Redefining the Boundaries in Health Care:

Hospitals and public and private equity investors

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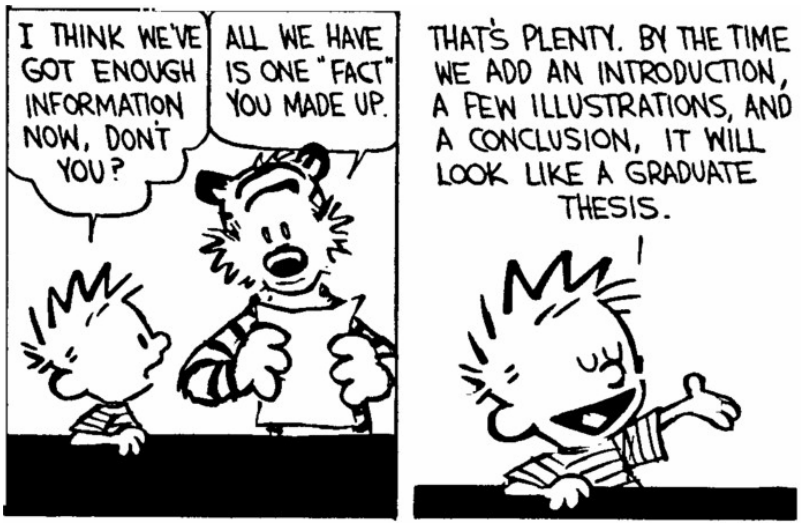
Voorwoord

Na de afronding van mijn studie bedrijfskunde in Maastricht wilde ik mij graag verder verdiepen in de gezondheidszorg. Ik besloot dan ook om nog een tweede studie op te pakken in de vorm van de master Health Economics, Policy and Law. Doorstuderen is mij goed bevallen, vooral het half jaar in Oslo was een erg leuke en interessante tijd. Helaas betekent een tweede studie ook een tweede scriptie en het schrijven daarvan is mij niet zo 'soepel' vergaan als de vorige keer. Gelukkig heb ik een goede start kunnen maken in de vorm van een stage bij adviesbureau Berenschot waar ik een goede kijk in de keuken van de advieswereld hebben kunnen krijgen. Ik wil dan ook alle medewerkers van Berenschot Zorg en René van Duuren in het bijzonder bedanken voor deze kans en mooie ervaring. Het was dan ook vooral de afronding van mijn scriptie die op zich heeft laten wachten maar het resultaat ligt dan eindelijk voor u.

Verder wil ik graag mijn begeleider van de Erasmus Universiteit Erik Schut bedanken voor zijn begeleiding (en commentaar…) in het schrijfproces. Als laatste wil ik mijn moeder en vriendinnen bedanken bij wie ik altijd terecht kan voor de nodige afleiding en gezelligheid.

Op naar de volgende stap!

Zina



Calvin & Hobbes

Abstract

This thesis attempts to contribute to the ongoing discussion in The Netherlands on the allowance of profit distribution by hospitals through a study of one of its major advantages: access to equity financing. The analysis consists of an evaluation of the performance of for-profit equity financed hospitals in Germany and the UK. Performance is approximated by the extend to which hospitals contribute or harm the public goals in health care: efficiency, quality, accessibility and continuity.

When a set of market conditions is met, for-profit hospitals allocate resources most efficiently. However in health care these conditions cannot be met, leading to market failure. When authorities cannot sufficiently address market failure, contract failure is present and for-profit organisations can still be efficient but could display negative behaviour affecting the other public goals. The mainly US-based empirical literature shows that even though for-profit hospitals can often generate higher revenues and profits than not-for-profits, it is not always clear whether this is reached through high prices or better cost management. Furthermore, the literature cannot provide a straightforward conclusion on how for-profit hospitals affect quality, accessibility and continuity. Leaving to assume that there is still a possibility that for-profit hospitals can negatively affect the public goals.

Although the case studies are highly constrained by data availability, outcomes from the German and UK markets do show that the equity financing does not harm the performance of most of the analysed indicators. There are however signs of upcoding and selection behaviour. Outcomes also differ among type of investor, where German public equity hospitals perform better than UK private equity hospitals. Public equity hospitals have a more stable financial performance and can contribute to a transparent market. Private equity can be harmful due to its often risky debt management. It is therefore recommended that hospital equity investors in general and private equity in specific should be regulated through restrictive legislation. Finally, a pilot case study is necessary in order to determine what the specific effects of allowing profit distribution and equity financing are in the hospital market for The Netherlands.

