmentation of the medical care landscape

Segments

Line	Aid category	Funding segment	Institutions
First line	General practitioners	A	General practitioners practice
	Other directly accessible	A	Dermatologists, etc. practice
	First aid, emergency services	A	Hospitals
Second line	Polyclinic care	Mostly B	Hospitals (and ZBC's)
	Polyclinic care - chirurgical	Mostly A	Hospitals (and ZBC's)
Third line	WBMV	A	Top clinical/academic hospitals
	Intensive care units	A	Top clinical/academic hospitals
	Other top clinical	A	Top clinical/academic hospitals
	Supporting services	Mostly A	Top clinical/academic hospitals

4.1.1 Volume, complexity and value of lines and aid categories

Patient care process

The division in lines is based on the trajectory a patient goes through. The first line is all care directly accessible to patients; the second line is accessible for patients who have been referred by general practitioners or specialists from the first line (or in some cases second or third); finally the third line is accessible to second line specialists (and partly for first line), for referral and other support.

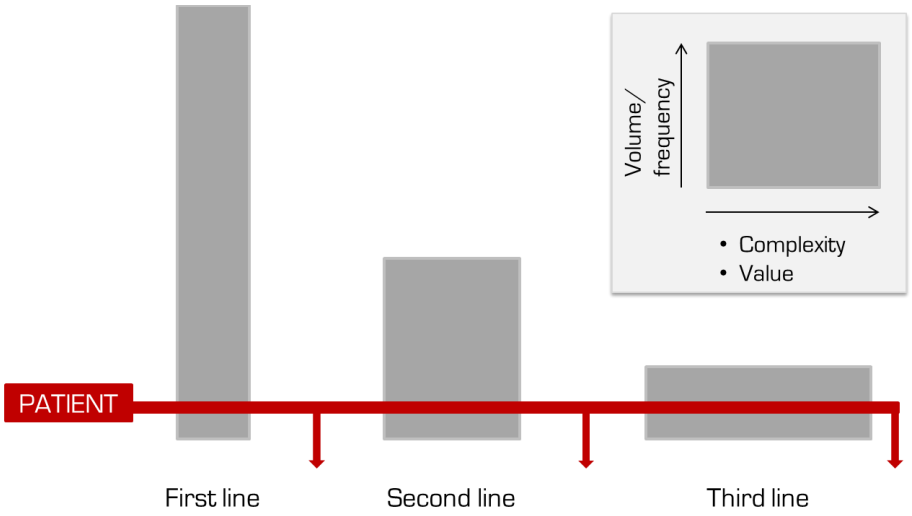


Figure 4-1: Three lines with volume, complexity, intensity and value of interactions (non-exact indication)

Volume, complexity and value

In general, with each line the volume of patient interactions decreases, while the complexity, intensity and value of these interactions increase. This is complexity in a broad sense, as in organizational requirements, level of training needed, predictability of outcomes etc. Value means both the added value because of the operation as well as the costs, both per interaction as in terms of investment/ fixed costs. From the first line starting point, for instance a general practitioner, company physician or ambulance service, the patient may be directed towards a specialist in the second line. This means a referral from a specialist with general knowledge to a specialist in a certain specialism, for instance neurology or cardiology. Only a minority of patients visiting a general practitioner will need such further examination, be it from a more specialized specialist and/or surgeon. If the case is of even higher complexity or if supporting services such as lab diagnostics are required, the patient is referred to the third line. Apart from supporting services, the third line is also called top clinical (Dutch for the top of referrals). An important part of this top clinical care is guarded by a license system: WBMV (Wet Bijzondere Medische Verrichtingen, Dutch for Special medical procedures act). Care providers are not allowed to perform such operations without the license, in this way asserting that quality standards for these most complex dealings are met. Intensive care units provide monitoring for patients in critical conditions and available personnel in case of incidents. Medical value relies on providing the entire process to a patient, providing quality first line care and then referring to a mediocre second line specialist harms the service delivery. Higher line facilities are more expensive, so treating a simple affliction in an academic hospital will be more costly than doing so in the designated second line focus factory. These three lines and aid categories present the playing field for an investor in medical specialist care.

4.1.2 Healthcare funding system

Looking at funding of Dutch healthcare, the sources, destinations and ways from source to destination are relevant, as described by (Steen, Dicke et al. 2010) (figure 4.2 and 4.3).

Funding source and path

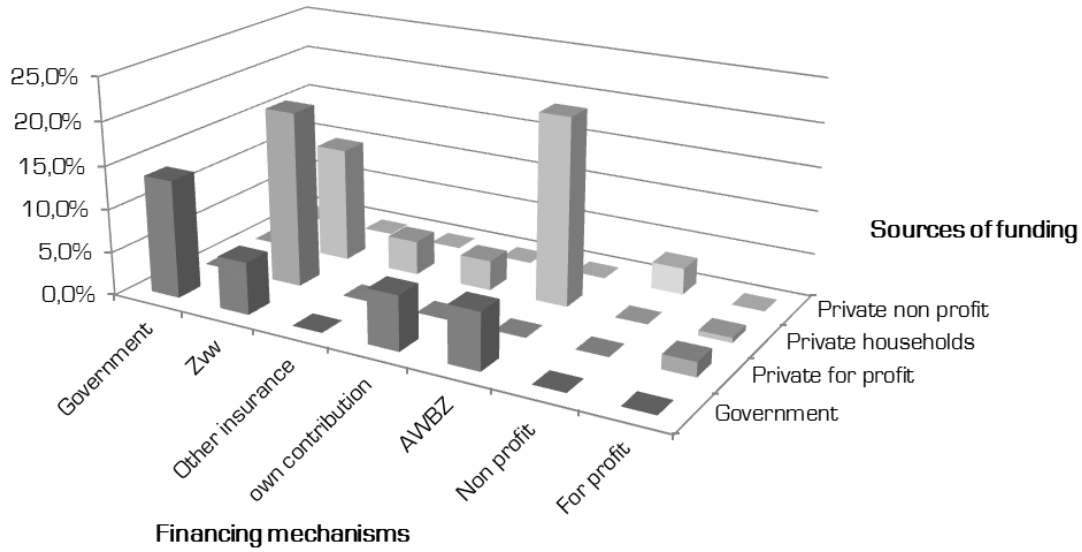


Figure 4-2: Funding sources and mechanisms 2008 (Statline 2011)

Sources can be public tax money from the government or private, from households or from organizations, with or without for profit motives. Private for profit sources are mainly companies contributing to the Zvw insurance system for their employees. An example of a private non-profit source is the national cancer foundation. From these sources, funding can reach its destination in multiple ways. For instance government contributes to the Zvw insurance funds but also directly, through state aid not directly connected to production (government source, government mechanism) and through production related contributions (government source, own contribution mechanism). The AWBZ funding mechanism is outside of scope (1.1.3). Under the Zvw insurance law, people are still also allowed to attract other private insurance (other insurance mechanism).

Funding destinations

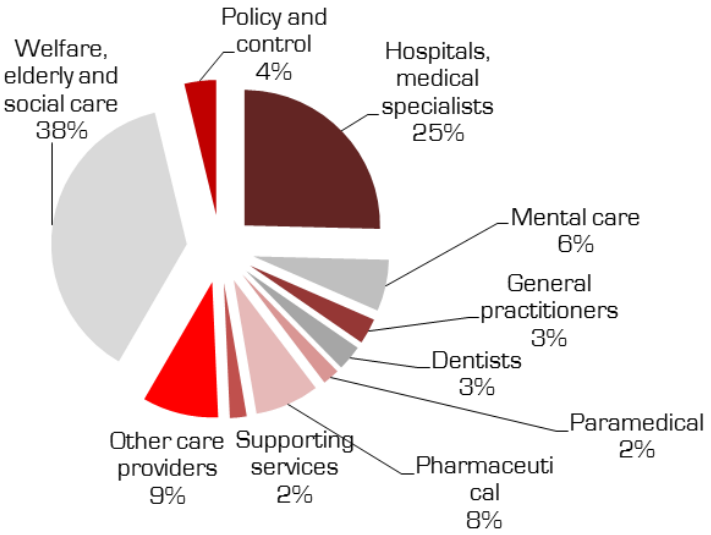


Figure 4-3: Funding destinations 2008 (Statline 2011)

Figure 4.3 shows the destinations of funding. Within scope are the hospitals, general practitioners and supporting services destinations and part of pharmaceutical, paramedical, other care and policy and

control as far as it is related to Zvw (and not AWZB) destinations[4]. As individual care providers want to be destination of funding, they will adapt their behaviour to fit the intensions of the source and mechanism. Therefore the insurance companies controlling the main funding source of private (household and for profit) insurance contributions, have the potential to direct the hospitals and medical specialists in their behaviour.

Medical specialist care financing is in a transition from budgeting (until 2005) towards a system which is based for a larger part on a market approach. Hospitals claim funding from insurance companies through the DBC system (DBC-Onderhoud 2011), which will be adapted to DOT from 2012. These methods combine series of cure acts into products. These products are divided in two main segments: products for which price is set by the Dutch Healthcare Authority (NZA) (A category) and products for which pricing can be left to negotiation between hospitals and insurance companies (B category). The B category is to grow to 70% from 2012 (currently around 34%) to increase efficiency in healthcare (NZA 2011). Cash flow for an investment object in the A category will therefore depend on the tariffs that are set for the whole system, while B category investments require local arrangements with the relevant insurance company to ensure income. The division between A en B segment is based on the complexity of operations. High volume (multiple supplier), predictable and schedulable care is seen as fit for market mechanisms, low volume high complexity care that needs to be available, but with low utilization is seen as unfit. In 4.2.4 the effects of the funding system on the individual institution will be discussed.

Funding system key for transition

4.1.3 Actors and interactions

The actions of a number of actors dominate the medical care landscape (figure 4.4). The ministry of healthcare sets the rules for the landscape through legislation. Regulatory bodies such as the NMA (Nederlandse Mededingings Authoriteit, meaning 'Dutch antitrust authority') and NZA for market regulation and the IGZ (Inspectie GezondheidsZorg, meaning 'healthcare inspection') for medical quality are means to shape the landscape into a desirable state. There are three designated markets (Winter 2011). First a health insurance market, were insurance companies sell insurance to patients. Secondly, on the care procurement market, insurance companies then buy care service provision ability from hospital management. Thirdly, on the care consumers market, patients get the actual care from medical specialists. The three markets are dominated by the funding flows as described in 4.1.2. The insurance companies spend Zvw money on the care procurement market, which they have attained partly from the ministry, but mostly from patients and their employers through the health insurance market. The patients choose with their feet on the care consumers market and pay their (small) own contribution to the selected medical institution, before their insurance covers the rest of their medical bill. Apart from funding, medical management also attracts capital from debt providers and sometimes from equity investors, this will be elaborated on in 4.2.4.

Various actors on three markets

[4] No source was found that could allow for reliable one-on-one linking of sources, mechanisms and destinations. Therefore all healthcare sources, mechanisms and destinations are presented, including those out of scope.

The actor field

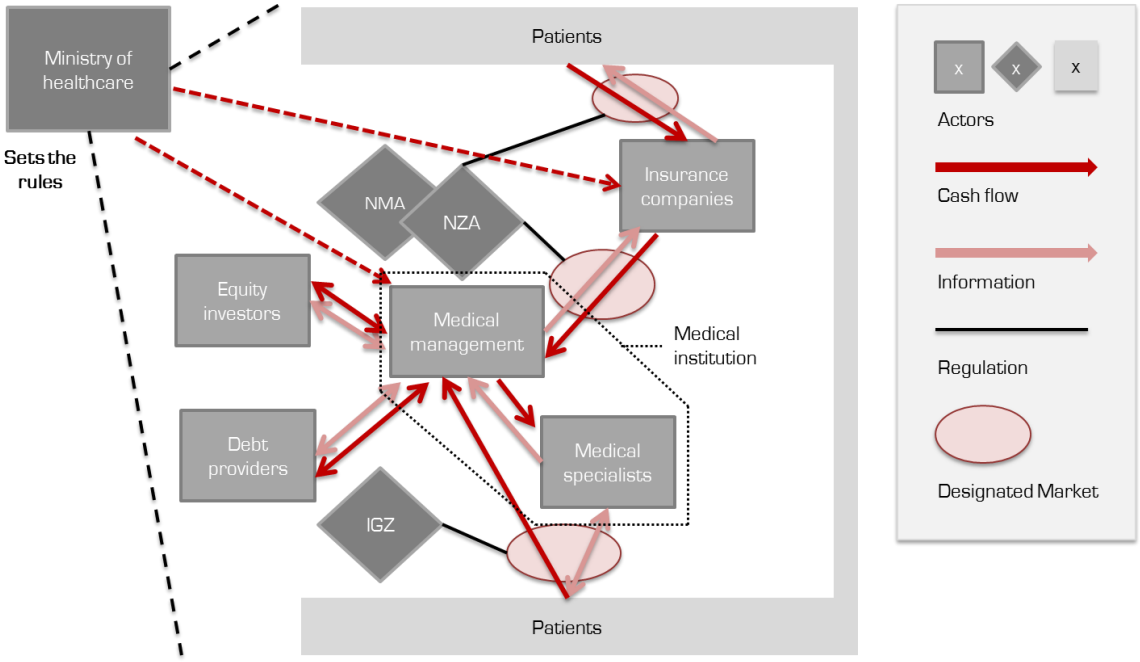


Figure 4-4: Actors and interactions in the medical landscape

Insurers in the lead

The funding system and legislation provides insurance companies with a dominant role. These companies are to be the directors of the landscape, steering the whole towards higher public value, together with the NZA. Because of the information asymmetry existing in the medical world however, their real control is often minimal (Kerste and Kok 2010). Because insurance companies are not allowed to select their insured, they are rewarded for insuring patients with a higher care consumption through ex-post equalization. This limits their exposure to risk, reducing incentive for selective procurement. However ex-post equalization is being gradually removed and funding growth is capped by government (at 2,5% per region). Together with other pressures, the insurance companies will in this way have higher risk exposure and commitment to perform their intended role (i.e. Vektis 2011).

As the aim of this thesis is to find ways to reduce agency costs between various actors, the diversity of the actor field presents a challenge. The various players all have their own interests, which often contradict. Relative information asymmetry also differs per set of players. The relations and interdependencies between the various actors need to be evaluated and understood by an investor in medical specialist care.

4.2 Organization of the institutions

The actual provision of care as divided in segments and shaped by the funding and actors described, is organized in the medical care institutions. With medical care institutions is referred to care providers in this thesis. These institutions can be differentiated in types (4.2.1), have various organizational structures (4.2.2), ownership (4.2.3) and financial dynamics (4.2.4).

4.2.1 Types of institutions

Dutch medical specialist care is provided in academic, categorical and general hospitals and ZBC's. As figure 4.5 shows, the number of ZBC's is strongly growing and there are now more of these clinics than there are hospitals. However the share in total market turnover of ZBC's remains very small at 7,5% of B segment turnover and 1,5% of A segment turnover. This leads to the fact that Dutch medical specialist care is mostly provided in hospitals.

Institutions in the Netherlands

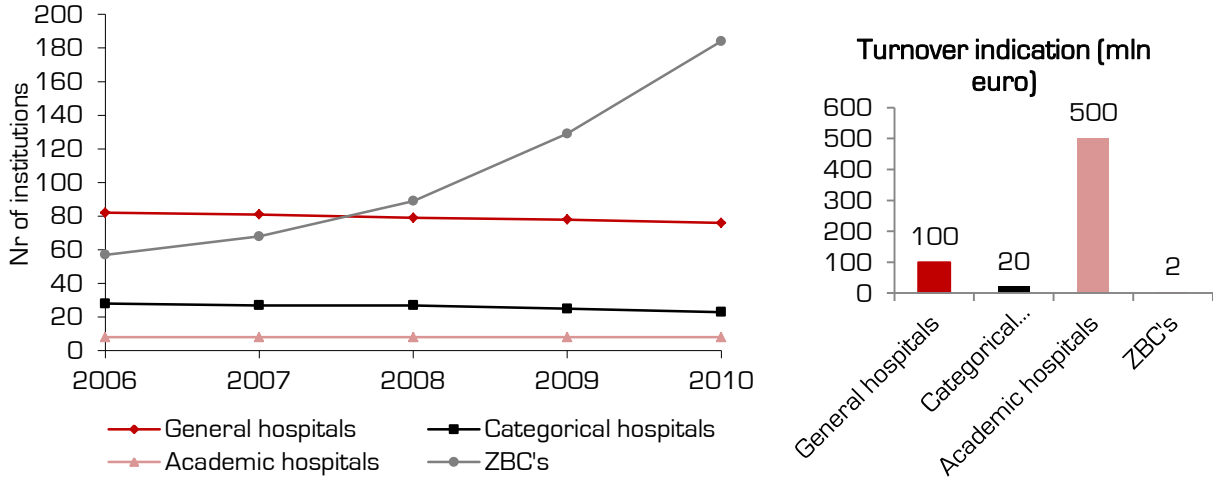


Figure 4-5: Medical care institutions in the Netherlands and average turnover (Boer&Croon 2011; Statline 2012)

WTZi licensing

When is an organization a medical care institution in the sense that funding can be drawn from the Zvw system? This is regulated through the WTZi (Wet Toelating Zorginstellingen, or 'Care institution allowance law'), which stipulates under which conditions an organization can draw funding from the Zvw system. Apart from care from institutions with a WTZi license, there are also some private clinics in the Netherlands providing uninsured care and some clinics providing both insured and uninsured care. Because of the scope of this thesis, the institutions with a WTZi license are of interest. Acquiring a WTZi license is very costly, as the requirements are strict.

4.2.2 Organizational structure of current institutions

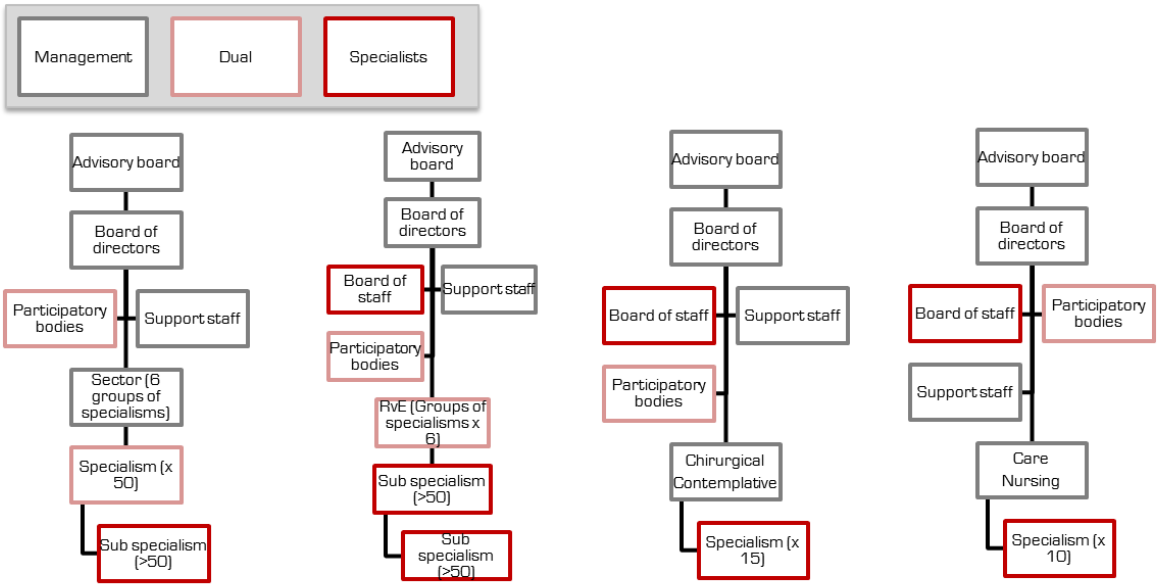
The organizational structure of hospitals knows great variation. The organizational structure determines how the governance from investor to management to specialists is formally structured and is therefore of great influence on the agency costs in the organization. Wulff (1996) describes basic design parameters for hospital organizational structure:

Hospital design parameters

1. Definition of care units, based on
    a. Professional groups (i.e. specialists, nurses)
    b. Duration of stay (i.e. ambulant care, clinical multiple day care)
    c. Chirurgical and other care
    d. Medical specialisms (i.e. rheumatology, geriatrics, neurology)
    e. Groups of related medical specialisms (i.e. thorax, mother and child)
    f. Geography
2. Management structure commanding the care units
    a. Single, dual, triple
    b. Level of authority
3. Specialist involvement in management
    a. Level: operational, care unit, strategic
    b. Formal in line or consulting counsels

Three example organizational structures are depicted in figure 4.6 to exemplify how these design variables translate to practice.

Examples of organizational structures



UMCG	Isala Klinieken	Amstelland	Van Weel-Bethesda
Academic hospital	Top clinical hospital	Local hospital	Local hospital
1339 beds (largest)	1100 beds	255 beds	140 beds

Figure 4-6: Organizational structures of four hospitals (Amstelland 2011; Isala 2011; UMCG 2011; Weel-Bethesda 2011)

Great variety of configurations possible

Dual management means co-leadership of a ' specialist' and a ' manager', which is not a strict division and is interpreted in this thesis as one of the options to involve (ex) specialists formally in the management line. The care units of the UMCG are first divided in groups of related medical specialisms' (sectors), than in specialisms and then in sub specialisms. This complexity is in contrast with the organization of a small hospital, as the Amstelland hospital only splits care units into chirurgical versus contemplative and then into specialisms and the Van Weel-Bethesda hospital splits care units into care versus nursing and then specialisms. The management structure differs in use of single and dual management. The number of management layers also differs, as the sectors in the UMCG can be seen as an extra purely administrative non care producing layer, while the board of directors in the Isala klinieken is directly above dual managed autonomous units per group of specialisms (RVE, Resultaat Verantwoordelijke Eenheid, meaning 'Result responsible unit'). Academic hospitals do not have self-employed medical specialists (more on this in 4.2.3.), but in the other hospitals, the board of staff represents the specialists on a strategic level, thus involving them in higher management. Participatory bodies of patients, nursing personnel and other interest groups exist in all hospitals. Apart from hospitals, ZBC's often have a simple structure, as they only house a small selection of specialisms.

A private equity investor participating in a medical care institution needs to be incorporated in the structure and the structure largely determines how governance works in the hospital. The agency costs incurred by a hospital depend on this structure. Who owns the elements in the structure is the next topic.

4.2.3 Ownership

Ownership is at the core of risk bearing or equity investment, as the owners of the equity of an organization are formally the owners of the organization. Most hospitals are structured as foundations, meaning that hospital equity has no owner other than the foundation itself (Kerste and Kok 2010). The Slotervaart hospital is the only hospital in the Netherlands that is of a limited company (Dutch: B.V.) legal form. For last mentioned legal form, the equity is owned by shareholders. ZBC's in the Netherlands can be only a foundation, but many have a dual legal identity (Minister of Healthcare 2006). One part is a foundation that holds the WTZi license. Another part of the institution is a limited company housing the operations.

Current forms

Within the general ownership form, medical specialists in the Netherlands often participate in 'maatschappen' (loose translation: 'participations'). The specialists are owner of the maatschap, which commits to cure patients with referrals falling within the participations specialism. This commitment is formalized in a 'Toelatingsovereenkomst' and a medical staff document, stipulating the relation between the hospital directors and the specialists. So if the neurology maatschap has such an agreement with a certain hospital, then all patients entering the hospital who are referred for neurologic reasons have to be attended to by the maatschap. This private ownership by specialists is a source of complexity and specific to the Netherlands, most of the medical specialists are in this way self-employed as a maatschap member. Below table 4.2 summarizes the most relevant forms of ownership:

Table 4-2: Relevant legal entity types (Nederland 2011)

Legal entity	Owners of equity	Accountable	Liable
Foundation	None	Board of directors	Nobody[5]
Limited (BV/NV)	Shareholders	Board of directors	Shareholders up to their share
Maatschap	Members	Members	Members, unlimited

Relevant options

As most hospitals are foundations and most specialists self-employed, ownership of hospital equity is mostly of the foundation, with maatschappen housing most operations. Mentioned combination of a foundation with a limited does not only occur with the new ZBC's. Hospitals also use limited entities for specific activities, for instance to separate for profit research activities. Limited's can have various owners. A BV can also participate in a maatschap. Many options are possible, but ownership of equity most exist in order for a private equity investor to participate in the organization (besides mezzanine, see 3.2.2., but then options for control and selling are also limited). The separation of ownership and control is at the core of the principal agent problem (2.2) and gaining ownership and control is the aim of a private equity investor. Who owns the hospital and its parts under which conditions, is therefore decisive for the success of an investment setup.

4.2.4 Financial dynamics

An example

The organization of the medical landscape, especially the funding mechanisms, together with the setup and strategy of the individual institution, interact with the financial situation of the institution. Here an example balance sheet and profit & loss statement (P&L) is presented, before looking at which financial proceedings are of most interest.

[5] This is unless special conditions apply, for instance: if the board has pledged debt they could reasonably have expected to default on.

Figure 4.7 shows this aggregated balance sheet and profit and loss statement, based on the 2010 and 2009 financial statements of a financially stable large academic hospital and a financially insecure small general hospital (Erasmus 2011; Vlietland 2011). This does not present the situation of an actual or the average hospital, but the situation of a hospital halfway both examples.

Example balance sheet and Profit and loss statement

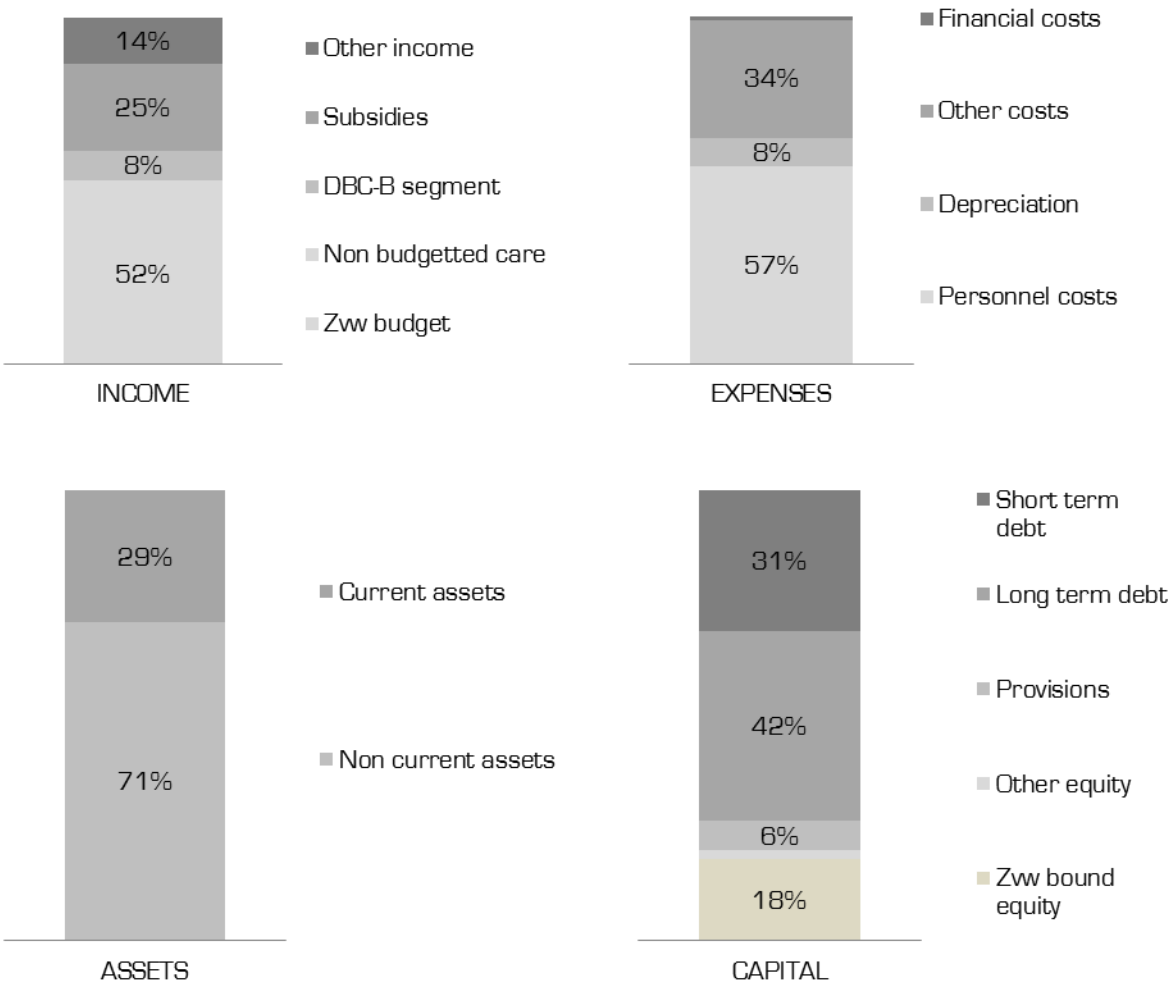


Figure 4-7: Example balance sheet and P&L statement (amounts in euro millions)

Important to note from these numbers

The balance sheet shows that both solvability and liquidity are low. Solvability for the average Dutch hospital is around 15%[6] (Gupta 2011). Of the relatively low equity financing, most is bound to Zvw purposes and some is free, for instance retained profits from research activities. Liquidity is especially problematic, as hospitals are used to relying on prepayment by insurance companies and insurance companies are becoming more and more reluctant to finance upfront. Because of this, 66% of hospitals in the Netherlands foresee liquidity problems in the near future (HEAD 2012). The P&L shows that most income is derived from the Zvw budget for A segment care. Subsidies make up a large part of income as the academic hospital used for the example is largely subsidized for academic purposes. A normal general hospital will not see much income in this category.

[6] Defined as Equity as part of Total capital

B segment care will be around 30% of Zvw income. Hospitals show small profits, since they are not allowed to use profits for other goals than those defined in their foundational statutes and set by the WTZi. Average profit in the Netherlands lies around 1,6% of turnover (Gupta 2011). The investors aim will be to increase efficiency in the most simple form. As growth in remuneration is capped (at 2,5% per annum), high gains in an existing hospital will depend on reducing relative costs to benefits from remuneration. Income can grow somewhat faster if the institution can prove to the insurers that they are 'steeling' that care from competitors. Keeping other costs and personnel costs steady, while output slowly grows, is a logical path for an investor in an existing hospital.

How funding guides actor behaviour

So how does this financial situation reflect on the workings of the organization? For the A segment the profit margin depends on how well the DBC represents the real costs of a procedure and cost-effectiveness. As 77% of medical specialist care still falls in this segment (Maarse 2011), DBC – real costs fit can be seen as a key driver behind financial reasoning in medical specialist care. The options can be simplified to two situations. First the DBC price may be above the real costs. In this case there will be an incentive to produce more of this DBC and to claim more of this DBC. Secondly the DBC price can be lower than actual costs, which provides incentives to claim more of this DBC and minimize production of this DBC, for instance by invoicing another DBC for the treatment. Both over- and underproduction occur and these instances of undesired behaviour may increase even more now that care givers and insurance companies are subject to increasing market risks and therefore have stronger incentive to perform financially (Gevel 2011). Recent research by (Hassaart 2011) suggests that approximately 5% of DBC 's claimed can be regarded as claiming more than appropriate. For the B segment the income will differ per DBC, insurance company and care institution, as it is subject to free negotiation. Here especially the functioning of the market will depend on the ability of insurance companies to provide countervailing power to the medical specialists, through negotiations with hospital management. Unfortunately, this power is lacking, leading to a poorly functioning market (Kerste and Kok 2010). Incentives to produce/ claim more are strong for the B segment (Hassaart 2011). In 2010 the B segment production (corrected for shifts from A to B) grew by 13,1% (opposed to 3,1% for the A segment), without explaining factors being found (Gupta 2011). Since DBC remuneration will be the source of income for an investment and the ratio between DBC amounts and real costs the profit margin, this fit and its consequences are very relevant to an investor. An investor will need to focus on overpaid DBC's and monitor price setting as a source of unreliability, especially for overpaid DBC's as those are likely to be cut.

Hospital finance is chaotic

Budgeting and funding is still mainly done through the existing supply based 'FB system' (FB stands for Functional budgeting), while remuneration works through the DBC system (Gevel 2011). Thus budgetary reasoning is not yet really based on the intended market incentives, but still on a supply based scheduling mechanism. This is exacerbated by the fact that the functional units in a hospital operate very independently, but their budgets end up together in one hospital financial statement. Because units can cover for each other, incentives will not completely land in the intended hospital parts. Examples were this works somewhat in favour of the investor in short term, are given by (Gaffney and Pollock 1999). They suggest that private financing in UK hospitals moves hospital management to shift allocation of costs to the hospital sections without private financing, in order to fulfil contractual dividend obligation for public-private parts, in this way making the public-private partnership look like a success, while performance is not increased. The problem for a private investor in the Netherlands will be the same inability to allocate true costs and their dependence on medical staff for this purpose. Porter (2011) has explored the problems with cost accounting, leading to low financial efficiency in medical institutions in general. Costs are not based on the patient total process, as they are not well administered, no appropriate management actions can be taken.

There is no systematic approach and finally cross substitution and lack of rewarding for efficiency

remove the incentives for management to perform. In general, incentives often appear wrong and transparency is lacking.

Separation of honorarium and other funding

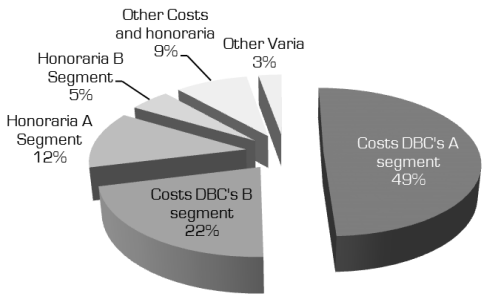


Figure 4-8: Breakdown Honoraria – other costs (Vektis 2011)

Another peculiarity is the strict separation between honorarium and other costs in case of self-employed specialists, within each DBC. To exemplify how this works, say a treatment DBC costs assistant work and use of real estate and that the costs of the assistant are for the maatschap to bear, while the real estate is paid for by the hospital. Then the maatschap receives the honoraria part of the remuneration and the hospital the 'other costs' part. This means that the payment of specialists in a maatschap is not linked directly to the financial performance of the institution (NZA 2011).

The medical specialists are in this way only rewarded for efficiency gains related to assistant use allocated to the maatschap, while a large part of the costs for producing the DBC are incurred by the hospital for real estate. The remuneration for specialists is not only set per DBC, but also capped in total, diminishing incentive to perform better when approaching the maximum. These dynamics explain the statement in chapter two, that interests of hospital subparts are not aligned with the interests of the entire institution.

Residual earnings

Ownership entails the right to residual earnings (Kerste and Kok 2010). These earnings are key to the attractiveness of an investment object for an investor. Dividend allocation from an entity holding the license for funding through the 'Ziektekostenwet' to anything but serving the goal of the licence is prohibited. Nonetheless there are other ways one may have access to profit. The first option is when the entity holding the license subcontracts to a legal entity with ownership. The maatschap (partnership of specialists) is the most common, and legalized form of this, but as mentioned ZBC's also often have a dual structure enabling the limited company part to make a profit out of the proceedings funded through the foundation part. This 'leaking of public funds' is known (Minister of Healthcare 2006). Other ways to allocate benefit to the owner is by having the owner or an entity in which the owner has a stake, provide services to the hospital or by using negotiated debt constructions (i.e. mezzanine). In chapter six is evaluated whether new legislation as currently presented to parliament provides new and better options for distributing profits. As the exit determines most of the investment value and the value at exit is driven by the ability to distribute profits, existence of options for profit distribution is a requirement for successful investment.

4.3 Developments

Chapter one introduced the developments around Dutch medical care and how they result in a challenge to provide higher quality care for relatively less funding, while sustaining accessibility of care. Sources such as Lucht and Polder (2010); Amersfoort, Rijk et al. (2011); Bos, Koevoets et al. (2011); RVZ (2011) all present a clear and similar direction for the medical care landscape.

Concentration versus local access

Quality and efficiency generally benefit from concentration and specialization. This leads to more focussed practiced groups of physicians, higher utilization of resources, more buying power: economies of scale. Accessibility as in solidarity, benefits from affordability and therefore also from concentration.
However accessibility as in proximity and quality as in acute care, benefit from local access and responsiveness. These two contradicting interests lead to a trade-off that will differ for each

specialism and which is related to volume and complexity of care (table 4.3).

Table 4-3: Complexity and volume versus concentration and local access (Bos, Koevoets et al. 2011)

	Volume	
Complexity	Low	High
High	Very high benefits from concentration	Benefits from concentration
Low	High benefits from local access	Benefits from local access

This demand for concentration and local access leads to a gradual reorganization of the medical landscape, which is depicted in below figure 4.9.

Resulting developments

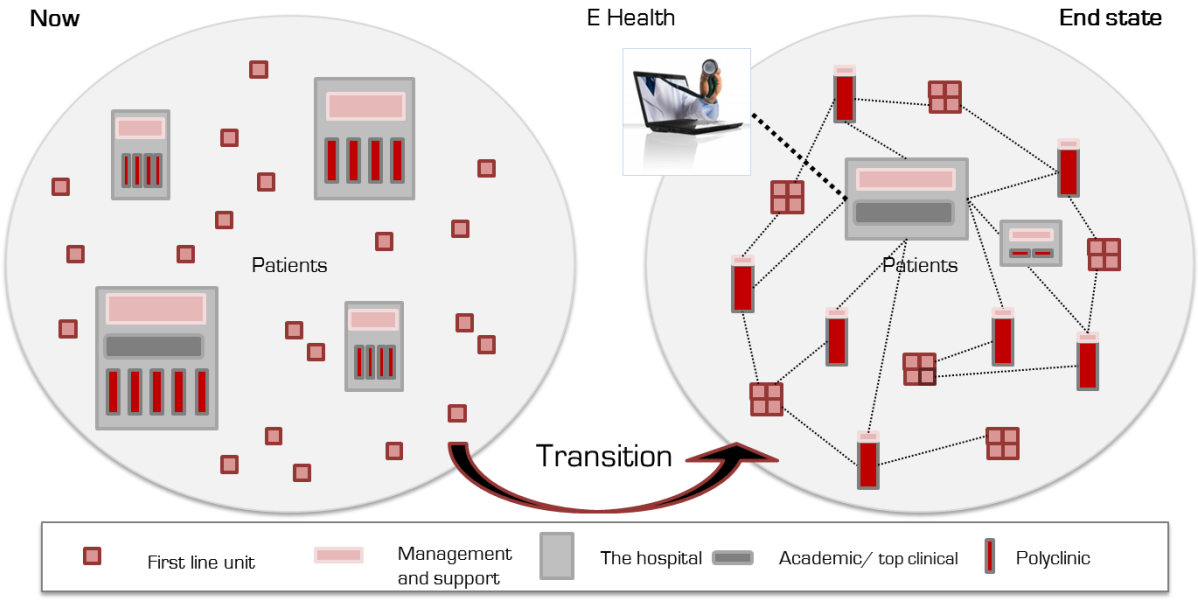


Figure 4-9: Developments in the medical care landscape

Selective concentration and local access

The various sources all describe the same developments. First line units, such as general practitioners or dermatologists, primarily need local responsiveness, but can still pool resources. This leads to the already underway development of first line health centres, were the patient can easily access the first line specialists. These centres are upgraded in capabilities from a 'traditional' first line self-employed practice, for instance with radiological equipment or a pharmacy. This brings more chronic care, closer to the population, in line with the shift from acute to chronic diseases. Care provided in polyclinics benefits from higher concentration and therefore needs to be moved to focus clinics. Most of the ZBC start-ups are a sign of the start of this development. Finally top clinical care and academic activities require concentration and appear to remain in large hospitals. The resulting players linkup in a network, sharing information and efficiently referring to and receiving support from, each other. The increased use and possibilities of IT infrastructures facilitate this move. The end state for medical specialist care as thus projected maximizes the benefits for quality, accessibility and affordability by applying concentration and local access to the right types of care.

Future

The four categories of care as delineated by the two axes complexity and volume are currently performed in certain institutions and likely to end up in certain institutions. Complex, low volume cases

institutional landscape

belong in an academic or top clinical hospital and this is likely to remain that way. Complex, high volume cases are also most commonly done in a top clinical setting, but may also shift to ZBC's for complex but predictable care. Low complex, high volume care is delivered in general hospitals but will largely shift to ZBC's. Finally the low complex, low volume care is currently provided in local small hospitals and this will probably remain as such for the coming years. A function that may come to existence in the next decades is that of a front office telling the patient which institution to visit. This could reduce inefficiencies. An investor will need a significant volume of care to enable business effectiveness methods to work, which makes low volume care a less likely target for investment.

Developments determine investment opportunities

These developments can be linked to the private equity investment approaches described (3.1) and to the assets that exist or will exist in the end state. For instance as general hospitals are to become, reduced in number, smaller and more focussed, a turnaround or rationalization approach for this asset type appears as logical. On the other hand, a growth strategy seems more appropriate for a focus clinic. Table 4.3 shows the options that remain with this line of reasoning. These resulting options will be evaluated in more detail in chapter seven.

Table 4-4: Investment approach – asset type- added value concept combinations

Investment approach	Possible asset types	Added value concept
Venture	No existing asset	Starting a ZBC (chain)
Growth	ZBC/ focus clinic	Expansion (organic/ acquisitions)
Buyout	ZBC	Applying leverage, ownership change, operational improveme
	Hospital	Ownership change, operational improvements
Turnaround	Hospital	Operational improvement; portfolio selection
Rationalization	Hospital	Portfolio selection, termination of activities and alternative as allocation

Summary and next steps

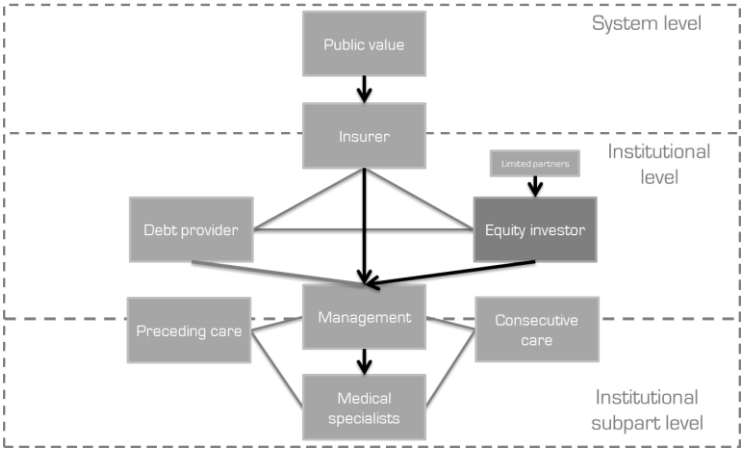


Figure 4-10: Additional aspects of the agency cost model following evaluation of the medical specialist landscape

This chapter has provided a basic view of the medical care landscape and the institutions in which medical care is organized. The model for agency costs is extended (figure 4.10) and more specifics for private equity investors in medical specialist care have been discussed. The care landscape can be segmented based on position in the patient process and in terms of complexity, volume and value.