1. Introduction

1.1 Background: Allowing profit distribution or not?

As in most other health care markets the Dutch market is dominated by not-for-profit institutions. For-profit companies distinguish from this by the ability to distribute profits to third parties which allows them to attract equity from private investors and compensate through dividends or capital gains. Since the 1980's health care reforms focusing on the introduction of market elements in health care have been dominant in many Western countries. In this light a much debated topic in The Netherlands but also in other countries is whether to allow for-profit hospitals (Dijkgraaf et al., 2006). This chapter outlines the background leading to this discussion on for-profit health care in The Netherlands and works towards the problem definition of this thesis.

1.1.1 The principles of Dutch health care

The principles of a health care system are important as it often forms the basis on which a system and reforms are outlined. Subsidiarity[1] and social solidarity[2] lead to a dominant role for private organisations and state involvement in the Dutch system (Helderman et al., 2005). Furthermore the Dutch Constitution describes that authorities should promote the health of the population in which quality, availability and affordability is secured (Linders, 2007).

1.1.2 Market-oriented health care reforms

The Netherlands has reformed its health care system from a supply-side orientation to a form of managed competition. In 2005 the DBC pricing system was introduced in which a DBC represents an administrative code for the diagnosis and treatment and the related costs of a specific case or patient. Most DBCs have regulated prices, known as the A-segment. The B-segment which currently accounts for about 20% of the hospital activities has negotiable prices. The hospital then has to negotiate with the health insurer on the price, quantity and quality of DBCs (Oostenbrink & Rutten, 2005 & Ministerie van Volksgezondheid, Welzijn en Sport, 2007a). Next, since 2006 all

[1] Subsidiarity means that the central government should only perform the tasks that local authorities are not able to perform more effectively (Helderman et al., 2005).

[2] Social solidarity means that all members of society should have access to health care regardless of their ability to pay (Helderman et al., 2005).

Dutch citizens have to buy at least basic health insurance. At the same time health insurers are obliged to accept everyone for a basic insurance. A risk adjustment system compensates insurers with expected high risk profiles. The Dutch Healthcare Authority (NZa) was created to monitor the newly established conditions in the health care market. Along with the Dutch Competition Authority (NMa) it monitors and promotes competition. A third major reform was the liberalisation of the hospital planning system described in The Act on Licensing of Care Providers Institutions (WTZi). The new system provides hospitals with the freedom the make their own capital decision but abolishes the capital reimbursement scheme. Hospitals but also lending institutions are expected to evaluate their capital decisions more critically as they will experience more financing risk. The WTZi has stirred the discussion to lift the ban on for-profit hospitals as it could facilitate attracting funds for capital investments. Although several providers are allowed to be for-profit, concerns are raised as providers offering medical specialised care (hospitals) should be allowed to have the for-profit status (Ministerie van Volksgezondheid, Welzijn en Sport, 2007b & Maarse, 2007).

1.1.3 The allowance of profit distribution?

Historically, most Dutch hospitals originate from private charitable initiatives. Today, nearly all Dutch hospitals are not-for-profit organisations (Den Exter et al., 2004). For-profit health care institutions are referred to as private clinics. Previously, they were in conflict with the supply-oriented hospital planning system and were often forced to apply for a license in the Hospital Planning Act (Wet Ziekenhuisvoorzieningen WZV, former WTZi) (Knoors et al., 2004). Since 1991 private clinics were tolerated but it was not until 1998 that an official arrangement was established. A private clinic became as of then either a private clinic in its pure form offering only third compartment care[3] or an independent treatment centre (Zelfstandig behandelcentrum, ZBC[4]).

Profit is not an uncommon concept in hospital care; most medial specialists are

[3] Supplementary health insurance, those forms of health care which are regarded as being less necessary possible examples are additional dental insurance or luxury hospital accommodation (Den Exter et al., 2004).

[4] It should be noted that since the introduction of the WTZi, the official term ZBC does not exist anymore and these types of providers are referred to as institutions offering medical specialised care (Nederlandse Zorgautoriteit, 2007). Often the term ZBC is still used in the field and for means of simplicity ZBC is continued to be used here, referring to the explanation above.

organised in partnerships ('Maatschappen') in which individual incomes are dependent on the 'profit' of the partnership. Also hospitals often outsource certain activities such as laundry and meals to for-profit organisations (Hermans, 2004). In 2002, the Dutch Council for Public Health and Health Care (RVZ) published its findings on a series of studies regarding for-profit initiatives in health care. Its main conclusion was to raise the ban on for-profit health care for providers given that; appropriate quality measurements, a well-functioning health care inspectorate and an authority monitoring the market, competition and prices are in place. The Council's advice was quite controversial at the time and the proposed date to lift the ban in 2005 was never reached. In 2006, a new report was published by the 'Kenniscentrum voor ordeningsvraagstukken' concluding that profit distribution is a good means to attract new capital where dividends can be seen as interest paid on loans. Shareholders would pressure for efficiency and new providers would be attracted, leading to more competition. Yet risks such as cherry picking and risk selection[5] should be accounted for (Kenniscentrum voor ordeningsvraagstukken, 2006). The ultimate decision for allowance is determined by the cabinet as indicated in the two government letters on capital costs ('kapitaallastenbrief'). In the first, Minister Hoogervorst explained that a transition period is necessary to fully convert to a transparent and integral pricing system and for the institutions to adjust to new financial risks. These elements are also essential requisites for the allowance of for-profit health care. Additionally, the economic value obtained in the riskless environment maintained by the state should not 'leak' to any commercial third parties (Ministerie van Volksgezondheid, Welzijn en Sport, 2005). The current Minister of Health, Ab Klink has broadly accepted this interpretation in the second government letter on capital costs. He stresses that the two mentioned requisites by Hoogervorst in 2005 are not met yet. He does indicate that if the earlier described constructed economic value is protected, some organisations should have the opportunity to explore other legal forms besides the not-for-profit foundation ('stichting').

Both Minister Hoogervorst and Klink were confronted with specific cases in the for-

[5] Cherry picking is referred to as a policy of picking out the profitable (healthy) people and refusing the unprofitable (unhealthy, chronically ill). Risk selection refers to selecting people on the basis of their (health) risk profile. Note that these mechanisms are only stimulated to use when prices set for health care services do not adequately reflect the treatment costs made (Folland et al., 2007).

profit debate. Minister Hoogervorst encountered the financial distress of the Amsterdam Slotervaart hospital which almost faced bankruptcy when a 10 million euro tax debt needed to be paid. Eventually the hospital was sold to private equity investor Meromi Holding B.V[6]. Even though the Slotervaart was not the first hospital to be formed as a B.V., the Rotterdam Havenziekenhuis is a 'B.V.' as part of the Erasmus MC, it was the first hospital to fall in private hands. Minister Klink on the other hand was confronted with the Dutch Healthcare Authority's (NZa) advice to allow a group of hospitals to experiment with for-profit health care. Both ministers acknowledged the advantages of allowing profit distribution for health organisations but held on to conditions set in the first and second government letters on capital costs before profit distribution is allowed, even in a trial period. Finally, the cabinet has to make the final decision (Hoogervorst, 2006 & Klink 2007 & Zorgvisie, 2007). It can be questioned how profitable it is for investors such as Meromi to participate in hospital projects, especially hospitals in debt. Probably, Meromi sees the Slotervaart hospital as an entrance opportunity in the Dutch health care market and is expecting that regulation will loosen in the near future.

1.2 Problem Definition

As indicated, the changing health care environment has spurred the discussion in the Netherlands to allow profit distribution by hospitals. Analysing profit distribution can be done from different perspectives. Several proponents argue that a major advantage is that hospitals will be able to attract funds from private investors (more easily). In addition to this Dutch hospitals will increasingly experience more financial risk for which they will have to improve their capital structure, especially their equity position. It can even be argued that when hospitals are confronted with more financial responsibility, they should also have the freedom to deal with capital issues themselves. Using private investors to increase equity capital in return for partial ownership is referred to as equity financing. Equity financing can be divided into public equity, funds acquired by a company listed on the stock exchange from the capital market and investors providing funds to non-listed companies known as private equity. Unfortunately, most investors are only interested when a certain amount of return can be earned. At this point hospitals are restricted to the non-

[6] 'Besloten vennootschap'. A company with limited liability, where shares cannot be freely transfereable. In contrast to a 'naamloze vennootschap, NV" where shares are not registered. This form is suitable for stock listing.

distribution constraint, specific for not-for-profit organisations. Therefore improving the capital structure by attracting private investors would in most cases require a conversion from the not-for-profit to the for-profit status, turning to the for-profit debate.