The funding system guides a complex field of actors of which the insurers have a dominant role. The investment asset will be (part of) a medical care institution. The characteristics of the landscape shape the dynamics within these institutions of various types, organizational structure, ownership and financial aspects. Finally the developments in the landscape, in line with public value, provide the field for an investors' actions. The next step is to look at actual practice through empirical study.

5 Interviews and case studies

With empirical research, in the form of interviews and case studies, was determined how private equity investment in medical care has worked until now, why investment options have often been passed by investors and which strategies can further the goal of successful private equity investment in Dutch medical specialist care. This chapter presents the respondents, methods and outline of the interviews and basic information about the case studies; the results are analysed in chapter six and seven.

5.1 Interviews

Interviewing was used to chart the positions, experiences and insights of persons concerned with private equity investment in medical specialist care. Here the selection of respondents (5.1.1) and the interviewing methods (5.1.2) are discussed.

5.1.1 Respondent selection

Based on the actor field as described in chapter 4.1.3, respondents have been contacted with the aim of covering the relevant playing field, with a focus on private equity investors as the problem owner. Figure 5.1 places the respondents in a position from which they view the medical landscape.

Actor field coverage

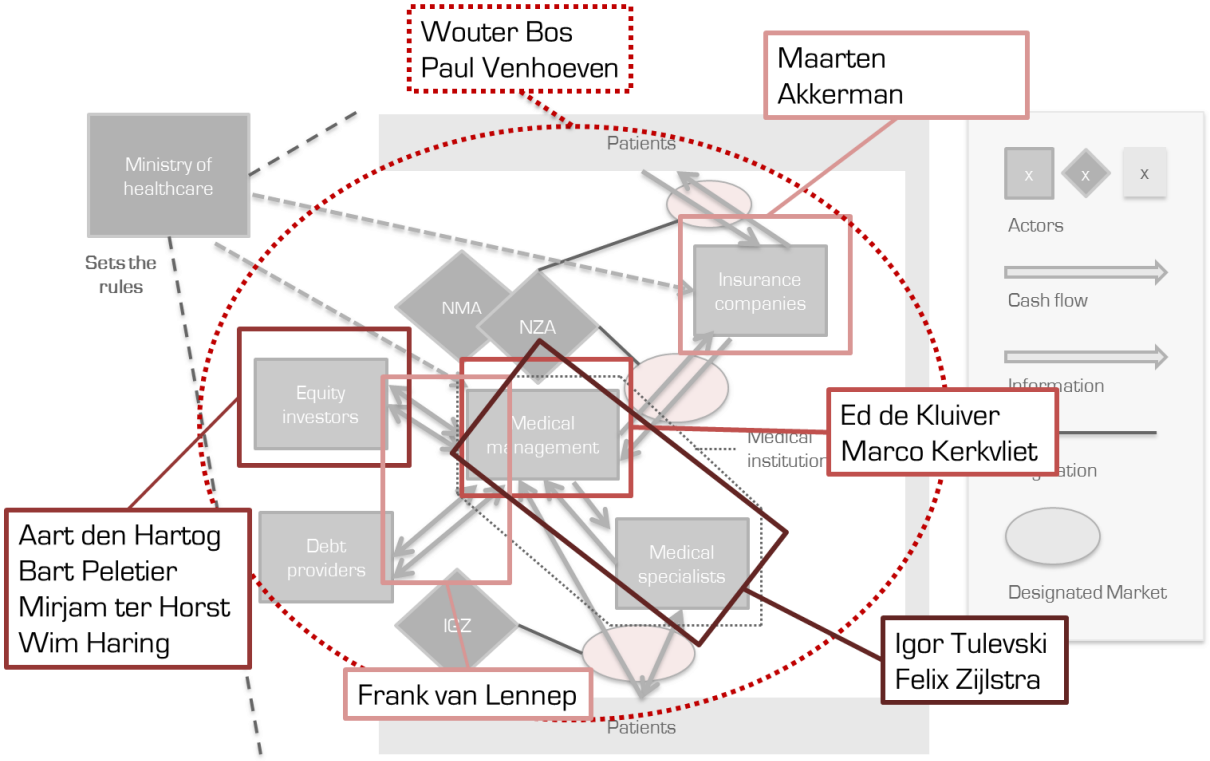


Figure 5-1: Interview respondents and their position in the actor field

Table 5.1 (next page) provides more detailed information about their functions relevant for the subject at hand.

Table 5-1: Name, organization and relevant functions of the interview respondents

Respondent specifics

Name	Organization	Relevant function(s)
drs. M. Akkerman, apotheker	Achmea Zorg	Senior Manager Strategy and Policy Hospital Care Procurement
drs. W.J. Bos	KPMG Advisory	Partner Healthcare advisory
drs. W. Haring	Waterland	Investment director
drs. A. Den Hartog	NPM Healthcare	CFO
Mr. M.J.M. Terhorst MBA	Rabo Private Equity	Associate Director
drs. J.M. Kerkvliet	Erasmus MC	Financial manager theme
dr. E.P. De Kluiver	Isala Klinieken	Head RVE, Former chairman Cardiology interest group
drs. F.J. Van Lennep	KPMG Advisory	Partner corporate finance, hospital financing
drs. B.J. Peletier	Residex	Director
dr. I.I. Tulevski	CCN	Founder, owner and medical specialist
drs. P.W.D. Venhoeven	KPMG Accountancy	Partner Healthcare audit and advisory
Prof. dr. F. Zijlstra	Erasmus MC	Theme chairman, medical specialist, Member Gezondheidsraad

5.1.2 Interviewing method and setup

The interviews have been loosely structured, starting with predetermined questions but adapting to the experiences, insights and emphasis of the respondents. Subjects derive from leads from the specifics of private equity investment and Dutch medical specialist care, as described in the previous chapters. Respondents have been asked to explicitly weigh the importance of issues, in that way creating clear priorities. Certain themes dominated in the interviews, which are shown in table 5.2, with some example questions per theme. Note that questioning was done in Dutch and the examples are therefore non exact translations of the actual language used.

Table 5-2: Interview line of conversation

Themes and the link with previous chapters

Question/ statement theme	Link with previous chapters
Promising opportunity Which opportunities in medical care investment are there and how can they materialize? How have you invested in medical care and what return has been realized and how?	*General characteristics of healthcare market and growth (chapter 1), private equity interests (chapter 2)*
Key obstacles Can you describe a medical care investment option which your company has evaluated in depth and why you did/ did not decide to participate? What are the key blockers for private equity investment in medical care until now and how have you dealt with these obstacles? What are the main differences between the most and least successful ZBC in your chain?	*Beginning stage of Dutch medical care investment (chapter 1), obstacles linked to agency costs (chapter 2), private equity criteria for investment (chapter 3), Medical care complexities (chapter 4)*
Who, what, where, why Which parties have shown interest or are active in medical care investment and why is their participation suitable for their own return/risk and for the involved medical institution? What determines the suitability of care segments for investment and how does this depend on complexity and volume of care?	*Specifics of private equity investment (chapter 3) and medical specialist care (chapter 4)*

What are key criteria for selecting a medical care investment object?

What are the most important financial dynamics in a hospital organization?

Translation of strategy to operations How have ownership and governance been structured in your organization to allow for internal goal alignment? How do you see the self-employed specialist and under which conditions can specialist ownership be beneficial to the goals of the institution? Are medical specialist 'profit driven involvement averse' and how can this be explained and reduced?	*Reducing agency costs between investor – management – specialists (chapter 2), private equity investment approach (chapter 3), Medical care complexities (chapter 4)*
Role and added value of the investor How did the relationship with management of your investment object evolve and why did you arrive at a successful partnership? How actively have you engaged in the management of the institution and how have you helped realize added value?	*Way of working of investor (chapter 3) with the needs of the medical landscape (chapter 4), agency cost reduction adds value (chapter 2)*
Dynamics between insurers, debt providers, investor and incumbent medical institutions How do debt providers judge medical financing options and how do they manage the relationship with management and specialists? How have you managed the relationship with incumbent institutions and how has that affected investment success?	*The medical actor field (chapter 4) and the position of the investor (chapter 3)*
Public value safeguarding How do you view the role of your organization in the medical landscape with respect to quality, accessibility and affordability? How do insurance companies actively control the medical institutions and how are they liable for public value success and failure?	*Alignment with public interests (chapter 2), the new role of the insurance companies (chapter 4)*

Within the interviews the conversation moved from case/ experience based discussion to generalization of the findings in that case/ experience to wider applicability. With each consecutive interview, level of detail has increased along with a shift from open questioning to discussion of statements, with open questioning. The results of the interviews are discussed in chapter six and seven, were they are presented based on interpretation and aggregation of all interviews together to increase validity, although the character of the analysis remains explorative.

5.2 Description of case studies

Choice

Three sorts of cases were explored. These were selected because of private ownership and/or best practice in terms of medical and operational excellence. These examples provide relevant lessons for private equity investment in medical specialist care. The cases are grouped and discussed by the three categories: hospitals with private ownership (5.2.1), ZBC's (5.2.2) and foreign dedicated hospital operators (5.2.3).

Sources

Basic information for these cases stems from the websites of the organizations, media in general and the annual reports of the organizations. The interviews provided additional in depth information, as several of the respondents are actively involved in investment in medical specialist care and/ or have studied for profit medical care in the Netherlands and other countries. In this paragraph, a brief description of the cases of interest is given, highlighting the aspects most relevant for analysis in following chapters.

5.2.1 Hospitals with private ownership

Slotervaart

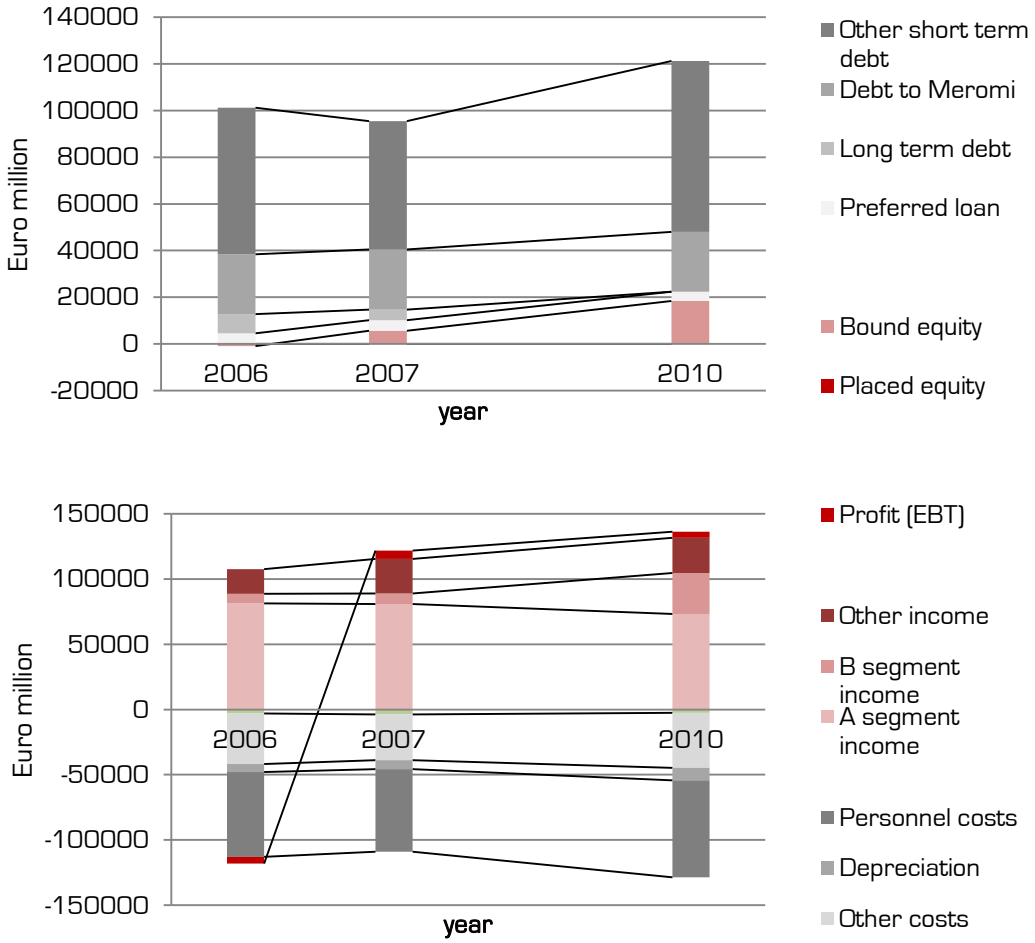
The First Dutch hospital with private ownership, therefore the first hospital with equity share ownership, is the Slotervaart general hospital. After years of dwindling performance and resulting financial malaise, the Meromi holding was allowed to 'purchase' the hospital in 2006. A limited liability company was created which continued under the WTZi license of the former foundation and acquired its assets and accompanying equity and debt.

The deal

Equity of the Slotervaart hospital was negative at the end of 2006, meaning that debt was higher than the value of the assets. Meromi holding therefore acquired net debt: an amount of negative 920.000 euro in equity on the balance sheet. For the board of a foundation to approve a 'sale' like this, they have to publish their intention and allow creditors to ensure their interests. This effectively means that the transaction and its conditions are negotiated between the investor, hospital management and creditors. With high debt and threat of discontinuity, as in the Slotervaart situation, creditor commitment is high. Creditors in the case of Slotervaart were local government which had provided a subordinated loan, insurance companies who had done advance payments, banks which had provided debt and most pressingly the tax authority, which had put forward an ultimatum for payment. As collapse of the Slotervaart hospital threatened, the creditors were inclined to accept agreements with promise of repayment. After promising negotiations with a consortium of two building cooperatives failed, Meromi holding was allowed to acquire the hospital. Tax debt was paid off immediately and deals with other creditors about payment (still subordinated for some) were struck. The financial implications of the deal were a minimal 18.000 euro equity investment to allow for creation of the limited company and a short term 25.7 million euro loan from Meromi Holding to the hospital, with 5,78% interest in the first year. In 2010 none of this debt to Meromi has been repaid. It entails a special debt construction with additionally negotiated securities:

As stated in the 2010 annual report:
Schulden aan gelieerde partijen:
Het Slotervaartziekenhuis heeft bij een van de aandeelhouders van Meromi Holding B.V. leningen afgesloten waarvan het totale saldo per 31 december 2010 M€ 25,7 bedroeg. Ter zekerheid is een pandrecht gegeven op de aandelen van Slotervaart Participaties B.V. en de aandelen van de 4e Beheermaatschappij Slotervaart B.V. De gemiddelde rente die in 2010 over deze lening is berekend is 6% op jaarbasis (gebaseerd op Euribor met 2% opslag). Eind 2005 heeft het Slotervaartziekenhuis, tot meerdere zekerheid voor betaling van de vordering van de Belastingdienst op het Slotervaartziekenhuis over de periode april t/m december 2005, een recht van 2e hypotheek verstrekt met betrekking tot de onroerende zaak Louwesweg 6 te 1066 EC Amsterdam. Delta Onroerend Goed heeft deze 2e hypotheek van de Belastingdienst overgenomen.

Therefore the total deal of Meromi holding with the Slotervaart Hospital can be summarized as equity investment with a subordinated and secured debt construction, providing both ownership control and additional security to enable their added value strategy and minimize risk exposure.



Financial performance improves

Figure 5-2: Slotervaart: capital structure and key profit and loss figures (euro * 1000)

Figure 5.2 shows how financial performance changed in the first year after acquisition and in the three year period after that. The new board of directors headed by Mrs. Erbudak from Meromi Holding, initiated an improvement program. The formerly negative result became positive after one year and solvability was improved to just above 15% by 2010, which is the level set by NZA as 'financially healthy'. Short term gains mainly originate from an increase in other income and a decrease in other costs. Gains from 2007 to 2010 mainly originate from a higher increase of income than associated increase of costs. Profits have been distributed to reserves that are part of the bound equity, thus explaining its increase and the higher solvability.

Through various improvements, reducing agency costs

The annual reports of the Slotervaart Hospital provide insight in the most important managerial actions leading to the improvement of quality and financial position. The most important change in 2007 appears to be the boards increased involvement level and direct translation of their strategies to care units, by removal of management layers. Other changes include the implementation of a health security system and personnel policies aimed at involving the medical specialists (all under contract, no self-employed). Long term policies in 2010 are the increasing of market share through a focus on quality with active performance measurement and adoption of a more patient oriented perspective of care. Highlighted is the fact that Slotervaart has followed a strategy, instead of remaining passive as might have been logical because of the 'high political uncertainty'. The board has thus used monitoring mechanisms, such as the security systems, performance measurement and removal of a management layer to decrease residual loss due to information asymmetry.

The medical specialists have all been placed under contract with their agreement, a form of bonding, while outcome based payment was implemented as a clear example of a monitoring mechanism, both for aligning interests. The reduction of agency costs materialized in the form of better quality of care and improvement of the financial position. Quality of care increased, as well as the financial stability of the hospital, making the private investment a success for public value thus far.

Mc Groep, the deal

The IJsselmeerziekenhuizen is a group of local hospitals situated in the province of Flevoland. Faced with the threath of discontinuity and under pressure from creditors, the hospital board decided to allow the MC Groep to take control of the hospital in 2009. Just as with the Slotervaart hospital the distress situation resulted in negotiations about the conditions under which the creditors would allow the MC Groep to take over the nett negative equity position of the hospital. Local municipality Lelystad agreed to cede their subordinated debt. New subordinated debt was provided by the ministry of VWS, the municipality of Lelystad and the province. In 2011 a second tranche of balance strengthening funding from the NZA wil be made availlable, in relation to which the MC Groep and VWS have provided a loan for overcoming the waiting period. The board of directors has been filled in by MC Groep, making it an administrative takeover, but not an equity investment. The MC group received 7% real interest in 2010.

Improvements that reduce agency costs

As the 2010 annual report is the newest available for the IJsselmeerziekenhuizen, recent financial results of the takeover are not yet available. The decrease of negative equity from -26,1 million to -24,4 million is a step forward, but does not reflect the full extent of change. However, the steps taken as part of the new strategy of the MC Groep for the hospitals are of interest. Similar patterns emerge as in the Slotervaart hospital. The management structure has been simplified by removing two layers, creating a short line between the board and care units, headed with dual management. Quality is being increased by new systems for internal audit and a planning and control cycle, performance indicators per specialism are reviewed quarterly. Also notable is the hospitals' propagation of volume for quality, through focus. The stated 'provision of basic care, but the hospital does not need to be in charge of the operational process', has been brought into practice by removing of certain specialisms from the portfolio of the hospital to ZBC's. Overall the hospital has grown significantly in terms of production. Latest development is the abandonment of self-employment for all specialists in the institution, which has been agreed upon in 2012. To bind the subparts of the hospital closer to the performance of the whole hospital, bonus/ malus systems related to hospital performance have been implemented and are applicable to all specialists. More or less the same bonding and monitoring mechanisms as applied in the Slotervaart hospital are used by the MC Groep, aiming at simultaneous reduction of information asymmetry and interest divergence.

Conclusions on agency cost reduction by privately owned hospitals

Most important to note from these case studies is that the only investments in hospitals in the Netherlands seem to be in a turnaround situation. As hospital equity has no owner besides the foundation, what to pay to whom for a takeover is unclear. However where the institution has negative equity, this problem disappears; this is further discussed in 6.4.1.After takeover, the hospitals are attempting to improve or have realized improvement mainly by simplifying the management structure and implementing quality management and better cost accounting. Information asymmetry is greatly reduced through these monitoring mechanisms. Medical specialist self-employment is minimized, but their interests are linked to those of the hospital with monitoring mechanisms in the form of outcome based contracting. The MC Groep also applies a focus strategy by applying portfolio selection based on volume for quality. The two investments are durably successful from a public point of view, however the private interests of the investors do not seem to have been rewarded with high return as yet and (undesirable) governmental support is needed in the case of the MC Groep. Perhaps this return will develop in the coming years; governmental support is already reducing clearly.

5.2.2 ZBC's

Explosive growth

The number of ZBC's has been growing steadily for the last years and their emergence can be seen as a first step towards the new hospital landscape, together with for instance the growth of the number of first line centres. For an investor in medical care, ZBC's present an obvious opportunity to create a focus factory realizing efficiency gains outside the traditional hospital. The allowance of ZBC's in 1998 was then considered a necessary but undesired legalization of certain private clinics providing insured care. However in the following years, their use for the dynamics in the medical care landscape was proven and with the adoption of the WTZi in 2006, the boundary between hospitals and ZBC's from a legislative point of view diminished (NZA 2007).

ZBC types and investor involvement

ZBC's can be grouped into two main categories. They all deliver low complexity work in the sense that outcomes must be predictable to enable efficient focus factory planning. Most ZBC's therefore focus on low complexity, high volume polyclinical care, however there is a second category of ZBC's who also deliver medically more complex care and have a surgery room. Note that they then focus on predictable surgery; lean methodologies depend on high volumes and predictable scheduling. In order to utilize the capacity of the surgery room, a more diverse pallet of DBC's will be produced in such a ZBC, while most category one ZBC's focus on one specialism. In this thesis the first category of ZBC's will be called 'small' and the second 'large'. Private equity investors have focused on existing chains of the large category for applying a 'growth' type investment (3.1) thus far. Their contribution is then the application of business effectiveness models and more focus, strengthened with a wide network and specific knowledge, for instance about acquisition based expansion strategies. There also appears to be a relatively high percentage of captive private equity houses involved, which is logical because they often have less fixed terms of investment, better suiting the longer terms needed for medical investment.