Economic literature suggests that for-profit organisations outperform not-for-profits. Yet countries having for-profit hospitals cannot always report straightforward positive outcomes. For-profit hospitals are reported to display behaviour such as eliminating medical services which are not 'profitable', lower quality or other negative activities (Hansmann, 1980 & Dijkgraaf et al., 2006). Under certain circumstance, for-profit hospitals do not perform as well as economic theory would suggest. Furthermore, most analyses on for-profit hospitals focus on the American market which has a long history in for-profit medicine and provides an abundance of data and empirical studies, yet there is a reasonable amount of experience in Europe with for-profit health care as well. As the health care systems and values are more similar within the European boundaries, an analysis in this area could contribute to the existing literature. For that reason, this thesis focuses on the German and UK market. Overall, this leads to the following problem statement:

What is the impact of public and private equity investors on the performance of hospitals and under which conditions could the performance improve?

Under certain conditions, it could be assumed that for-profit hospitals outperform not-for-profit hospitals. When these conditions are met, the free market can function effectively in such a way which is most beneficial to the consumer/patient. The (hospital) market is most beneficial to consumers when hospital care is available at an acceptable level, at the required quality for the lowest cost available. This can be translated in four public goals[7]:

- Efficiency;
    - Products and services are offered at the lowest possible price but at the desired quality levels.
    - Innovation is stimulated to enhance efficiency in the long-term.

[7] These goals are social interests which need to be secured as stated by the Scientific Council for Government Policy (Wetenschappelijke Raad voor het Regeringsbeleid, 2000 & Dijkgraaf et al., 2005).

- Quality; products and services are offered at the by the government set quality levels, at minimum.
- Accessibility;
    - Access to a socially acceptable amount of the products or services.
    - Access within a socially acceptable reasonable time frame.
    - Access in a socially acceptable location range.
    - Access for a socially acceptable price.
- Continuity
    - Long-term access to the products and services.

Although even a perfect market cannot guarantee all features of the stated goals, when the conditions for a well-functioning free market cannot be met, market failure is present and the above mentioned goals become a public responsibility as a whole. Authorities have to interfere in order to address the negative behaviour of for-profits. In chapter two these conditions are examined and it also outlines how the Dutch government uses regulation to guarantee efficiency, quality, accessibility and continuity in the hospital market. This leads to the following sub-question:

- Under which conditions do for-profit organisations outperform not-for-profit organisations? (Chapter 2)

When it can be established under which conditions for-profit hospitals could perform well or how this could be regulated, authorities could allow hospitals to have the for-profit status. A major advantage is that hospitals can attract funds from public and private equity investors, leading to the next two sub-questions:

- How can public and private equity (financing) be defined? (Chapter 3)
- What are the advantages and disadvantages of public and private equity (financing)? (Chapter 3)

Hospitals in the UK and Germany have access to equity financing and serve as case studies for this thesis. In the case studies the performance of public and private equity hospitals is evaluated and both forms of equity financing are individually analysed. However, as the public goals indicate, hospital performance is a wide concept and should be reflected against the public goals. Also, as health care markets in Europe significantly differ, direct international comparison is very difficult and a comparative analysis is partly avoided in this thesis. In order to make the conclusions more general applicable and link it to the starting point of this thesis, the Dutch hospitals market, the health care markets of the countries analysed need to be explained as well. This

helps to place any outcomes in the context of the relevant environment. Chapter 4 then answers the following question:

- How do the hospitals with public or private equity investors[8] perform in the UK and Germany?

Finally, the results are discussed and a conclusion is drawn, answering the problem statement. Overall, this thesis is an exploratory study where it attempts to contribute to the profit distribution debate by investigating the phenomenon of equity financing by public and private equity investors in hospitals. The primary source of data comes from published articles from journals, newspapers, theses and other studies.