Both types of ZBC's show good performance. The same key improvements compared to normal hospital operations surface:

Added value through operational improvements

- Implementation of lean production streets
  The high volume, low complexity work is well suited for lean production. Concentrating on high volumes of the same operation leads apart from obvious high efficiency, also to high quality. Comparable to most business, a lean approach combines well with six-sigma/ total quality management (below). Waiting periods are almost zero and the patient undergoes all treatment in a sequence and is out within hours. Such a process can take weeks or even months with every step done individually, in a hospital.
- High service levels,
  - **For patients**, mainly in the form of easy accessibility, short waiting and processing periods
  - **For first line** referring specialists, in the form of easy accessibility for them and their patients and automated reporting
  - **For complex care providers**, as they only have to treat patients who are definitely in need of complex care, because of screening by the ZBC and the level of information delivered by the ZBC
- Information systems
  The backbone of the organization that enables described efficient production and high service.
  - **Quality management and Electronic Patient files**, enabling personal feedback on delivered quality per specialist and treatment type. All actors involved in the care chain from practitioner to top clinical specialist are fully informed.

- **Management information**, quality management and electronic patient files are linked to business and patient satisfaction data to create a full management information system in line with Electronic Resource Planning systems. This enables more effective management.

- **Specialist involvement**, ZBC's are founded and generally owned by specialists, who are fully liable for their share in the limited company. This full ownership is significantly different from the maatschap setup , as will be elaborated on in 6.2.1.
- **Creating a chain**, to enable resource sharing and learning. The setup costs for a first ZBC in terms of information system, WTZi licensing costs and negotiation with insurers per DBC are huge; for each consecutive branch significantly less. Profitability therefore increases as the chain grows. The various branches can share infrastructure, network, license and knowledge.

Results of the added value strategy

The results of these added value strategies materialize (NZA 2007; Boer&Croon 2011). Average prices demanded by ZBC's are 15% lower than for a comparable hospital department, making efficiency gains even higher as profit is also deducted. Patient satisfaction levels are high for healthcare. Quality is high according to IGZ standards. Collaboration with other care providers is more active. Private equity investors can contribute to the lean production, high service levels and implementation of information system and will especially profit from the repeating of an added value concept in a chain. The specialist involvement may be problematic, as the ZBC's with private equity ownership generally enlist specialists on payroll. The advent of ZBC's has been strong in the last decade, however the 2,5% growth cap for 2012 may be difficult to circumvent for ZBC's.

Agency cost conclusions

As in the cases of privately owned hospitals, the ZBC's show several bonding and monitoring mechanisms, reducing both interest divergence and information asymmetry. The information systems are a clear and important example of monitoring to reduce information asymmetry. Specialist involvement increases the knowledge management has about operations, thus reducing information asymmetry, and aligns interests. The principal – agent separation becomes less distinct and therefore agency costs are reduced. Lean production streets, high service levels and chain creation are examples of the high potential for added value in terms of quality and efficiency. This potential does materialize in ZBC's but these measures are often not successfully implemented in general hospitals, as information asymmetry is too high to control the specialists and they do not have the right incentives themselves (more on this in 6.2.1). Especially the information systems help to make alignment with the public interests transparent. On the whole however, the public value effect of the rise of ZBC's is disputed, which will be elaborated on in 6.4.2.

5.2.3 Dedicated hospital operators

Difficult comparability

Private investment in hospitals in for instance Germany, Scandinavia and the United Kingdom is often done by a dedicated hospital operator. These chains of hospitals are mostly successful in terms of quality and profitability and several of them are private equity owned. These dedicated hospital operators provide an interesting case in private hospital investment. Comparing private equity investment in Dutch medical care with foreign examples is difficult, as differences in especially healthcare funding create different dynamics. Nonetheless some lessons for the Dutch situation can be learned. General characteristics of German, United Kingdom and Swedish care are described by i.e. Adamini, Nelissen et al. (2010); Bos, Koevoets et al. (2011). Developments in Germany and the United Kingdom show a parallel, as more market mechanisms are introduced to create more cost-effective public healthcare provision. However especially the United Kingdom and Swedish systems of funding are still more state directed than the Dutch system where insurers are to take the lead. The German system of funding is comparable to the Dutch A segment: there is a market on volumes, but prices are set.

Both the German and United Kingdom systems show a large private insurance market share next to the public system. The Dutch situation is unique when it comes to for profit care provision: it is the only country where for profit providers are not widely active and were distribution of profits is 'prohibited'. The public value debate concerning healthcare in these other countries does emphasize solidarity, but the opinion that it is unethical to profit from someone's disease surfaces less.

Lessons for operations

Just as in the Netherlands, complexity concerning the governance in respect to the operational core is seen as problematic. As specialists are not self-employed, they are less autonomous hierarchically, but still powerful because of information asymmetry. In Germany and Sweden, specialist involvement appears as the key method of solving the management – specialist agency problem. Hospitals owned by Swedish operator Capio or German Helios show specialists in line management up to the board of directors. In the United Kingdom, dual management is also the main approach, but is seen as 'failing to really connect the subcultures of management, specialists and nurses'. As successful and profitable hospital operators, as mentioned Capio and Helios, have high levels of specialist involvement, the hypothesis that dual management reduces agency costs through both monitoring and bonding is accepted. A second lesson from looking at the operations of dedicated hospital operators is that part of the businesses effectiveness methods as described in 5.2.2 are also effective for entire hospitals. The for-profit players also use a conscious network approach, linking and transcending lines (as described in 4.3). Helios has even bought an academic hospital to enable the creation of a care system including fitting high complexity care and training. The agency costs between care providers relying on each other for providing a total care process, are thus reduced. Swedish healthcare shows the quality effects of quality management systems through registration (Kuenen, Mohr et al. 2011), which is a clear example of monitoring. The applied investment type in most for profit cases is the turnaround type. Investors are most attracted and/or most accepted by, hospitals in financial distress.

Lessons for public value

What does private investment in medical care in other countries tell us about the effects on public value? Studies show no clear distinction in terms of quality and efficiency between for- and non-profit hospitals (Tiemann, Schreyögg et al. 2012)[7]. Other factors are more explanatory. However, for profit operators do create new dynamics, as their focus on service and cost cutting forces other providers to do the same in order to stay competitive. The fact that performance equals non-profit performance, while the investors typically target hospitals in distress also suggests benefits for public value. Just as in the Netherlands, the public eye watches private operators closely in other countries. This pushes transparency requirements for the for-profit operators and therefore indirectly for all care providers. In general dedicated hospital operators seem to operate in line with public interests.

Summary and next steps

The interviews and case studies provide information about what the current state of private equity investment in medical care is and what will work in the near future. In the next chapters the findings will be used to chart the main agency cost drivers and to determine strategies for reducing those.

[7] The study uses input-output measures for efficiency, thus shortcutting the problem that for-profit and non-profit finance will show large differences in capital structure and costs. This then only leaves the bias in terms of the role of for and nonprofit hospitals in terms of complexity of care, that may exist.

6 Testing the agency cost model

In chapter one the assumption was made that medical care investment in general is highly attractive for private equity investors. This view is explored in 6.1; who are interested in investing, how can added value be realized? Then is described why investors have been hesitant so far. Agency cost have been too high, meaning that either the residual loss is too high as not enough monitoring and bonding mechanisms have been applied or those mechanisms come at too high costs. The interviews and case studies are used to evaluate the agency cost model formulated in chapters' two to four.

Result representation

Note that the presented interview results are not quotes, but a selected summary of the responses. Both interview and case study results have been evaluated on their consistency with theory and expectations of the researcher. Those results that are highly likely are presented, along with feasible unexpected results to retain a level of objectivity.

6.1 A promising opportunity not acted on

As described in chapter three, private equity investment success derives from the ability to add value. Private equity investment in medical specialist care is therefore a promising opportunity, as there are suitable investors (6.1.1) who have the potential to add significant value (6.1.2). Reasons for them not to invest are focussed around two themes (6.1.3) that lead to six agency cost factors (discussed in 6.2-6.4).

6.1.1 Suitable investors

Chapter two showed that the specifics of private equity investment may conflict with investing in medical care, for instance because of the exit pressure for private equity versus the long term view common in medical care. Are private equity houses interested in investing in medical care and/ or which other types of investors are? The empirical results indicate that multiple investor types are interested in medical care investment.

Case study results:

- *Private equity firms are actively investing in ZBC's and expanding their activity in that area.*
- *Two Dutch hospitals have been targeted by investors, with a turnaround approach.*
- *Captive private equity houses are relatively dominant in medical care investment, which is logical as their closer limited partner relations may allow for less fixed terms.*

Various interested investors

Interview results:

- *In the long run medical specialist care investment does not really match with the approach of private equity houses, investors with a longer term horizon, such as infrastructure funds, are more suitable.*
- *Interest from family offices is growing and they are very suitable investors as they have a long term focus, often also have social purposes and are prepared to work hands-on while there is much work to do.*
- *The limited partners do not actively involve themselves with management, but do provide network and knowledge.*
- *Vertical integration is countered heavily by the NZA/NMA, making medical care investment impossible for insurance companies, although it would provide interesting hedging options.*

Investor types differ in investment aim, time scope, hands on or passive approach and return and/or public value criteria. An ideal investor in medical care would be a public value driven, long term, hands on investor. The interests of such an investor would be well aligned with public interest and part of the interests of key actors, such as the specialists and insurers, thus minimizing agency costs. In reality this investor does not exist. Analysis of the findings is summarized in table 6.1, presenting investor types and the characteristics most crucial for suitability.

Table 6-1: Investor type characteristics (generalized, approximations)

Investor type characteristics

Investor type	Main investment aim	Time scope	Hands on or passive	Return and/or public value
Private equity house	High return	Medium term	Hands on	High return
Captive PE house	High return	Medium to long term	Semi hands on	High return
Insurance company	Safe assets, hedging	Long term	Passive	Return
Pension fund	Safe assets, hedging	Long term	Passive	Return
Infrastructure fund	Return from infrastructure assets	Long term	Passive	Medium Return
Dedicated hospital operator	Return from hospital exploitation	Long term	Hands on	Medium return
Family office	Expanding the family capital	Medium – long term	Can be both	Medium return and public value
Maecenas	Personal goals	Short – long term	Can be both	Personal return and/or public value
Medical care institutions	Synergies, protection from competition	Long term	Passive	Return and public value
Medical specialists and management	Autonomy, control, return	Long term	Hands on	Personal return and public value

Transition compatible

Paragraph 4.3 explained that a transition phase and an end state for medical specialist care in the Netherlands can be discerned. The respondents indicate that in the current transition phase, high efficiency gains stem from active investor added value based on business effectiveness methods (more on this in 6.1.2). This requires a hands on approach, which can be expected from private equity houses, medical specialists/ management and some family offices or a maecenas. Other investor types can participate as limited partners. In due time, the system develops and the market matures. This will diminish return and require less investor involvement, clearing the way for more family offices and then other institutional investors. The transition phase needs a hands-on mentality; in the long run a more public, long-term, passive approach will fit medical care investment. Figure 6.1 depicts these characteristics and its likely development.

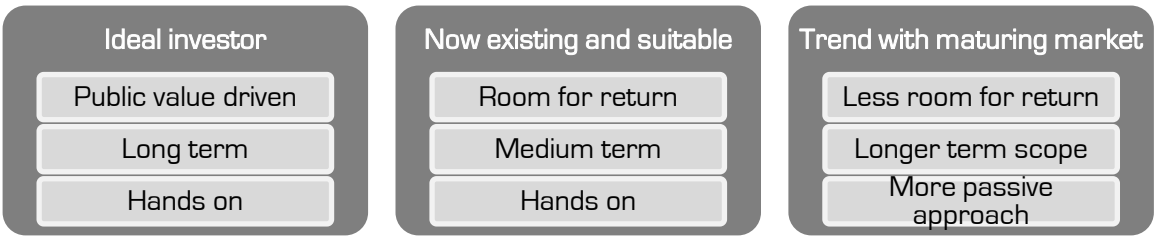


Figure 6-1: Investor characteristics and development

Several suitable investors

It can be concluded that there are various types of investors interested in investing in medical specialist care in the Netherlands. The described types and their characteristics are not delineated as clearly as suggested here, providing a fitting partner for many schemes.

Suitability is also highly dependent on the private equity investment approach chosen, as they differ in the need for hands-on involvement. The developments in the medical landscape also affect the suitability of investment for the various types. Suitable investors have less interest divergence with the public interests and the actors in the landscape, thus minimizing agency costs.

6.1.2 Value adding potential

It was suggested in chapters one and four that there is great potential for increasing quality and efficiency in medical care and that the investor could profit by realizing this potential. The interview respondents and case studies all confirm the potential for adding value.

Interview results:

- *There is great potential for increasing efficiency, through applying business effectiveness principles and sharing of resources. Utilization is key in light of the existing overcapacity.*
- *There is great potential for increasing quality, especially as perceived by the patient. This can be done by viewing operations from a patient perspective, information systems to monitor quality and scale.*
- An approach based on rationalization will become acceptable in due time, when the overcapacity and need to reduce this become more widely recognized by the public.
- Increasing cost efficiency works based on concentration, function differentiation, chaining, decentralisation and the use of new media

High potential for added value

- The ZBC's attractiveness for patients and first line derives for an important part from their easy access.
- Overall expected return from medical specialist care investment currently lies around 15%.

Case study results:

- Financial results and quality of the Slotervaart hospital were strongly improved.
- The ZBC's generally deliver quality care for less and turn higher profits.
- Foreign dedicated hospital operators are profitable and provide good quality care.

Both cases and interviews confirm that there is high potential for added value; this potential is related to the improvement of quality and efficiency as expected, but also to the improvement of accessibility as in the ZBC cases. A medium return for the investor is feasible with medical care investment.

To summarize how value is added, it can be stated that adding value is aligned with addressing the 'more quality for less' problem for Dutch medical care. Besides improving quality and efficiency, some accessibility gains are also feasible. Adding value is possible and feasible in the following ways:

Improvements for added value

- Improving quality
  - Increasing service for the patient, improving their perceived quality
  - Patient feedback
  - Relationship selection
  - Quality management
  - Scale and specialization advantages
  - Increasing quality through communication with other care providers
- Improving efficiency
  - Concentration for economies of scale
  - Function differentiation for specialization
  - Creating chains for resource sharing and value chain approaches

    - Decentralization for local responsiveness
    - Using new media for preventive care, simple care and marketing
- Improving accessibility
    - Local access without waiting periods and with easy planning for patients
    - Easy planning for other care providers

Repeatability is key

The interviews and ZBC cases confirm the notion that repeatability is important for successful private equity investment and for successful medical care investment. This is both for the learning effect of the investor as the sharing of resources effect of the institutions and is why private equity investors thus far have invested in, and expanded, chains of ZBC's.

The potential for adding value applies mainly to low complexity care and only little to high complexity care.

Interview results:

- The high complexity cases require high levels of coordination and are highly unpredictable, leading to great strain on resources. Lack of ability to plan and strain on resources due to complex activities reflects on the ability to plan and execute low complex activities in the same institution.
- Even with several business effectiveness improvements in place, efficiency for complex care is strongly limited and dependent on the speed of the specialists' proceedings.

High volume, low complexity suits business effectiveness methods

Case study results:

- Private equity investors have limited investment to ZBC's providing schedulable, high volume care activities.

The high volume, predictable, medical activities are therefore the most interesting for an investor. For instance specialisms such as dermatology, plastic surgery, diagnostics and anaesthetics are popular choices for ZBC's. High volume and low complexity matches well with business effectiveness methods such as just in time and total quality management and allows the investor to better understand what the business is doing. For instance complex organ transplantation is far less transparent in terms of costs and benefits, increasing information asymmetry. Investors can realize the highest benefits when focussing on high volume, low complexity care, because information asymmetry is correlated to complexity. Furthermore the high potential benefits linked to the high potential for added value for high volume, low complexity care, can be used to align interests through distribution of these benefits.

6.1.3 Two main themes in terms of obstacles for investment success

Complex governance

Public value driven uncertainty

It has been established that there are suitable investors, who want to invest in Dutch medical specialist care and there is high potential for added value. However, only few private parties have invested in Dutch medical specialist care. As expected based on theory, the complex governance of the operational core and public value driven uncertainty were named as the main problems for medical investment. These and related problems materialize in the relations between key actors. The agency cost model is used to evaluate the obstacles as sources of agency cost, for all relations in three arena's (figure 6.2).

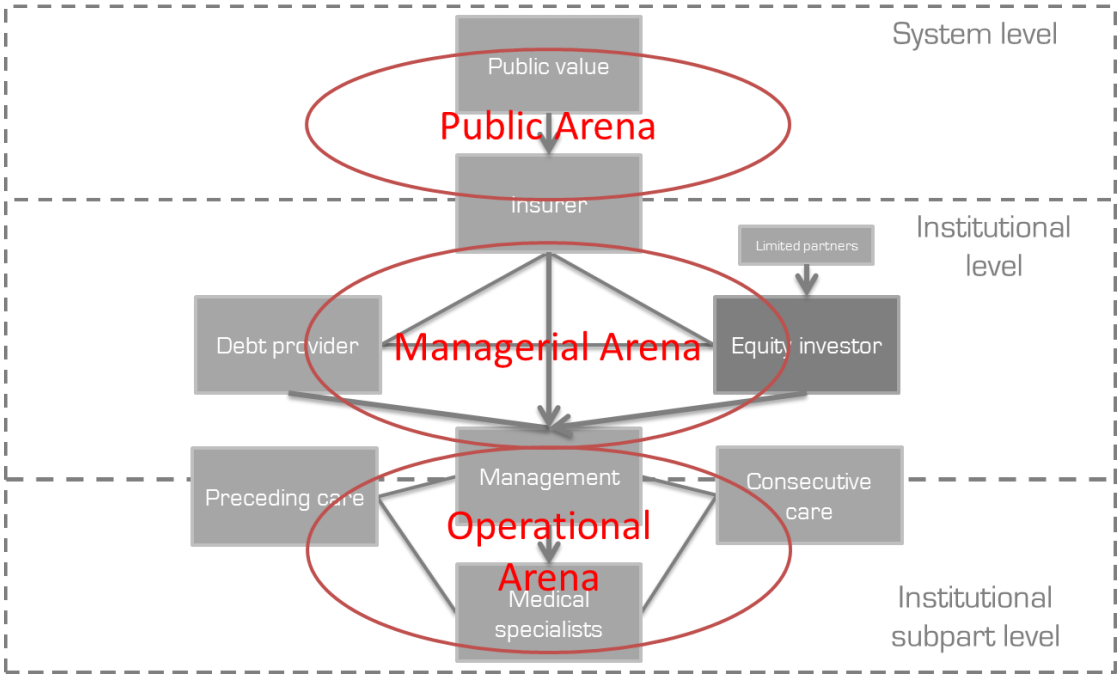


Figure 6-2: Three arena's with agency costs to minimize for several relationships

Three levels with two key obstacles each

The agency model is dealt with per level. The agency costs for these relations were evaluated, based on the interviews and case studies. In this way two main obstacles have been found for each level. The next paragraphs discuss these cost factors for each level. The complex governance of the operational core is a problem centring on the operational level, while the public value driven uncertainty clearly originates from the public level. The managerial level is the playing field of the investor.

6.2 Main obstacles for investment success in the operational arena

Figure 6.3 shows the main agency cost factors or obstacles on the level of the institutional subpart, or the operational arena. The first obstacle is related to the relation between management and specialists (6.2.1) and the second obstacle is related to the relationship of the institution (management and specialists) with other care providers (6.2.2).

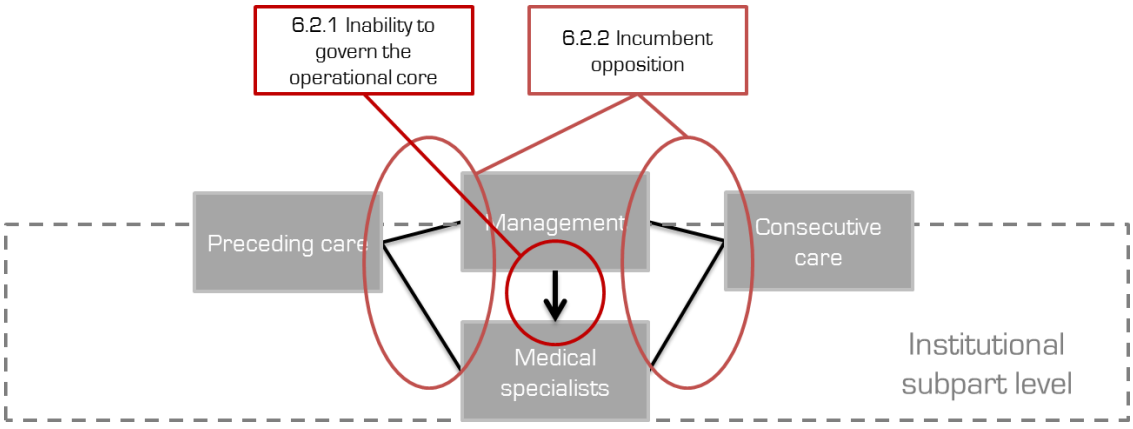


Figure 6-3: Main agency cost factors in the operational arena

6.2.1 Inability to govern the operational core

The dominant position of the medical specialists leads to the problem of how to organize governance of this operational core. As expected based on theory, the respondents generally emphasized that:

Interview results:

This is the biggest obstacle

- *Inability to control key decision making and to ascertain that strategy is implemented by the medical specialists (especially when in a maatschap) is the strongest obstacle for private equity in medical specialist care so far.*

An investor looking at an investment case wants to know upfront that control is possible, or that interests and vision on the strategy are aligned to a degree that behaviour of the specialists as agent is certainly as desired.

The agency costs on this level are driven by high information asymmetry and high interest divergence. Informational asymmetry considerations are the main reason for the investment focus of current investors.

Interview results:

- Investment focus for private equity is on high volume, low complex, predictable care, in order to allow control over operations.

High asymmetry, complexity related

Case study results:

- The ZBC examples in the Netherlands show a clear focus on certain specialisms and activities

The notions from theory (chapter 2.1) about the high information asymmetry in medical specialist care were confirmed by the respondents. This drives the agency costs in the operational core to high levels. This high information asymmetry is for a large part inherent in the professional bureaucracy organisational form as suggested by theory. Therefore the rest of this paragraph focusses on interest divergence as the source of agency costs which will show most potential for reduction.

Agency costs in the operational area are also driven by the diverging interests of specialists and management; of the subparts of the institution and the institution as a whole. The interests of the medical specialists are not aligned with those of management because the incentive structures are dysfunctional, while the profession rewards a heavy focus on quality in operational trade-offs.

Interview results:

- *Medical specialists in general have little incentives to limit production or to increase efficiency.*

Incentives dysfunctional

The main problem with the incentive structure derives from the financial dynamics within the institution (4.2.4). Self-employed specialists are rewarded based on production, while only a small part of efficiency gains affects the maatschaps' financial performance. On top of that the remuneration of specialists is capped, also making efficiency gains that do affect the maatschaps' financial performance relevant to the personal financials of the specialists up to a certain suboptimal level. The financial incentives for cost efficiency are therefore weak. Secondly, non-pecuniary incentives strongly push towards quality in every quality/ cost trade-off and cost-efficiency is generally a low level priority for specialists.

Interview results:

- *There is an inherent tension between the specialists overarching aim for quality and operational cost efficiency. The medical culture does not match well with a business approach.*

Cost allocation problematic

Thirdly, cost allocation in medical institutions lacks transparency and accuracy, which is why incentives do not land in the right place. This further minimizes benefits to be had from high performance as a lot of the financial effects will result from the performance of other parts of the institution and are scarcely verifiable. Cost allocation has often grown in decades of internal politics instead of being based on actual operations. These factors explain the misalignment of interests between the specialists and management. The personal and professional interests of the specialists require high quality and in case of self-employment, high levels of production. Cost efficiency appears to contradict the pursuit of quality and has limited financial effects for the specialists' personally.

Altogether, the position of self-employed specialists in the Netherlands is peculiar:

Interview results:

- The maatschap is a difficult organizational entity to control and this is a key obstacle to private equity investment in general hospitals.
- *Self-employed medical specialists have a unique position: they run a business with high return, but almost without associated business risks.*

Unique self-employed position

Interview results:

- *Investors have mostly opted for specialists under contract and try to minimize self-employment.*

The medical specialists are in the unique position to have significant upside from their actions, without incurring many of the risks normally involved in running a business. There is no debtor risk as insurers cannot reasonably be expected to default. Liquidity needs no attention because of advance payments. If a specialist fails with his diagnosis or treatment and has to redo a DBC, he can invoice the second DBC without trouble. There is a trend to try to push specialists into contract service instead of maatschappen, however this is obstructed by the specialists' sense of collective freedom of the profession. The medical specialists are not motivated to drastically change how medical care in the Netherlands works due to their position. In paragraph 7.2.2 bonding and monitoring mechanisms to shift the specialist from this position are discussed.

The gravity of the specialist governance problem can be further explained by the fact that the real value in the organization lies with the medical specialists, their network and knowledge.

Interview results:

- *A significant part of the real value generating assets of a medical care institution are not activated, most notably the medical specialists and their network and knowledge.*
- *Decades of supply based planning have led to serious overcapacity in terms of real estate and equipment. However banks are still not critical enough and willing to fund on-going new building plans.*
- *Alternative allocation of hospital real estate is difficult, reducing the market price.*

Specialists are the assets

These three notions emphasize the higher value of intangible assets over those visible on an institutions balance sheet. Therefore a board of directors may sell the assets of an institution, but without the willingness of the medical specialists to remain working, their value decreases strongly.

Management pivotal position

Translation of the interests of investor, debt providers and insurance companies to the operational core and vice versa is the task of management. Management faces a significant challenge translating strategy to the operational core.

Interview results:

- *Quality of the management team is a key criterion when looking at investment options*
- *An organization with only non-medical management will be less effective, as knowledge and network are very important and the medical world does not take an open stance towards outsiders. However, specialists may shirk from management responsibilities as this will increase their personal risk exposure and workload and personal rewards for medical performance are higher.*
- *Private equity houses are currently not looking for turnaround investment cases such as Slotervaart. The Slotervaart hospital had a management problem, while investors are looking for investment objects with effective management to buy-and-build.*

Management, as link between the operational core and the investor (and other important actors) is a crucial actor. Selecting and increasing management quality will drive investment success in line with standard private equity practice (chapter three). The options for doing this and considerations about the balance between specialist managers and business managers are explored further in chapter seven. Management plays a key role in minimizing agency costs by applying the right monitoring and bonding mechanisms, especially when dealing with governance of the operational core of medical specialists.

Conclusion on governance complexity

To summarize this paragraph: the most important obstacle for medical care investment success is the complex governance, hindering ability to realize the potential for added value. Medical specialists have incentives to increase production and quality and lack incentives to increase institutional cost-efficiency. The self-employed specialists have a unique and powerful position, with significant upside capped at a certain level and almost no risk exposure, which makes changing their incentive structure very difficult.

6.2.2 Incumbent opposition

In chapter four was described that the quality of the care process for the patient derives from the total process, from first to third line. This leads to the need for collaboration with preceding and consecutive care, which will often be (partly) incorporated in general hospitals, which will also provide competing services. This 'needing your competitor' was confirmed as an important obstacle by all respondents and shows clearly from the case studies.

Interview results:

Delivering a total process

- *When starting a ZBC in a region, attitude of nearby hospitals can range between cooperation and outright hostility because of competition.*
- *Increasing quality is to a large extent dependent on choosing the right institutions to work with for other parts of the value chain for the patient, not performed by the own institution.*
- *New ZBC's and top clinical hospitals can work in symbiosis, as the ZBC's can greatly increase the ratio of valuable patients out of total patient interactions.*

Case study results:

- *The ZBC chains deliberately advertise with their collaboration, the value of medical care for a patient is determined by the whole process he/she goes through.*

Collaboration essential for medical practice

A general practitioner will also be judged on the quality and service delivered by the radiologist he refers his patient to. A ZBC providing basic second line diagnosis needs first line referrals, but also needs a good relation with a third line institution to ensure high service and high quality complex care for the patient in need of more complex treatment.

An academic hospital focusing on complex care benefits from the additional screening done by a second line ZBC, as this will eliminate a lot of patients needing low complexity treatment from their responsibility. However the academic hospital will need access to less complex care for specialists in training. Unless the whole chain has the same owner, such interdependencies will exist and be of importance for the performance as perceived by the patient. This is in line with the trend to accept need for portfolio selection and communication about service division in the region. This incumbent power is especially relevant because of the static planned economy background of Dutch healthcare. Relationships do not shift easily and existing overcapacity makes creating new capacity less attractive. There may also be various contractual obligations existing between players, disallowing the dissolution of existing for new collaboration. An investor must attempt to align interests between care providers with dependency and increase the sharing of information to reduce information asymmetry. This way agency costs are reduced and quality and efficiency of care provision increases. Ways to improve collaboration instead of competitive opposition are discussed in 7.1.3.

6.3 Main obstacles for investment success in the managerial arena

The managerial arena is not where the complex governance or public value driven uncertainty surface, however it is the playing field of the investor and the relations there greatly influence investment success. Looking at the relations on this level, two main obstructions for success were found (figure 6.4). Firstly high agency costs in the relation between the equity investor and management of the institution (6.3.1): the most crucial relationship for 'investment in medical care'. Secondly there are several interdependencies between debt providers, management, equity investor and the insurer (6.3.2).

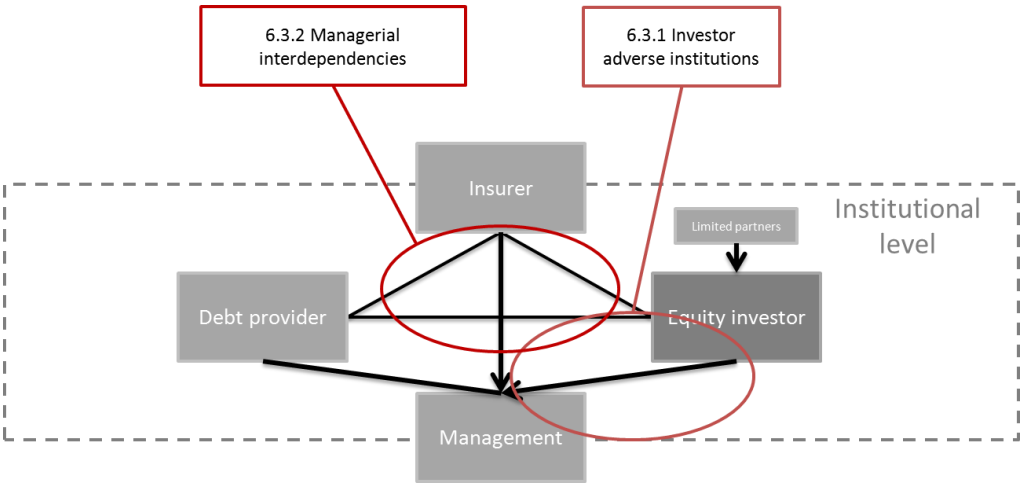


Figure 6-4: Main agency cost factors in the managerial arena

6.3.1 Investor adverse institutions

Because of the equity investor perspective taken in this thesis, the principal-agent relation between the investor and the management of the investment object is of specific interest. In 6.1 was established that medical care investment presents an opportunity for the investor, providing an important reason for investors to reduce the agency costs of this relation. The respondents generally concurred that:

Adverse to, but growing need for, investors

Interview results:

- Medical specialists and management are generally for-profit involvement averse, which is why it is difficult for an investor to find assets accepting their participation.

The specialists fear that the interests of the investor will not be aligned with theirs. Therefore it is important to understand why management of the institution would want private equity involvement and which role they would want the investor to perform in order to understand the agency costs in this relation. Although medical care institutions, especially general hospitals, are conservative, they are under increasing pressure to accept private investor involvement. The respondents confirmed many of the pressures described in chapter four and indicate that these are reasons for hospitals to take a more open stance towards investors.

Case study results:

- Investors are becoming gradually more active in medical care. Interest from investors has always existed, but the management of the investment objects are adopting a more open stance.

Interview results

- *Hospitals are under increasing pressure and need private equity investors, because they for example:*
  - *lack a certain competence*
  - *face heavy pressure from banks, as borrowing is becoming too expensive and will be less expensive when solvability is higher*
  - *fear competition and being driven out of a certain specialism in the region*
  - *need capital for funding growth ambitions*
  - *face heavy pressure from insurance companies*
  - *need to plan financially because payment is no longer upfront, leading to liquidity issues*
  - *need expertise on acquisitions for expansion*

The completion of the pay for performance program increases pressure on financial performance from all sides. Investors are needed for equity financing and for knowledge on business effectiveness, acquisitions and other fields that are traditionally outside of the medical specialist care scope. These developments help to align the interests of the care institution and the investor, which thus reduces agency costs.

6.3.2 Managerial interdependencies

Table 6.2 shows the most important interdependencies between the actors in the managerial arena.

Table 6-2: Need of actor x in relation to actor y

		Depends on actor y for..			
	Actor x:	Investor	Insurer	Debt provider	Management
Interdependency	Investor		Long term cash flow reliability	Debt for adding value plans	operational efficiency, execution of strategy
	Insurer	Equity in order to reduce the need for prepayment in light of Solvency II, increased quality, affordability		Debt for increased quality, affordability	quality, affordability
	Debt provider	secure lending in light of Basel III	prepayment for liquidity		repayment, increased lending
	Management	Equity, expertise, network	Funding, prepayment	Debt for liquidity, growth	

Increasing actor commitment

The interdependencies show the most important current goals for the various actors, which vary in their alignment with those of the institution (management and perhaps investors). The investor can collaborate with management, debt providers and insurers to realize their respective goals.
This is partly true when it comes to the relationships with insurers:

Interview result:

- Insurance companies are becoming increasingly demanding and selective when procuring care. They want to reward health improvement instead of care production through funding.

The public value goals of insurance and how they are operationalized are elaborated on in 6.4.4.

Interview result:

- Banks are increasingly critical towards medical care institutions, as their own capital is scarcer and medical care institutions face more market risks. Especially the removal of government backing of loans is impacting. Banks are becoming more selective based on adherence and regional development of the medical institution.

Banks and insurers are increasing the pressure on medical care institutions and their interests must be managed for successful private equity investment in medical specialist care. The actors in the managerial arena depend on each other and can exchange benefits.

In summary: Conflicts of interests can be kept minimal; however two issues emerge as potential conflicts.

Two key issues concerning managerial interdependency

The financing issue; banks are more hesitant to provide loans and insurers want to cut back prepayment, because of Basel III and Solvency II related pressures, while hospitals have the same or higher capital demands.
The funding issue; insurers want to fund patient health improvement and are under increasing pressure to do so, while the current system rewards production.

Besides these two issues keeping agency cost in the managerial arena low is feasible in the current situation; however it should be noted that this may be because of the potential for growth and added value. In a more mature market with lower margins, interests may have a sharper edge. The four actors in this arena can exchange benefits and reduce agency costs for each other. For instance an insurer can provide a multiple year contract guaranteeing the investor funding, in return for which the investor can put up more equity to reduce the need for prepayment. Dependencies are In this way subject to finding mutual benefits by minimizing information asymmetry and aligning interests.

6.4 Main obstacles for investment success in the public arena

This paragraph first describes the relation between public interests and the other actors, focussing on how the agency costs are increased because the public interests are not clarified and operationalized for the actors in the medical landscape by legislation (6.4.1). Then the relationship between public interests and the insurer and how the insurer translates this to the other actors in the managerial arena is evaluated (6.4.2). These two subjects present the two obstacles for investment success on a system level on the public arena (figure 6.5).

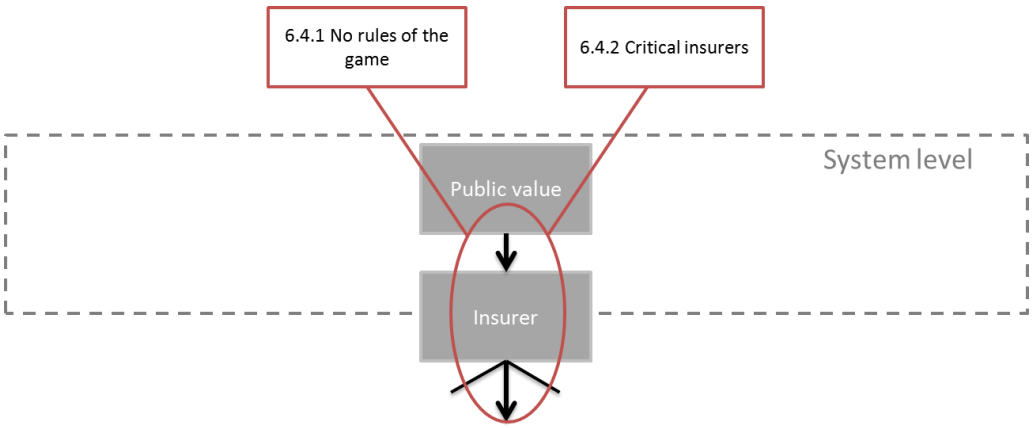


Figure 6-5: Main agency cost factors in the public arena

6.4.1 No rules of the game

In all interviews the topic of the Dutch public value debate surfaced as crucial. Theory suggests that investment must be aligned with the public interests on a system level; but that in reality public value trade-offs often emerge locally. This is definitely the case for Dutch medical specialist care, as all respondents indicated that the lack of clear public interests, translated to legislation, is a key obstacle for investment success.

Interview results

- *The Dutch public value debate concerning healthcare is heavy, especially when the issues 'profit from illness' and solidarity are concerned.*
- *Principal fears are that private capital in healthcare will mean that the state will end up with the most costly parts and that such expensive care will not be accessible for everyone anymore.*
- *Hospitals derive power from the fact that any concern in the media about perceived threats to for instance the solidarity principle are blown out of proportion.*
- Political actors fail to create the new hospital landscape, because of the many vested interests. Investors see the advantages to be had and specialists face limits on payment and perceive efficiency improvement options. The result will be that the specialists will be hollowing out hospitals, aided by private investors.
- Clear and long term reliable rules of the game for doing business in medical care are missing.

Heavy debate, but no clear rules

Because of the gravity of the public value debate concerning care, investment in medical specialist care without considering the consequences for quality, accessibility and affordability and accompanying public reaction, is unlikely to be durably successful. This is why the interests of the various actors in the landscape and public interests must be aligned. However, this importance is not reflected in the quality of the legislative and other conditions surrounding investment in medical care. Especially because of the enormous transition healthcare has been undergoing, many details are uncertain. The future state of healthcare is clear for policy makers, but reaching this state is not facilitated by clear rules and this is unlikely to change in the near future. Political actors seem to react ad hoc to developments and a clear line has not been established. The investor must deal with these uncertainties, by aligning with public interests to reduce exposure to regulatory uncertainty and by making this alignment transparent to minimize information asymmetry. Four examples of public value driven uncertainty the respondents mentioned often are: the how to buy a hospital problem, profit distribution allowance, macro caps and DBC – reality fit.

System optimality versus local interests

Hospitals have been paid for through public mechanisms, from public and private sources (4.1.2) and are therefore seen as public property. The equity of a foundation has no owner except for the foundation itself. So what will an investor pay for a hospital and to whom, or will he 'get' public property? This uncertainty was seen as an important reason not to invest in a hospital by the respondents.

Interview results:

- Will the investor take over debt; acquire equity and from whom? Such issues are problematic when taking over a hospital.
- To avoid public agony, it is important to differentiate public and private money within the institution.

How to buy a hospital

Case study results:

- The only hospitals taken over in the Netherlands had negative equity.
- Most of the hospitals targeted by for profit parties in other countries were in financial distress.

This problem conflicts with the private equity investment approach as gaining ownership and selling equity at the exit is the core of realizing value in private equity investment (3.2.4). A hospital in distress may have negative equity, which reduces the gravity of this problem, as especially the case study results clearly show.

Hospital equity types

Hospital equity can be grouped into categories, based on three distinctions (figure 6.6). First there is a distinction between capital placed and capital derived from residual earnings. Secondly, equity can derive from WTZi funding or from other mechanisms. Examples of other mechanisms are a hospital providing laboratory services for a private clinic or receiving funds from an organization for specific research. The third distinction is linked to the foundation organizational form of hospitals and is crucial for the switch of the investment object to a legal form allowing participation. Based on article 2:18 lid 6 BW[8] and supreme court judgment BN8852[9], it can be established that 'equity, as the sum of all assets and liabilities, at the time of transfer from foundation to another legal form, remains bound to the goals set out in the statutes of the original foundation.

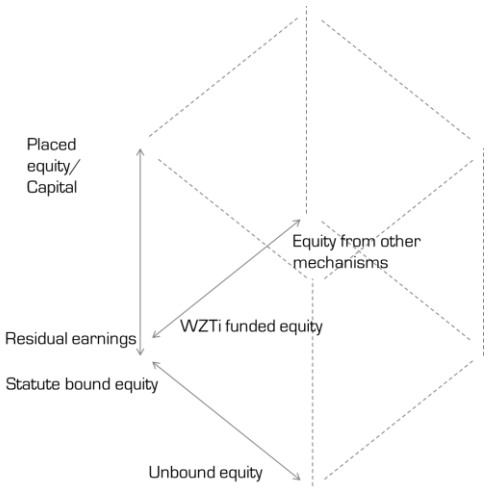


Figure 6-6: Hospital equity categorization

[8] "Na omzetting van een stichting moet uit de statuten blijken dat het vermogen dat zij bij de omzetting heeft en de vruchten daarvan slechts met toestemming van de rechter anders mogen worden besteed dan voor de omzetting was voorgeschreven. Hetzelfde geldt voor de statuten van een rechtspersoon voor zover dit vermogen en deze vruchten daarop krachtens fusie of splitsing zijn overgegaan"

[9] "Ondernemingsrecht. Jaarrekeningprocedure over havenpensioen; omzetting van een stichting in een N.V. ; beklemd vermogen als bedoeld in art. 2.18 lid 6 BW is in het onderhavige geval het saldo van alle vermogensbestanddelen op het moment van de omzetting"

Equity type determines exposure to public uncertainty

The various types of equity differ in terms of whether their transfer to a private party is disputable from a public value point of view. Taking the strictest view, it can be stated that even after separating all equity as statute bound equity, the public does not get enough because of the value of inactivated assets build with WTZi money. As almost all hospital equity can be considered, residual earnings, WTZi funded and statute bound (see example hospital balance sheet, 4.2.4), these 'how to buy a hospital' considerations are a source of uncertainty for the investor.

Profit distribution is a second example of lacking rules of the game. As mentioned, profit distribution is formally prohibited but practically possible in Dutch medical specialist care. Opinions of the respondents concerning the importance of the ban on profit distribution differed:

Interview results:

- Evaluation of investment options by private equity houses often turned out negative because of limits on return due to the ban on profit distribution.
- The ban on direct profit distribution is not a crucial obstruction for medical care investment as there are enough hybrid constructions possible. However, formal allowance would increase the liquidity of the assets.

Case study results:

Profit distribution banned but possible

- Profitable private equity investment in medical care already exists in the form of ZBC chains who can distribute profits by housing operations in a limited company that invoices DBC's through the foundation with the WTZi license. However, expected returns are not high for private equity standards.
- The MC Groep has adopted a non-equity, administrative takeover of the IJsselmeer hospitals, with additionally secured debt financing.

It appears that profit distribution is not a requirement for medical care investment to be successful, but would improve its attractiveness. The value at exit would be increased because of higher asset liquidity. Various workarounds such as the ' limited under an entity holding the WTZi license' or mezzanine or other debt constructions provide some opportunity for return from medical care investment in the meantime.

Does the legislation laying before parliament in 2012 present a unique opportunity and the starting sign for large scale medical care investment? The law for regulated distribution of profits in Dutch medical care (2012) allows dividends after solvability and quality is ensured, if there is no current state support for the institution and from three years after investment. The ministry must be asked to rule the institution fit for profit distribution based on quality management and standards. For further enforcement the law first aims at self-regulation by the board and supervisory board of the institution and on the IGZ, NZA and ministry who can resort to punitive measures if criteria are not met. Academic hospitals are excluded. When the law passes it is intended to come into force in 2013.

New legislation as an opportunity?

The current version however does not create rules of the game for all investment in medical specialist care and in line with public interests. A first weakness is the attempt to limit medical care investment to investors with a long term view with the following line:

"Een zorgaanbieder kan een beschikking als bedoeld in het eerste lid, onderdeel a, niet eerder aanvragen dan in de tiende maand van het derde jaar volgende op de dag waarop hij voor de eerste keer ten gevolge van een investering eigen vermogen verwerft"

A care provider can only ask for a positive ruling from the ministry, three years after first acquiring equity from an investor. Although this requires the first investor to stay put for at least three years, a second investor in the same care provider can immediately distribute profits if the first investor has already gone through the waiting period; therefore the protection intended from short term asset stripping aspirations is not successful. Furthermore the Slotervaart hospital can request to be allowed profit distribution immediately.

A second weakness is the fact that the legislation does not seem to force existing 'leaking of funds' methods (Subcontracting to a limited company housing operations 4.2.4, Mezzanine 3.2.2/ 5.2.1) into the sphere of this law. An investor can still distribute profits without adhering to this law. Exemption from BTW (added value tax) may come under pressure because of for profit aims, for some cases (elaborated on in 7.1.2). These taxation issues and fear of future prohibition could, but do not have to, compel a transfer of the WTZi license to a limited company for direct profit distribution after three years.

A third example of uncertainty because of public interests is the use by government of ex post macro caps. Here ex post macro caps means that when a set budget for a medical activity, profession or other grouping is overspend at the end of the year, government steps in and reclaims money from the care providers. Recent years have seen various sorts, for instance on specialist remuneration and on hospital budgets.

Ex post macro caps

Interview results:

- The threat of ex post cuts in budget to be accommodated by all care providers is an important source of uncertainty for expected return

These government measures lack discrimination and have been used unreliably. This measure relatively rewards the institutions that have overspent the most. An investor cannot calculate return over longer terms reliably because of this risk.

The fourth and final example of public value driven uncertainty provided here is DBC – reality fit. This is linked to the dynamics of over and under compensation (4.2.4) and the resulting incentives. These workings were confirmed in the interviews, two examples:

Interview results:

DBC – real costs fit

- Academic hospitals are supposed to focus on complex activities, but often need their other activities positive financial results to cover for lack of funding.
- Profitability of products in the A segment differs and is subject to change.

Prices set drive behaviour and therefore prices should be set so that the right behaviour is shown by the right actor at the right time. A fixed price received for a DBC can be high this year, but can be low in two years if it is branded as overcompensated. This problem will exist less and less now that prices are becoming more and more negotiable with the increase of B segment share. The benefits of strategic behaviour diminish in this way.

Conclusion

Because of the unclear implementation of public interests, aligning with public interests is costly for medical actors. Public value driven uncertainties such as the four examples provided have played an important part in deterring potential investors in Dutch medical specialist care.

6.4.2 Critical insurers

Within the legislative boundaries set by the ministry, insurance companies need to align private actions in the medical landscape with the public interest (i.e. 4.3.1). The respondents generally concurred that the insurance company are fulfilling their intended role increasingly and that it is likely that their selectivity will strongly increase in the near future.

Public value champion

Interview results:

- Insurance companies are intended to be directing the medical care landscape. Government has delegated the pursuance of their goals of promoting quality, accessibility and affordability to them.
- Insurers have shown little real commitment so far as they are not exposed to the risks of their funding choices. With the growth of the B segment and the disappearance of ex post equalization, this is likely to change.
- Insurance companies are picking up on their new role and are increasingly demanding. They will be more and more selective, contracting only care providers who can make high quality deliverance transparent.
- Insurance companies are starting to develop new ways to test quality, accessibility and affordability. For instance with minimum volume standards, patient security monitoring, higher data demands and research into practice variation.

The aim for more selective procurement means operationalization of public values. Last mentioned interview result names a few methods. For example practice variation is brought to new levels of detail; the insurer corrects care demand in regions for demographics and can thus see were overproduction is occurring. Such methods increasingly empower the insurers to procure selectively by reducing information asymmetry between insurer and care provider.

Translated to the private equity investor this means that it is in his best interest to have his investment object perform well on quality, affordability and accessibility and especially to be able to make this performance transparent. For instance public value effects of the rise of ZBC's are not undisputed.

ZBC advent public value effect disputed

Interview results:

- An insurer expects a ZBC in a region to force prices down and quality up. However in reality a lot of their efficiency gains go the owners and care provision does not shift from hospital to ZBC but increases in the region.
- ZBC presence is a likely explaining factor for overproduction in a certain region.

In reaction to this, insurers demand more transparent, strong health improvement (instead of production) and clearly lower costs. ZBC's and other care providers need to focus on proving their public value (7.3.1).

Summary and next steps

Summarizing this chapter it can be stated that medical care investment is an opportunity which has not materialized due to high agency costs. There are six most important obstacles or sources of agency costs for private equity investment in Dutch medical care, related to interest divergence and/or information asymmetry. Dealing with these cost factors is the subject of the next chapter.

7 Strategies for reducing agency costs

The interviews and cases provided various angles for reducing agency costs driven by the six obstacles discussed in chapter seven. The strategies for addressing the obstacles can be divided in three categories, linked to a phase in the investment process as described in 3.2. In the fundraising phase and start of the investment phase, added value concept and asset selection provide options for reducing agency costs. Further in the investment phase, governance is configured. Finally the investor contributes to the adding and realizing of value.

7.1 Added value concept and asset selection

As described in chapter three, choosing a specific asset type and approach for adding value and learning to excel at it is crucial for private equity investment success (7.1.1). The interviews and cases confirmed the assumption that the agency costs per asset type and added value concept differ. When entering the investment phase, specific asset and specialism(s) will also be selected (7.1.2).

7.1.1 Asset type and added value concept

Both asset selection and added value concept are crucial for aligning interests and minimizing information asymmetry. The private equity investment approaches were discussed in the interviews and evaluated on their feasibility in the current medical landscape. The respondents were unanimous in their consent concerning the necessity to align investment approach with the developments in Dutch medical specialist care.

Alignment with developments required

Interview results:

- Medical care investment must be in line with the developments in the landscape as specifically described in 4.3.

The proposition that the developments scope out certain asset – added value concept combinations was confirmed. This leads to the options in table 7.1 and related agency cost levels.

Table 7-1: Agency costs for the different investment approaches and asset types

Agency costs for added value – asset combinations

Investment approach	Possible asset types	Added value concept	Agency costs	
			Interest divergence	Information asymmetry
Venture	No existing asset	Starting a ZBC (chain)	Relatively aligned within the institution, high risk of friction with other care providers and insurers, unclear public value effect	Lowest, because of simple organization

Growth	ZBC/ focus clinic	Expansion (organic/ acquisitions)	Relatively aligned within the institution, risk of friction with other care providers and insurers, unclear public value effect	Low, because of simple organization
Buyout	ZBC	Leverage, ownership structure, operational improvements	Unclear, aligned for operational improvements? Leverage does not fit public interests	Low, because of simple organization
	Hospital	Ownership structure, operational improvements	Unclear, aligned for operational improvements? Leverage not possible	High, complex organization
Turnaround	Hospital	Operational improvement; portfolio selection	Aligned, except doubt investor benefit, risk of local divergence in terms of public value	High, complex organization
Rationalization	Hospital	Portfolio selection, termination of activities and alternative asset allocation	Internal divergence risk depending on which activities are terminated, risk of local divergence in terms of public value	High, complex organization

In general the venture and growth options have the benefit of the possibility of substantial quality and efficiency improvement. This provides considerable new value to be distributed amongst the actors. However real venture approaches have not been undertaken.

Case study results:

- The private equity investors currently active in Dutch medical care have used growth strategies on ZBC chains. Choosing those with capable management teams in need of equity and knowledge for expansion.

Interview results:

- The parties currently involved in private equity investment in medical care are specialized in buy-and-build (growth) strategies. They do not take position in the board of directors and are not actively involved enough for a venture approach with the enormous costs and risks of licensing, contracting with insurance and acquiring initial network of care providers.

Venture and growth capital

As discussed in 6.4.2 the public value effects of ZBC's are uncertain, but it appears that it is possible to grow a ZBC with alignment of interests and resulting return and positive public value effect. Making public value benefits transparent will remove the risk of interest divergence with respect to insurers. Private equity investors often focus on a specific value added model, therefore it is logical that the parties currently active in medical care have not adopted approaches other than their signature approach. It seems likely that a venture approach can also work, however an even more hands-on approach with higher returns for the high risks will be fitting. The main issues will be licensing, insurer contracting and assuring referrals and proper follow-up from incumbents.

Buyout

Buyout models in terms of ownership change do not seem to have a negative or positive effect of their own account. It will depend on the further strategy. Applying leverage for value creation is unlikely to work for medical care investment, since hospitals are only 15% equity financed on average (4.2.4), applying even more leverage will not be accepted by debt providers. Some leverage maybe possible for ZBC's. Whether a buyout approach will work in medical care remains unproven, will depend on the further strategy, but seems unfeasible from both a financial as a public value point of view. As medical care institutions are not in a mature state (2.1) because of the developments in the landscape, the approach is less likely to be successful.

Just as the growth in the number of ZBC's makes venture and growth feasible investment options, so is investing in a hospital with a turnaround or rationalization approach in line with developments. In the future landscape of medical care there is no room for the current general hospital, meaning that most of these will have to start making portfolio choices. Especially in a turnaround situation, the distress risks to all actors works to align interests.

Case study results:

- Investors were able to take over the Slotervaart and IJsselmeer hospitals and move all actors towards improvement of the financial and professional situation.
- Foreign dedicated hospital operators are acquiring hospitals in distress and turning them into profitable entities.

Turnaround and rationalization

Interview results:

- A rationalization approach will become more and more feasible as the need for change will be more widely accepted in and around the medical world. Although the benefits for the system are clear, rationalization now leads to blocking local resistance.

This makes turnaround the most interesting investment approach from an alignment point of view. The only crucial actor which may not be satisfied is the investor. The cases show little return so far in the Netherlands, but potential for realizing some return in due time. In other countries, investors are turning profit on hospitals and these investors include private equity houses. As learning is important these investors participate in several hospitals. The environment is likely to be more suitable for rationalization investment in due time.

Certain asset type selection criteria are not specific for medical investment or private equity added value approaches, but derive from the private equity investment model.

Interview results:

- Repeatability of an investment concept and minimal capital requirements are important for a private equity investor to realize sufficient return.
- As the capital requirements for starting a small ZBC are low, this can be done be every specialist, which will soon lead to lower profit margins.

Additional conditions for investing

Case study results:

- Private equity investors in medical care have selected ZBC's of the 'large type' (5.2.2) as these provide sufficient capital placement. Then to maximize utilization of the chirurgical facilities, multiple also unrelated specialisms are housed, which also creates less exposure to (regulatory) risks.

Minimal capital requirements are conditions for investing for investors were applicable, repeatability and differentiation contribute to the success likelihood of medical care investment.

PRACTICAL EXAMPLES	
To show the working of the strategies for reducing agency costs in practice, two example cases are presented. These examples are centred on the two main options for successful private equity investment in Dutch medical care: ZBC venture/ growth and Hospital turnaround.	
ZBC venture/growth	Hospital turnaround
A ZBC growth strategy may be based on an earlier venture of specialists'', because they felt that many aspects of their work at a general hospital could be done better, while they were unable to change the conservative setting from within. These clinics have often become successful with their focussed strategy. Although the clinic(s) can have become profitable, funds for rapid expansion are probably missing. Apart from that the owner specialists lack knowledge on financial matters and could increase the business effectiveness of operations even more with help. This is where a private equity house steps in. After extensive negotiation and building trust, a strategy for growth to other parts of the Netherlands is agreed on by the specialist owners and fund managers of the private equity house. Such clinics are mostly operating as one limited under a foundation with the WTZi license and the private equity house then takes a minority or majority share in the limited entity. The foundation leadership may remain the same with owner specialists and for instance colleagues from nearby hospitals as board.	A typical Dutch hospital in an average size town will have moved towards the goal of providing all medical care for the adherent population, in the last decades. This means many small groups of specialists. However recently competition from nearby hospitals has increased, and smaller hospitals struggle to meet the volume standards newly set for quality for each specialism and insurers may have stopped procuring some of the services. This dwindling situation then translates to the financial performance of the hospital. Insurers are minimizing prepayment and banks are unwilling to lend, while the municipality refuses to step in and provide subordinated debt as they used to. The deteriorating service and financial troubles may prompt a local family office to invest in the hospital. To save the hospital but also to turn a profit in due time. As the investment is seen as an opportunity for repayment by creditors, they will be willing to allow the investor to shift all assets, equity and debt to a limited under the foundation with the WTZi license and take complete ownership and start with a turnaround strategy to add value to the hospital.

How does this work in practice?

Asset selection and added value concept determines the agency cost level and are therefore part of a successful investment strategy. This concept selection is both monitoring and bonding, as both principal and agent are equally committed to the chosen approach. The ZBC and Turnaround approaches are most feasible and can be combined by participation in ZBC spin-offs after a hospital turnaround. The selected approach is formalized in the contract with the limited partners. Then it is up to the private equity house to select specific assets fitting the chosen asset type and added value concept.

Conclusions

7.1.2 Specific asset choice

For reducing organizational and medical complexity, selecting simple institutions and specialisms is an obvious approach. Because complexity drives information asymmetry, selecting low complexity reduces agency costs. This is clearly part of the strategy of ZBC owners.

Selecting simple assets

Case study results:

- Private equity investors have mainly invested in ZBC's, focusing on a couple of specialisms.

Interview results:

- Focus for investment is on high volume, simple and predictable second line care. Governance complexity is then relatively low and such care fits the business effectiveness added value approaches, both reasons lead to higher potential added value.

- Unpredictable top referral care is a strain on hospital personnel and infrastructure, which also greatly diminishes the institutions ability to effectively provide low complexity, high volume care. General hospitals are therefore inherently less efficient than ZBC's for low complexity, high volume care.

Information asymmetry is in this way linked to the complexity of the organization and operations and can be significantly lower when evading complex care. The choices of current private equity investors and other ZBC owners clearly exemplify this, although they do opt for ' large ZBC types' which are a little less simple than the ' small type' (5.2.2). This will mainly be because of the minimum capital requirements that these specific players operate with.

When setting up a new institution with high focus on certain parts of hospital activity, an investor is more or less pulling this activity out of the hospitals.

Interview results:

- Specialisms differ in their connectedness to the general hospital institution. Those specialisms that were last to join the hospital are often easiest to remove.
- Pooling supporting services from hospitals into larger more efficient entities is an opportunity for investors as the market is highly fragmented.
- Third line supporting services are difficult to extract from hospital, because of their cash cow status and because they are seen as a critical safety function.

Selecting simple specialisms

Simpler services that are relatively non-core medical activities are more attractive for investors from an information asymmetry point of view. However the same alignment issues exist, such as the need to take incumbent interests into account.

Selecting non adverse institutions

In 6.3.1 was discussed that medical institutions are mostly adverse to for profit involvement and handing over control to an investor. Several reasons were provided which makes the management of the institution need and accept equity investors, which reduces interest divergence. Interests of the investor and management will be more aligned when management needs capital for growth ambitions, needs special knowledge and network access, fear competition or are under heavy pressure from banks and insurers. These conditions are most prevalent in a venture, growth or turnaround situation.

Financial system considerations

Some specialisms' are better remunerated than others, as DBC reflect actual costs to a certain degree (4.2.4). As the medical specialists are relatively focussed on quality, a trade-off between quality and costs will result in interest divergence between the specialists and the investors. Therefore choosing specialisms that are well funded will result in better alignment of interests within the institution. Also for this case (as for the growth and venture investment model) it can be stated that as there is more value and therefore profit to divide, it is easier to satisfy all actors. Another financial technicality is the issue of BTW exemption for non-profit care under current legislation (7.1.2). BTW is exempted for 'medical services as provided by medical specialists' through legislation[10]. This exemption is not linked to profit or non-profit aim. There is also an exemption for nursing and care in an institution, including provision of medicines, bandages and food and drink, under other legislation[11].

[10] Besluit van 28 februari 2008, nr. CPP2008/78M

[11] 1 December 2011 actualization of Besluit van 23 Augustus 2006, nr. CPP2006/1622M

This second exemption category is related to non-profit aims. Therefore a for profit organization with other than day treatment services may encounter difficulty falling under the exemption. When using the 'operations in a limited under an entity with the WTZi license' construction, return will be higher when the care provided falls under BTW exempted categories. This will often, but not always, correlate with simplicity of care, as treatment without hospitalization will generally be less complex.

How does this work in practice?

PRACTICAL EXAMPLES	
ZBC venture/growth	Hospital turnaround
ZBC clinics are often operating a selection of specific treatments of varying complexity, but always high volume and predictable in terms of planning. This matches certain specialisms, such as dermatology, plastic surgery, orthopaedic treatment and radiology. Such care has high potential for added value compared to the operations in a general hospital. Assets have low organizational complexity as such clinics focus on a certain small set of DBC's and have only a small group of personnel. The DBC's and locations chosen are those that have sufficient potential for volume in light of competitions performance and adherence, for which quality and quality of other care steps can be assured given the specialists knowledge and network and are remunerated well compared to actual costs incurred. It may turn out that establishing branches in some areas looks promising, while it is more difficult in others, as nearby hospitals have improved their service delivery to higher levels in the last years and insurers will not regard contracting a new ZBC as beneficial.	Participating in a general hospital is not an example of selecting simple assets and specialisms, but of acquiring a stake in a very complex asset with all sorts of specialisms. However, charting the strong and weak parts in the hospital, relative to competitors, will be necessary for the investor to anticipate portfolio selection in the added value phase. As choosing to not focus on a specialism is likely to lead to an internal struggle and investor adversity, making sure that the investment object has a sufficient base of specialisms with high adherence and quality compared to competitors, low investor adversity, will be considered beneficial by insurers and debt providers and which are well remunerated, is a necessity for later success. The same as with the ZBC scenario, strategic selection thus addresses the 'no rules of the game', managerial interdependencies, investor adverse institutions and inability to govern the operational core obstacles, for the investor attempting a hospital turnaround added value strategy.

Conclusion on selection

Selecting an asset type, added value concept and specific asset greatly and portfolio selection for turnaround influences both the level of information asymmetry and the alignment of interests. An investor should take a venture or growth approach with a ZBC or turnaround approach with a hospital and select assets to maximize simplicity, repeatability, non-adversity and financial aspects of the DBC's. Capital requirements must also be met. This asset selection is also both monitoring and bonding, as both principal and agent are equally committed to the chosen approach. Even within his own specialism, the specialist may commit to a selection of DBC's for agency cost reduction.

7.2 Configuring governance

After the asset has been selected and negotiations between specialists, managers, investors, debt providers and insurers have passed an initial phase, the governance of the institution needs to be configured and formalized to realize the added value strategy of the investor. First is discussed how the investor can realize control and eventual return (7.2.1). Then we discuss the position of the medical specialists (7.2.2). The next step is looking at how incumbent interests can be managed (7.2.3). Finally options for separation of public and private funds are presented (7.2.4).

7.2.1 Investor return and control

In spite of the 'how to buy a hospital problem' and the uncertain lifting of the ban on profit distribution, an investor needs to establish control over the asset to add value.

The investor also needs to find a way to realize return to realize the value of the investment. Figure 7.1 shows a possible organizational structure of a large hospital to exemplify how equity ownership and/or control can be created.

Ownership and control in the organizational structure

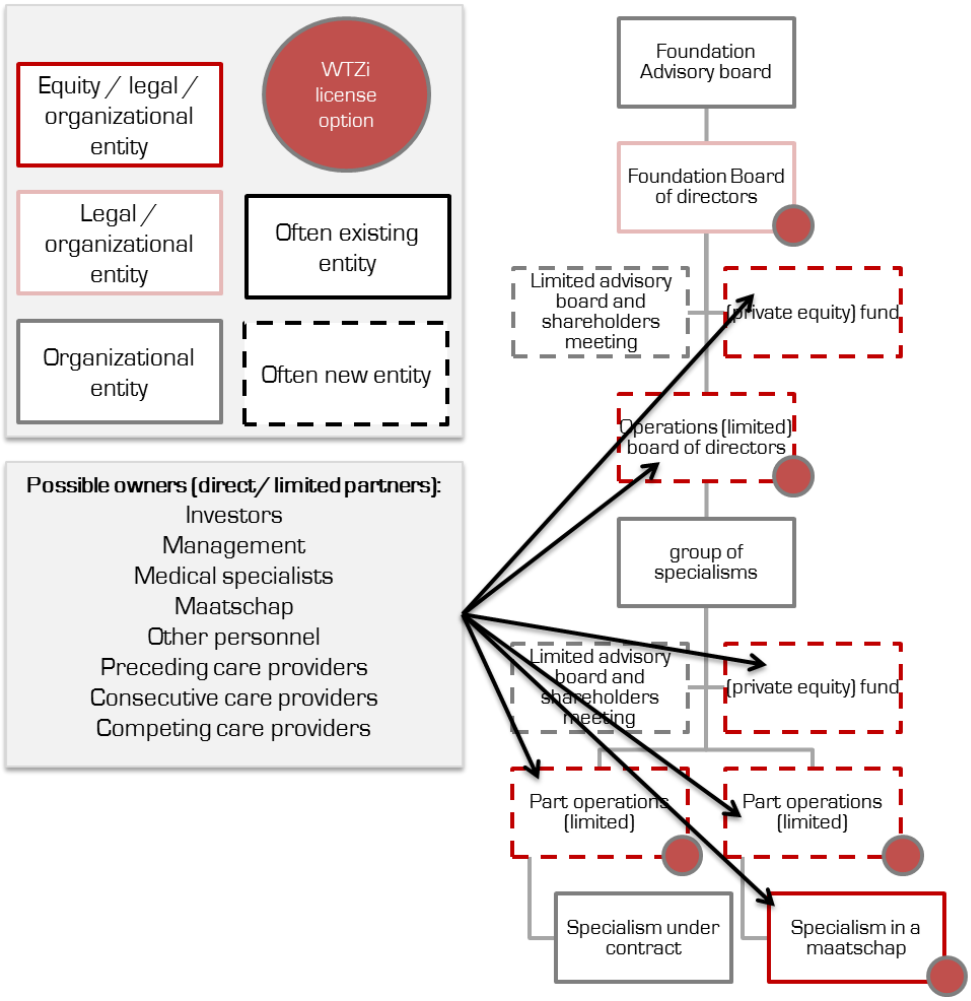


Figure 7-1: Ownership and other control options in the institutional structure

This overview entails various options. Take for instance a current hospital consisting of a foundation with two groups of specialisms with each three maatschappen. To enable control the investor will need to create equity and to enable profit distribution (under current legislation), the WTZi license has to be in another legal entity than were profit is deducted.
So the investor can create a limited just below the foundation, housing the maatschappen, or a limited for (groups of) specialisms housing the maatschappen or can participate directly in a maatschap.

Great variety of options

Case study/ Interview results:

- A foundation can be turned into a limited housing the operations (Slotervaart), can subcontract to a limited housing the operations (as in most ZBC's) and parts of the operations can also be separated in a limited (local branches of some ZBC's, research departments) or a maatschap.

The parts with equity can be owned directly and indirectly as limited partners, by various types of owners. For instance a limited housing the operations could be owned by the maatschappen in which limited partners of the private equity fund participate.

The foundation board of directors is the most feasible control option without equity.

When ownership and/or control are established, value can be added in the described ways (i.e. 5.2; 6.1.2). Then return has to be realized for the investor.

Interview results:

- The 'limited under an entity with the WTZi license' construction now used for ZBC's can also be applied to a hospital, however in some cases it leads to BTW (Added value tax) problems. A Maatschap can distribute profits to its partners without problem and although income is capped, costs can be allocated to the institution to increase profit margin.

Residual earnings

The how to buy a hospital problem will exist when taking over an existing entity, except for buying the Slotervaart hospital or participating in a maatschap. In these two instances equity is not statute bound. When setting up a new limited (or other legal form except for a foundation) the same applies. The entity with the WTZi registration cannot distribute profits under current legislation and therefore can only reward an investor (then mezzanine debt provider) with interest. An entity housing operations and invoicing to the entity with the WTZi registration can distribute profits, but may run into tax problems (7.1.2).

How does this work in practice?

PRACTICAL EXAMPLES	
ZBC venture/growth	Hospital turnaround
Current ZBC owners participate in the limited below a foundation holding the WTZi license. Investors' share relative to for instance founder specialists or nearby hospitals will often grow with the growth strategy, as they are able to fulfil the need for additional capital for each expansion step. Furthermore the trust in the investor of the specialists may grow, making them less adverse to majority for profit shareholding. Foundation board membership is not logical for an investor, as this does not provide right to residual earnings. Board membership can provide earnings through for instance a mezzanine construction. A ZBC could also house a maatschap and an investor could participate in such a maatschap, which may be an interesting setup to consider, but which has not been tried so far. Choosing how the investor establishes ownership, control and return remains a balancing act, trading off investor, specialist and incumbent interests in line with the local situation.	The complex organization of a hospital provides various options for establishing investor ownership, control and earnings potential. Investor ownership can be established in a (new except for at Slotervaart) limited housing operations or a maatschap. Under current legislation, with the ban on direct profit distribution, it will be necessary to adopt a limited under a foundation with the license, mezzanine, or participation in maatschappen construction for residual earnings. Out of both a profit distribution and an alignment with the operational core perspective, it may be interesting to have the investor participate in all maatschappen, which then own the hospital limited. Taking over the board of the foundation and paying the investors a fixed interest on a loan, with additional bonus malus conditions linked to performance may also be interesting for an investor. The ability of the owner to add value and realize value is determined by this configuration.

Conclusions on the investors position

There are various options for ownership/control and return realization. These can be fine-tuned to optimize interest alignment. Equity existence and type, profit distribution allowance, caps and possibilities of internal cost allocation are important considerations for choosing a structure for the investment object. The investor and the various other actors can be incorporated in the institutional structure and this will divide ownership, control and benefits amongst them. The investor thus incurs monitoring costs enabling reduction of residual loss or in other words: maximization of return.

7.2.2 Internal alignment and specialist managers

Most medical specialists, self-employed, have a unique position and this is an obstacle for successful investment (6.2.1). Interest alignment between the specialists of a subpart of the institution, are not aligned with those of management as representing the entire institution. Most medical specialists operate in a maatschap; figure 7.2 shows their position in terms of benefits versus risks and the directions of improvement (their current position was discussed in 6.2.1).

Unique position and possible shifts

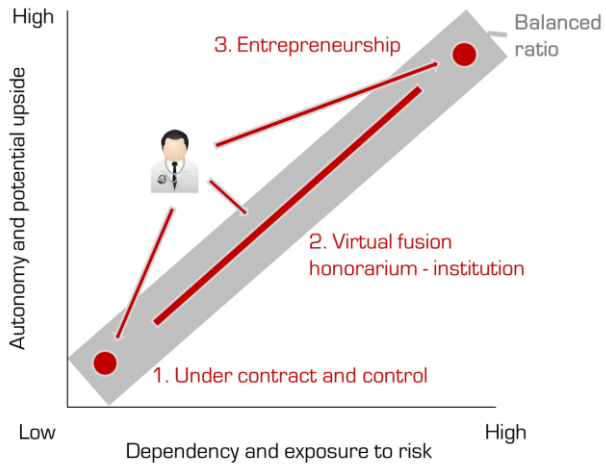


Figure 7-2: Medical specialist positioning

Assuming a situation where benefits and risks know a logical balance as it takes more benefit to transfer more risk to the agent, the medical specialists need to be moved towards a more balanced ratio. This leaves three basic options.

Interview results:

- Medical specialists can be put on the payroll, become full owner or a virtual fusion between honorarium and institution financing can provide options in between.
- In order to realize the added value strategy, the medical specialists and management must be put under control, or their interest must be aligned through ownership and incentives.

A specialist on the payroll is less exposed to risk than a self-employed specialist and in return has less autonomy and benefits. On the contrary, a specialist with full ownership has more risk exposure than in a maatschap, but can also have more income than the honorarium caps allow because of profit distribution. Contract service and full ownership do not exclude each other and can be mixed to enable a combination of the control over specialists associated with contract service and the alignment of interest reached by ownership. Alignment of interest can also be achieved with direct incentives such as bonus/ malus systems or non-pecuniary incentives based on scientific or other professional motivation. The opinions and experiences of the respondents concerning ownership versus contract differed:

Interview results:

Moving towards new positions

- An investor will have to use contract service and more active involvement in line with preferences of the specialists, management and existing agreements.
- Because specialists have all information and power concerning operations, it is always necessary to involve them in the organization, not only of their part but also of the entire institution. However their informational advantage ends outside their group of specialisms.
- Ownership of people from the medical scene brings along their culture and prevents effective implementation of improvement strategies in most cases.
- Specialist self-employment has a dubious effect on a macro level (in terms of public value, overproduction).

Case study results:

- The Slotervaart and MC Groep hospitals have proceeded to remove specialist self-employment. Most ZBC's also have primarily payroll specialist, but also have some specialists as owner, often the founder(s).
- The MC Groep is using outcome based contracting to link the performance of specialists to the performance of larger parts of the hospital.

The most common reaction to the undesired specialist position has been to put them under contract. However, an organizational setup with al specialists on the payroll and without additional incentives does not address the reality of autonomous and informational supreme groups that will only optimize their subpart, leading to high agency costs for the institution and the public. Providing (part) ownership to key specialists and using virtual fusion to remove the barriers between honorarium and institutional performance is a potent strategy for agency cost reduction. Self-employment in the current form is only 'dubious on a macro level' because the maatschappen are being rewarded for production and not for health improvement or efficiency gains for the whole institution.

The information asymmetry mainly exists because medical care is highly specialized and therefore non-specialists cannot understand what the operations entail. Involving specialists in management is therefore a logical solution.

Case study results:

Specialist involvement is needed

- Dutch ZBC's are often owned and directed by specialist founders. German dedicated hospital operators have specialist managers up to board level. In general specialist involvement appears as a successful approach for reducing agency costs.

Interview results:

- Because specialists have all information and power concerning operations, it is always necessary to involve them in the organization, not only of their part but also of the entire institution. However their informational advantage ends outside their group of specialisms.

Table 7-2: Specialist involvement options

Organizational level	Type of involvement
Operational	Management in line
	Consulting
Care unit	Ownership
	Management in line
	Consulting
Group of care units	Ownership
	Management in line
	former specialist in line
	Consulting
Strategic	Ownership
	Management in line
	Former specialist in line
	Consulting
Level of authority	
Subject of authority	

Involvement trade-off

Combining the specialist involvement methods in current Dutch healthcare (4.2.2), with the case study and interview results concerning information asymmetry and interest alignment (7.1.2), leads to the options in table 7.2. The costs incurred are highest for the involvement type highest in the table per level. Specialist ownership greatly reduces agency costs as the separation between ownership and control diminishes, but comes at the cost of sharing profit with the specialist. Consulting the specialist comes at low costs, but involvement will depend on the issue and the specialist can still choose not to apply his information for management, thus leading to higher remaining residual loss. As the informational advantage of a specialist diminishes with the height of the organizational level, residual loss reduction will become lower. On the contrary bonding costs will become higher. Therefore an optimum exists and this is also an argument for simple asset selection. The optimum will be dependent on local circumstances.

How does this work in practice?

PRACTICAL EXAMPLES	
ZBC venture/growth	Hospital turnaround
This strategy deals with the investor adverse institutions and inability to govern the operational core issues. How this is done by ZBC's is fairly simple, in the first place most are (co-)owned by specialist founders. This removes the principal – agent divide and thus information asymmetry and interest divergence. However it is not feasible to have all specialists in a clinic owning a significant part, as this will contradict investor ownership and residual earnings (except for when the investor relies on other constructions, not related to ownership for return). Therefore other specialists are often under fixed pay contract service or being paid per DBC produced. Note that last mentioned does not serve the public value of affordability well. The operational core agency costs will be much lower than in the hospital situation from the start, as information asymmetry is lower because of organizational simplicity and medical focus.	The current form of the maatschap is undesirable as it leads to divergence of the interests of the specialists and the whole hospitals' management. Pressuring the specialists towards contract service however, does not recognize the high information asymmetry and the fact that real control is therefore unfeasible. As you cannot control the specialists, make sure that their interests are the same. Full specialist ownership is the other direction, but then specialists will have to except higher risks, also for hospital parts outside of their group of specialism, retaining information asymmetry. The solution will therefore often be a fusion between honorarium and other costs parts for self-employed specialists and a system of incentive rewards for contracted specialists. Dual management is in addition the least costly concept for addressing information asymmetry for the investor, but requires specialist involvement which can be seen as bonding costs.

Conclusions on the specialists' position

The specialists' position in term of benefits versus risk and organizational involvement entail a variety of both bonding and monitoring mechanisms. As both putting the specialists under contract and giving them full ownership is costly in terms of monitoring in the first case and in terms of bonding in the latter, the virtual fusion and involvement approaches will probably be most applicable in most cases. Other professional bureaucracies such as accountancy, law or consultancy firms are often owned by the more senior specialists. This will remain a matter of adapting the ownership, control and benefits of specialists to the local situation, in balance with the position of the investor (and incumbents, 7.2.3).

7.2.3 Incumbent networking

It was established that providing a whole and high quality care process for the patient from first line to top referral, is a requirement for successful care provision (6.2.2). Therefore the interests of nearby care providers and those of the own institution must be aligned, which will be troubling as the general hospitals needed for complementary services will often also offer competing services. Cases and interviews provided two main approaches to solve this problem: participation by other institutions and service level agreements.

Networking tools for different dependencies

Case study results:

- ZBC's have relevant institutions participate as owners and individuals from those institutions as owner or for instance as member of the supervisory board.

Interview results:

- Participation of key care providers for the total care process of your patient is a strong tool for aligning interests.
- Ownership of people from the medical scene brings along their culture and prevents effective implementation of improvement strategies in most cases.

Mentioned service level agreement is a contract between care providers. For example a new ZBC can negotiate terms with a nearby hospital about utilization of the same specialists, conditions and quality for referral and follow-up care and financial compensation were applicable in such cases. Depending on the dependencies between the care providers at hand, ownership, other control (such as supervisory board membership) and service agreements can be used to align the interests of the institutions and/or their subparts (table 7.3).

Table 7-3: Actor dependencies and corresponding networking tools

Dependency	Networking tools
Quantity referrals	Ownership, agreement about referral %
Quality referrals	Ownership, other control, agreement about referral procedure
Quality follow-up	Ownership, other control, agreement about follow-up and compensation
Market share loss	Ownership, agreement about personnel exchange
Loss of personnel	Ownership, agreement about personnel exchange and compensation
Diminishing margins	Ownership
Scientific and training	Other control, agreement about research, agreement about training

How does this work in practice?

PRACTICAL EXAMPLES	
ZBC venture/growth	Hospital turnaround
How to deal with incumbent opposition and the need for cooperation is of crucial importance for a ZBC branch in a new area. First line referrals must be ensured, however general practitioners do not only supply hospitals, but also rely on them for supporting services. Specialist founders of ZBC's have to personally convince general practitioners of their added value in terms of quality and affordability. Rewarding general practitioners for referrals is dangerous from a public value perspective as it will provide incentive for unnecessary referrals. Follow up for more complex patient needs will be even more difficult to ensure in some cases. Especially general hospitals will have profited from the activities now performed in the ZBC and see their benefits diminish. Ownership is a tool for binding such a hospital with financial interests for opposition. An academic hospital might be more interested in quality of referrals, training of their personnel of data for research. These needs can be served with non-financial deals, such as board membership and service agreements. A specialist may work 2 days in a ZBC next to his function in a hospital; academic trainees may obtain low complex experience in a ZBC; room for exchanging benefits is ample.	Incumbent networking will not be as troubling in a hospital turnaround setting as incumbent opposition is less threatening; the investment object is an incumbent. Only portfolio selection/ regional task division remains as important, in the added value phase.

Conclusions on incumbent networking

Note that vertical integration in this way does create risks for public value. For instance a specialist working in both a second line and the associated third line institution may have incentive to refer more. Nonetheless these networking tools are the solution to the problem of hostile incumbents when setting up or expanding medical activities in a region. The benefits for quality and therefore long term income can be expected to often outweigh the bonding costs incurred by the specialists and the costs of monitoring the agreements execution. This is why collaboration tactics such as in table 7.3 are being used more and more in practice by care providers.

7.2.4 Public private separation

Transparency concerning public and private funding within the organization helps providing a clear public value effect estimation of the institution. The problem of how to buy a hospital and the different types of hospital equity (6.4.1) can also be dealt with in this way in the case of positive equity.

Separation already exists

Interview results:

- Hospitals currently separate more commercial activities in distinct legal entities. For instance using a limited to house part of research that is sponsored or paid for by pharmaceutical companies.
- How to separate 'public' and private capital is an important issue for an investor looking at buying a hospital.

To increase transparency

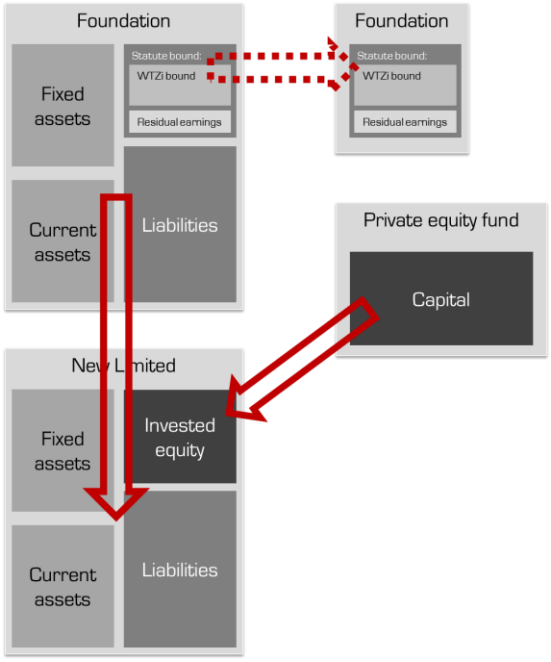


Figure 7-3: Separating public equity

Clearly separating the bound equity from other equity reduces the information asymmetry between the public and the institution (management/ investor). The simplest way is shown in figure 7.3. In this example the public equity can remain in the foundation, bound to its original goal. The foundation can for instance be headed by specialists applying the fund for medical research fitting the foundational goals set out in the statutes. The problem that most of the actual value of the institution remains inactivated although it was 'build up' based on public funds remains. The hospital board could demand an extra contribution at the sale, or an insurer who has done enough forward payments may have that power. The valuation of the inactivated public assets is likely to remain vague to an extent that compensating for this seems unviable, except for a 'market' situation, were multiple buyers exist and enable sellers to demand compensation of public value.

How does this work in practice?

PRACTICAL EXAMPLES	
ZBC venture/growth	Hospital turnaround
This is not relevant for an entity which has almost no public past.	The investor minimizes exposure to the uncertainties concerning public values when buying a hospital, by clearly separating the public equity. This can for instance mean transferring assets and debt to a new entity. The assets bound to the foundational goals by law are only the activated assets;

however the large value of inactivated assets may also need to be compensated. There is currently no mechanism arranging this, except for perhaps an insurer demanding such compensation in his position as key creditor. Determining how the equity set aside is used is also important, it will be most beneficial to the investor when the equity is used in relation to the hospital, for instance to fund research which appears otherwise not economically viable.

Conclusions on public private separation

If public equity remains within the same institution as the invested equity, the non-transparent nature of hospital cost allocation is likely to make tracking of the spending troubling. Public-private equity separation does not completely solve the issue discussed, but provides a relatively transparent option, with low bonding costs to incur.

7.3 Adding and realizing value

After the investment phase has been completed and governance is in place with minimized agency costs, adding value begins.
All respondents emphasized the importance of information systems for the effectiveness of the institution (7.3.1). Then is described briefly how the operations proceed (7.3.2).

7.3.1 Information systems

Information systems are an important tool for reducing information asymmetry in agency theory literature. It featured prominently in the interviews and case studies as a key part of the 'improvements' that for instance ZBC's have implemented compared to traditional hospital operation.

Better relations and management control

Case study results:

- Quality management systems, electronic patient files and linked management support and administration software drive performance of the ZBC's and privately owned hospitals in the Netherlands and abroad (5.2). Great quality and efficiency benefits can be realized through implementation of information systems.

How does this work in practice?

PRACTICAL EXAMPLES

The use of information systems is relatively similar for a ZBC venture/growth and a hospital turnaround situation. The system will add value by increasing quality management because of electronic patient documentation and detailed reports for each specialist and by increasing management information to enable more efficient operations, much alike the role of an Electronic Resource Planning system in most business. Agency costs in relation to four important actor categories are reduced. First the medical specialists, which as mentioned can be personally monitored, a unique situation for medical care. Secondly incumbents can be serviced, with proper information and better logistics. So the general practitioner can easily schedule an appointment for his patient and receives clear reports.

Conclusions on information systems

Collecting and sharing information greatly reduces agency costs as the interests of important actors are more visibly served. Quality management and electronic patient files enable practice variation monitoring, which can convince insurers of the positive effects of the investment object. Electronic patient files also allow for transparent collaboration with preceding and consecutive care providers. Management support systems enable management and investor to link medical with financial performance and to make trade-offs between quality and costs more visible. These information systems explain a substantial part of the competitive advantage of ZBC's.

7.3.2 This is where the work is done

Adding and realizing value remains

After the right asset is selected, participation is formalized through governance configuration and information systems are in place for transparency and high service, a lot of the actual improvement of operational processes still has to be started. The improvements for quality, service and efficiency (5.2; 6.2.2) are more likely to materialize after above strategies have been implemented, but this is not without doubt. Adding value, or portfolio management to the investor, will take several years, where the investor will be more or less involved in management of the institution, depending on its approach and developments. Finally the value realization through sale of the asset is highly crucial. Profit allowance would increase liquidity and exit value. Cases and interviews suggested that adding and realizing value is not the most differentiating phase for medical care investment, versus normal investment. However it is good to note that this is where the actual work is done.

7.4 Agency cost trade-offs

So which strategies address which obstacles; in other words how does an investor determine the amount of monitoring and bonding costs to incur to realize minimal agency costs (7.4.1)? Then to finalize the analysis, the feasibility of strategies and how developments can be expected to alter the circumstances are evaluated (7.4.2).

7.4.1 Obstacles versus strategies

Minimizing total agency costs

Combining the obstacles or drivers of agency costs from chapter six with the strategies for reducing agency costs in chapter seven, leads to a series of trade-offs. As chapter two explained, agency costs are the total of residual loss, monitoring and bonding costs. The obstacles drive residual loss, while the strategies reduce residual loss but are also costly to implement. Table 7.4 summarizes which obstacles are mainly (but not exclusively) targeted by the strategies.

Table 7-4: Which strategies deal with which obstacles

	Governance configuration					
	Asset type, added value concept and specific asset choice	Investor control and return	Internal alignment and specialist managers	Incumbent networking	Public private separation	Information systems
No rules of the game	■				■	
Critical insurers						■
Managerial interdependencies	■					
Investor adversity	■		■			
Incumbent opposition				■		■
Inability to govern the operational core	■		■			■

Selection trade-off

In the fundraising and start of the investment phase, the investor will have to maximize the return potential of various asset type, added value concept and specific asset choices and their positive effect on the four agency cost factors the strategy addresses. Costs of implementing the strategy 'selection' are likely to be low compared to the effects of obstacles and the return potential.

Formulated as an agency cost trade-off:

*Minimize agency costs: (Costs of implementing strategic selection) + Residual loss due to no rules of the game, managerial interdependencies, investor adversity and inability to govern the operational core obstacles * % reduction of residual loss due to strategic selection*

Because of the relatively low costs of strategic selection, it is likely that incurring these selection costs, aimed at maximizing simplicity, high volume, need of equity and knowledge, overfunding, BTW exemption, and repeatability, will lead to higher investor return and alignment with public values and key actors.

For governance configuration the investor first will determine leverage, as in all private equity investments. This will determine the importance of the debt provider relations. Then the equity can be divided amongst the investor, medical specialists (and managers) and incumbents. Apart from equity, the specialists and incumbents can also be committed with other control (such as a supervisory board position), service level agreements or other benefits. As mentioned, equity and associated return will be most costly to 'give away' for the investor, while non-financial control such as a supervisory board position will be least costly. A trade off surfaces between maximizing investor ownership and return versus dealing with the investor adversity, incumbent opposition and inability to govern the operational core obstacles:

Governance configuration trade-off

*Minimize agency costs: Costs of shifting ownership, benefits, control to specialists and management + Residual loss due to inability to govern the operational core and investor adversity * % reduction of residual loss due to shifting + Costs of shifting ownership, benefits, control to incumbents + Costs of service agreements + Residual loss due to incumbent opposition * % reduction of residual loss due to shifting * % reduction of residual loss due to service agreements*

Note that this configuration has a maximum amount of equity, control and benefits to distribute, while service agreements are not limited in that way. Even more than for strategic selection, the optimum will depend on the local situation.

A final trade off concerning the obstacles and strategies discussed remains for the adding value phase:

Operational trade-off

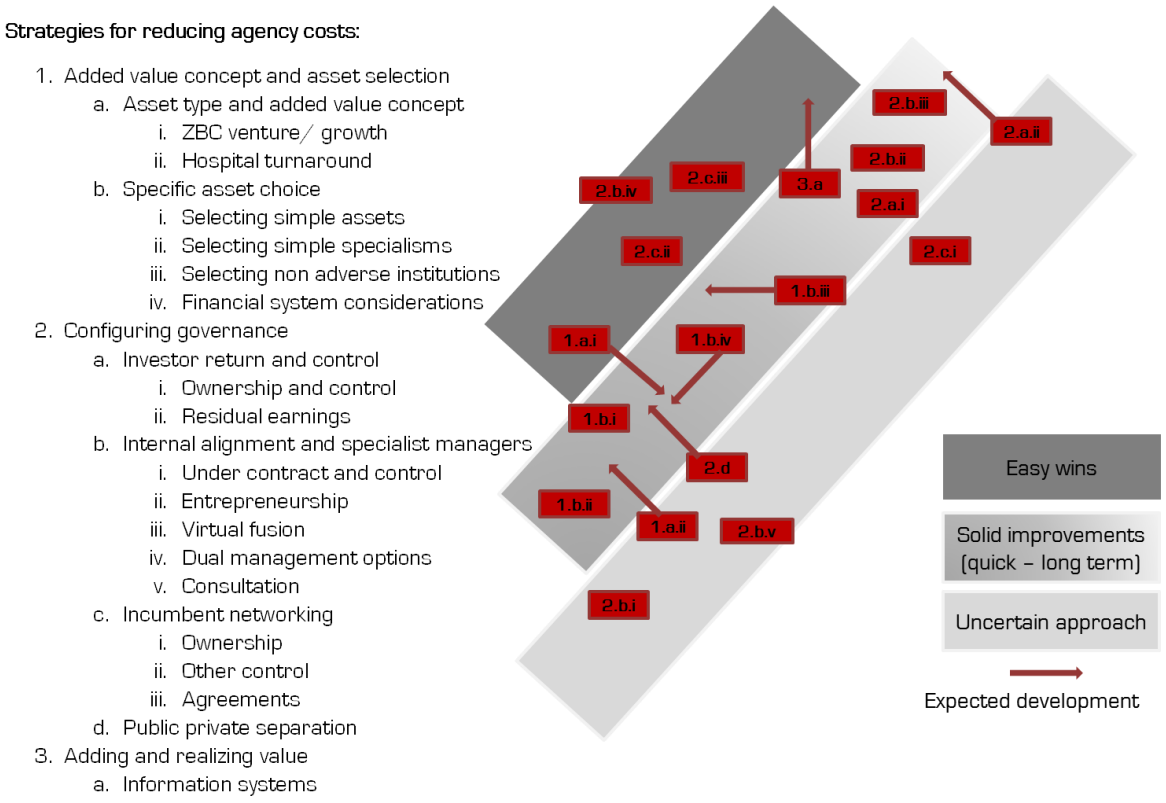
*Minimize agency costs: Costs of implementing information systems + Residual loss due to critical insurers and inability to govern the operational core * % reduction of residual loss due to information systems*

Although easily formulated, this strategy surfaced in all interviews and cases as a high potential improvement. Note that implementing also means adoption of the systems by every part of the organization, which will be costly.

7.4.2 Strategic outlook

Mentioned strategies can be summarized and evaluated based on feasibility, current and in the near future. Figure 7.4 shows this evaluation.

The strategies are given a position based on agency cost incurred, residual loss averted and the arrows indicate likely development directions for the near future, as in the coming years.



Strategic priorities

Figure 7-4: Strategy cost benefit expectations

Expected developments

The shift in effectiveness of hospital turnaround (1.a.ii) and selecting non adverse institutions (1.b.iii) are in line with the expected reduction of the investor adverse institutions obstacle. As pressure on medical management increases (6.2.2), institutions will be more open to investors and turning hospitals around including portfolio selection will be more accepted. When private investment in hospitals continues to increase, the public private separation (2.d) will be more effective as the 'how to buy a hospital' uncertainty will become less uncertain. Financial system considerations (1.b.iv) will be less important as the system reaches a more completed state. ZBC venture/ growth (1.a.i) is becoming more difficult, for instance because of the 2,5% growth cap and is likely to become less attractive as the market matures. The effect of information systems (3.a) will improve with those systems. This analysis is a summary of the findings discussed in chapters six and seven and is not an exact representation of actual costs measured. Nonetheless it provides priorities for an investor looking at medical care investment: which strategies to implement first? Which may become more effective in the near future?

Next, final step

This answered the final research question on how private equity investment success in medical care can be improved. The next and final step is answering the main research question.

8 Conclusions and recommendations

Here the main conclusions drawn from the research are presented, followed by recommendations for the private equity investor, from a more public perspective and for future research. In the reflection the effects on the results of process and assumptions are discussed.

8.1 Conclusions

In chapter one it was explained that Dutch healthcare faces a challenge to provide more, higher quality and more specific care, with less public funding, in the next decades. Private equity investment in medical care can be a solution as public capital is substituted by private capital and investors may drive the realization of high potential quality and efficiency improvements. The market growth and added value potential make medical care investment an opportunity for investors. However, the complex governance and public value related uncertainty are great risks for the investor and there are significant risks for the public values of quality, accessibility and affordability of care. Therefore the main question stated:

Answering the main research question

How can private equity investment in medical specialist care be a durable success?

Where an approach can only be durably successful when the aims of both involved private parties and the public interests are furthered.

The answer in terms of the theoretical framework formulated is that durably successful private equity investment in Dutch medical care means minimizing agency costs deriving from diverging interests and information asymmetry, by incurring monitoring and bonding costs, in the relation between key actors. High agency costs obstruct investment success on three levels. Between medical specialists as a subpart of the institution and management of their entire institution and between the institution invested in and preceding and consecutive care providers on an operational level. Between debt providers, equity investors, management and insurers on an institutional level. Between the public interests and the interests of the other actors, as mediated by these insurers, on a system level. The strategies found which are being used successfully or likely to be successful in the near future, aligned interests of these actors and/or reduced information asymmetry, on these levels and across the boundaries of these levels. The discrepancy between system optimality and local solutions in terms of conflicting public values anticipated by theory appears clearly in practice and aligning these interests is an important aspect of several successful strategies. The framework for agency cost reduction proved highly applicable to medical care.

Minimizing agency costs between key actors

Practically speaking, there are two main feasible investment approaches, hospital turnaround and ZBC venture or growth, which may be combined in the form of a hospital turnaround with investment in ZBC spin-offs. These two options appear to have potential to reduce the obstacles based on information asymmetry and interest divergence sufficiently with the strategies, to provide sufficient return for the investor, satisfy the interests of other actor categories and serve the public interests. Table 8-1 shows the obstacles met when applying the two approaches on the three levels and which strategies address these obstacles.

Two basic approaches with success potential

Table 8-1: Two main approaches for investment success

	Obstacles for success	Level	Strategies used	Level
Hospital turnaround	No rules of the game	S	Specific asset choice	I
			Public private separation	I
	Critical insurers	S	Specific asset choice	I
			Information systems	I/IS
	Managerial interdependencies	I	Specific asset choice	I
			Information systems	I/IS
	Investor adverse institutions	I	Internal alignment (+ spec. Man.)	I/IS
	Incumbent opposition	IS	Specific asset choice	I
			Incumbent networking	I/IS
	Inability to govern the operational core	IS	Internal alignment (+ spec. Man.)	I/IS
			Information systems	I/IS
Turnaround to venture				
ZBC Venture/ Growth	No rules of the game	S	Specific asset choice	I
	Critical insurers	S	Specific asset choice	I
			Information systems	I/IS
	Managerial interdependencies	I	Specific asset choice	I
			Information systems	I/IS
	Investor adverse institutions	I	Internal alignment (+ spec. Man.)	I/IS
	Incumbent opposition	IS	Specific asset choice	I
			Incumbent networking	I/IS
	Inability to govern the operational core	IS	Incumbent networking	I/IS
			Information systems	I/IS

Key obstacles and strategies

S = system, I = institution, IS = institutional subpart

The obstacles and strategies on the different levels linked and emphasis per approach

Key blockers: Governance complexity and public value driven uncertainty

The obstacles on the three levels are mainly addressed by strategies on an institutional level and on the interface between management of the institution and operations. This confirms the expected importance of governance complexity in the institution; the link between management and the medical specialists is key for obtaining both private goals as serving public interests. The no rules of the game obstacle, or public value driven uncertainty is the second main blocker for investment success; this uncertainty applies to both approaches. Exposure to uncertainty can be reduced with specific asset choice and public private separation, but this reduction will remain incomplete. High uncertainty appears as inevitable for an investor in Dutch medical specialist care.

Investment outlook

The two most promising investment approaches are both not a complete fit for a private equity house. Hospital turnaround will take more than the five to seven years terms used for private equity and is more suitable for other investor types, those with a long term, medium return and hands on approach, such as some family offices and individuals.

High profitability for an investor has not materialized in practice in the Netherlands, but is clearly feasible based on foreign examples. Some foreign dedicated hospital operators have private equity owners. ZBC growth is the approach used by private equity houses currently active in Dutch medical care. Expected returns are still low for private equity standards, but this approach has the best fit with the private equity way of working. However the for an investor promising strong growth of ZBC's in the recent years may be obstructed in the next years, especially because of the 2,5% regional growth cap leading to insurers reluctant to provide new or enlarged contracts. Choosing the right location, asset and specialism will thus become even more important. Participating in a complete care system, owning all four quadrants of the volume versus complexity division, is probably the most rewarding investment. However who will dare such a large investment in view of the high uncertainty? Medical care investment in these two forms is likely to positively affect quality and affordability and may not harm accessibility depending on the insurers actions. On a longer term the developments in medical care in reaction to the 'more care for less' challenge, such as the completion of the payment for performance program, concentration and monitoring for higher quality, local access, and insurer selectivity, are likely to drive hospitals towards turnaround, inception of new focus clinics and increased importance of private capital in healthcare. The current high overcapacity may also diminish. Therefore investment success potential for both private parties involved as for the public interests is likely to keep increasing in the coming years.

8.2 Recommendations

A (private equity) investor setting up a scheme for medical care investment increases changes of success substantially by:

For the investor

1. Choose a repeatable approach and select assets, location and specialism to maximize simplicity, non-adversity, regional portfolio fit and financial prospects related to DBC reality fit and BTW, in addition to normal private equity investments' due diligence and selection criteria such as management capacities
2. Configure governance to balance investor return, internal alignment to deal with governance of the operational core and incumbent networking to deal with opposition
3. Noting especially that medical specialists represent the real value in a medical institution and that aligning their interests with those of the institution and with the public interests, through a combination of contracting with financial incentives, fusion of honorarium and other cost components, ownership and dual management, drives success
4. Using information systems to make public value achievements transparent for insurers, increase service level for other care providers and patients and increase management effectiveness
5. Monitoring legislative and political developments and not letting public value driven uncertainty lead to indecision

Recommendations for the public, more or less represented by government and insurers as the public value champion, based on the results are:

From a public point of view

1. Agency theory leads to measures with a lot of weight on financial incentives. As suggested in chapter two however, disregarding the disutility an agent receives by the fact that he does not fulfil his obligation, or moral bonding, leads to unrealistic and counterproductive measures. Financial incentives are to be a subtle addition to professional ethics and other mechanisms leading to positive behaviour

2. Lacking alignment between specialists, the institution and public interests is a source of uncertainty and high costs. Local optimal solutions reflect poorly on a macro level and system wide leadership is lacking. Intended markets lack clear rules and care such as WBMV and acute care, lack direction. These should be explicit focus points of policy
3. The intended future optimal landscape of medical care (less and only top clinical hospitals, focus clinics, first line centres, etc.) has been clearly described in policy documents for many years. However realizing such changes has hardly occurred, mainly because of vested interests. Government direction and a strong insurer with the right incentives are required to meet the challenge for Dutch healthcare
4. The maatschap in its current form is undesirable, however forcing specialists under contract without additional measures is not a solution and self-employment can be seen as an explanatory factor behind the current good state of Dutch care. Specialist ownership, incentives that link performance to institutional and public interests and shared responsibility better reflect the professional bureaucracy reality of medical care. It is impossible to really 'control' the operational core as an outsider, so make sure your interests are theirs

Various aspects related to medical care investment remain unknown and have not been addressed by this study, the most important recommendations for sequential research are:

For follow-up research

1. One of the main problems from a public perspective is the inability to fund health improvement instead of medical treatment production. Practice variation research seems promising for helping to determine public value effects and benchmarking. Insurers are recognizing this and increasing their efforts in this direction
2. A study into the organizational structure of hospitals and how interest divergence and organizational complexity can be minimized will create more insight in how ownership and governance can be optimized, to deal with the currently high inefficiencies
3. Researching informational architecture of care providers and how quality management, performance measurement and electronic resource planning can improve management effectiveness and quality of care, offers great potential for added value
4. Due diligence and valuation of medical care investment objects is a necessity for investors

8.3 Reflection

The conclusions and recommendations are a product of the research process and results; therefore it is necessary to reflect on both process and results.

Implications of the agency framework

The agency cost framework is the backbone of this thesis and it is therefore important to discuss the specifics and flaws of the approach to rightly value the findings. The framework directed the interviews and cases towards looking for residual loss factors, the obstacles and monitoring and bonding mechanisms, the strategies. Opportunities not related to information asymmetry and interest divergence have therefore not necessarily been properly evaluated. The general potential for added value which was shortly discussed covers part of this flaw. Secondly although the cases provided insight in how value should be added and common private equity knowledge detailed how value is realized, focus was primarily on the fundraising and investment phase. A reason for this bias seems to be that the agency cost framework, with interest alignment as most potent direction, pushes heavily towards ownership and incentives relating to the governance structure. The governance structure is put in place during the investment phase and in this way the complex governance problem is mainly to be dealt with before adding value begins. The public value driven uncertainty problem is likely to have more solutions in later stages, which may not have arisen because of the principal – agent focus.

Thirdly it should be noted that several of the relationships examined are not principal agent relations in pure form, but more bidirectional. This does not mean that it is not valuable to reduce information asymmetry and interest divergence as these will always entail transaction costs. In that respect is important that 'costs' are very broadly defined and that costs are seen as equally bad, however incurs them. This is off course not the reality from an investor or a public perspective, but as both perspectives are considered this treatment of costs is a logical workaround. Finally it is important to note that agency theory assumes rational actors, while actors are not rational in reality. For instance a medical manager may disregard various financial and political incentives because he feels that his hospitals should not disband certain specialisms. However individual cases aside, it will be generally true that incentives guide behaviour in the designated direction.

Assumptions on developments and the role of private capital

The problem description assumes a greater role for private investment in medical care in the future, because of the pressure on public budget, current political choices and an underlying trend of increasing private capital. However it is not unthinkable that with a political change, the promise of a more welcoming environment for investors will not materialize. Although profit distribution allowance does not seem required, developments such as the limits on growth per institution can seriously hinder institutional expansion and therefore the return potential for investors. Although economic growth would be obstructed by dealing with the growing healthcare costs with marginal tax increases, this is still a feasible option. The developments in medical care as described, which are mostly in reaction to the more quality for less problem, have been put forward in policy documents for the last decades. This can also mean that they have not materialized for reasons which will keep them from materializing in the future. Various scenarios are possible. These uncertainties have been touched on in the 'no rules of the game' obstacle and it is important to know that the political/ governmental environment and the resulting landscape are highly unpredictable. Developments could render the findings of this research irrelevant, at least for investors, but maybe even for hospital governance.

Specific problem owner perspective

The research was setup from a private equity investors' perspective. Three main comments are to be made regarding this approach. First comment is that private equity investment is particular compared to investors in general. The results showed that other investor types were more suitable for investing in hospitals, while medical care is still mostly professed in general hospitals. So looking at investment in medical care, should the particularities of private equity investment not have been less dominant? And looking at private equity investment in Dutch medical care, should not the conclusion have been a stronger negative: maybe successful in some small and insignificant cases, but not very important for Dutch care? The second comment is that the approach taken was not really as a private equity investor would have looked at the problem at hand. For instance all due diligence and valuation related issues have not been dealt with, mostly due to lack of financial data of ZBC's, irrelevance of financial data of hospitals because of their non-profit nature and lacking comparability of foreign cases. Although the respondents (including those with a private equity background) indicated that the main problems for medical care investment were complex governance and regulatory and political uncertainty, this remains a blank spot. The third comment is that the assumption was made that because of the gravity of public values of healthcare in the Netherlands, investment without alignment with public interests is not feasible. This is not necessarily always true however, as the lack of transparency and general conservativeness of the medical world may allow actions that contradict public interests long enough for an investor to be gone with high return before legislation or the insurance companies would intervene. Regulation will be important in determining the public value alignment of investments in medical care. These three comments highlight certain aspects of the research that will not be always applicable. Realization of these limitations is important for full understanding of the findings.

Discussion of methods application

The interviews and case studies provided the results leading to the conclusions, which is why their setup must be examined for bias. Two notions concerning the interviews are relevant. In the first place, the interviews were held in a sequence, while literature review and desk research was also underway. Therefore the insight of the interviewer strongly increased and differed for each interview, on top of the learning effect inherent in consecutive interviews. As the interviews with private equity respondents and general healthcare consultants were relatively early in the process, a bias towards the focus and opinions of the medical managers and insurers can exist. A second notion of importance is the unstructured nature of the interviews, which provides only limited validation. The effect of both notions on the validity of the results can on the other hand be regarded as less negative due to the consistency of facts as presented by the various respondents. There were only a few instances were contradictions appeared. About the case studies it should be noted that all three categories are not perfect for comparison: information about the ZBC cases was incomplete and only general facts known supplemented with some details from the interviews; the two hospitals were not private equity investments and the MC Groep not even equity investment; Dutch medical care has many peculiarities and therefore comparability of foreign dedicated hospital operators is limited. The analysis of the findings was done with these imperfections in mind.

In conclusion, the assumptions made, methods used and perspective chosen have affected the results. Nonetheless the obstacles and strategies exist and the general conclusions follow logically from these and literature. The results are therefore useful as to be expected from an explorative research thesis.

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