1.3 Conclusion

The topic of for-profit health care organisations is a popular subject of debate. In fact the debate is two-fold; first is for-profit health care in general acceptable and secondly if we allow it what are the boundaries? Inevitably, there are still many critics of market-orientation however it can be said that it is slowly becoming more acceptable; even profit is not that uncommon in health care. The second part of the debate is less conclusive. The last two Ministers of Health both recognized the advantages, especially in creating access to the capital market. However a thorough analysis of the risks in relation to these advantages is needed before any boundaries (if any) can be established. In the remainder of this thesis the advantages and risks of for-profit hospital care in general and equity investors more specific is analysed through the limited but available experiences in German and UK hospitals. Ultimately, this thesis attempts to contribute to the profit distribution debate in The Netherlands by analysing the performance of an often argued advantage: hospitals equity financing.

[8] Note that throughout this thesis hospitals with public or private equity investors are referred to as investor-owned hospitals, equity financed hospitals or hospitals with equity financing. This is a form of a for-profit hospital where hospitals can distribute profits to their outside owners but in this case where hospitals also have public or private investors who provide funds to increase equity.

2 For-profit Organisations

2.1 Introduction

Opening up a hospital market to for-profit organisations provides hospitals with several opportunities such as the possibility to attract funds from private investors (equity financing). Before going further into the analysis of equity financing, it is necessary to indicate under which conditions for-profit hospitals will perform most efficiently. This chapter therefore turns to the economic theory on for-profit organisations and more specifically related to the health and hospital market in general and in The Netherlands in specific.

2.2 The Hospital Market and Market Failure

The economist Adam Smith introduced the term the invisible hand, where producers and consumers acting out of self-interest create an equilibrium in which social welfare is maximised. In a market with sufficient competition and pressure from outside owners and investors, for-profit organisations are stimulated to address the demands of its owners and the consumer. Then the performance is focused on efficient behaviour but also where possible on quality, accessibility and continuity for the consumer. However, the invisible hand theory is subject to a set of assumptions which are often not satisfied in health care due to risk and uncertainty. Also Kenneth Arrow argued in his 1963 paper that a competitive model cannot function in the medical care industry. He examined three preconditions for a market which fail in health care: existence of a competitive equilibrium (set of prices which clear the market), the marketability of goods and services relevant to costs and utilities and non-increasing returns. Today, neo-classical economics underlines a larger set of assumptions for a perfect market. Dolan and Olsen (2002) outline seven fundamental ones:

1. Many buyers and sellers; a single buyer or seller cannot influence the market price, holding a competitive equilibrium (Arrow, 1963). There are relatively many buyers in health care; the number of sellers may vary depending on location (Dolan & Olsen, 2002). Also, information asymmetry determines that the buyers of care are dependent on the seller to determine their needs. Therefore, buyers and sellers can not act independently (Lapré et al., 2001).
2. Full information; buyers know the quality, how much and when they need the product or service (Dolan & Olsen, 2002). This refers to the second assumption of

Arrow (1963). Recovery from a disease and incidence on an individual level is very unpredictable. Also it is often difficult to learn from own or other experiences due to the specificity of diseases. Folland et al. (2007) refer to this as health care not being a reputation or experience good. Therefore, specification and guarantees set in advance can change during the process of treatment due to complications. This could interfere in the prices, treatment time or any other parameter set beforehand (Arrow, 1963).

3. Impersonal transactions; buyers and seller do not act independently and operate at arm's length (Dolan & Olsen, 2002). This is due to the trust relationship built between doctor and patients, patients are less likely to switch to another doctor when for example waiting lists are high (Lapré et al., 2001).

4. Homogenous products; buyers cannot distinguish between the products of the different producers. Sellers can increase the perceived quality of the health services by using attractive amenities, yet true quality is difficult to evaluate by buyers (Dolan & Olsen, 2002).

5. Private goods; the person consuming the product or service pays all the costs and gains the benefits involved (Dolan & Olsen, 2002). If the condition fails, Arrow's non-increasing returns conditions fails as well and externalities[9] can occur. The market price does not accurately reflect all information on the benefits and costs involved. In a perfect market, a person who would choose not to be part of an immunisation programme should be triggered by a pricing system to participate anyway or pay a price to anyone he would pose a risk on.

6. Selfish motivations; buyers only want 'satisfaction' and sellers profit maximisation. Patients are mostly selfishly motivated regarding health care. Professional ethics for doctors restraint them to a large extend from the narrow focus on profit maximisation (Dolan & Olsen, 2002).

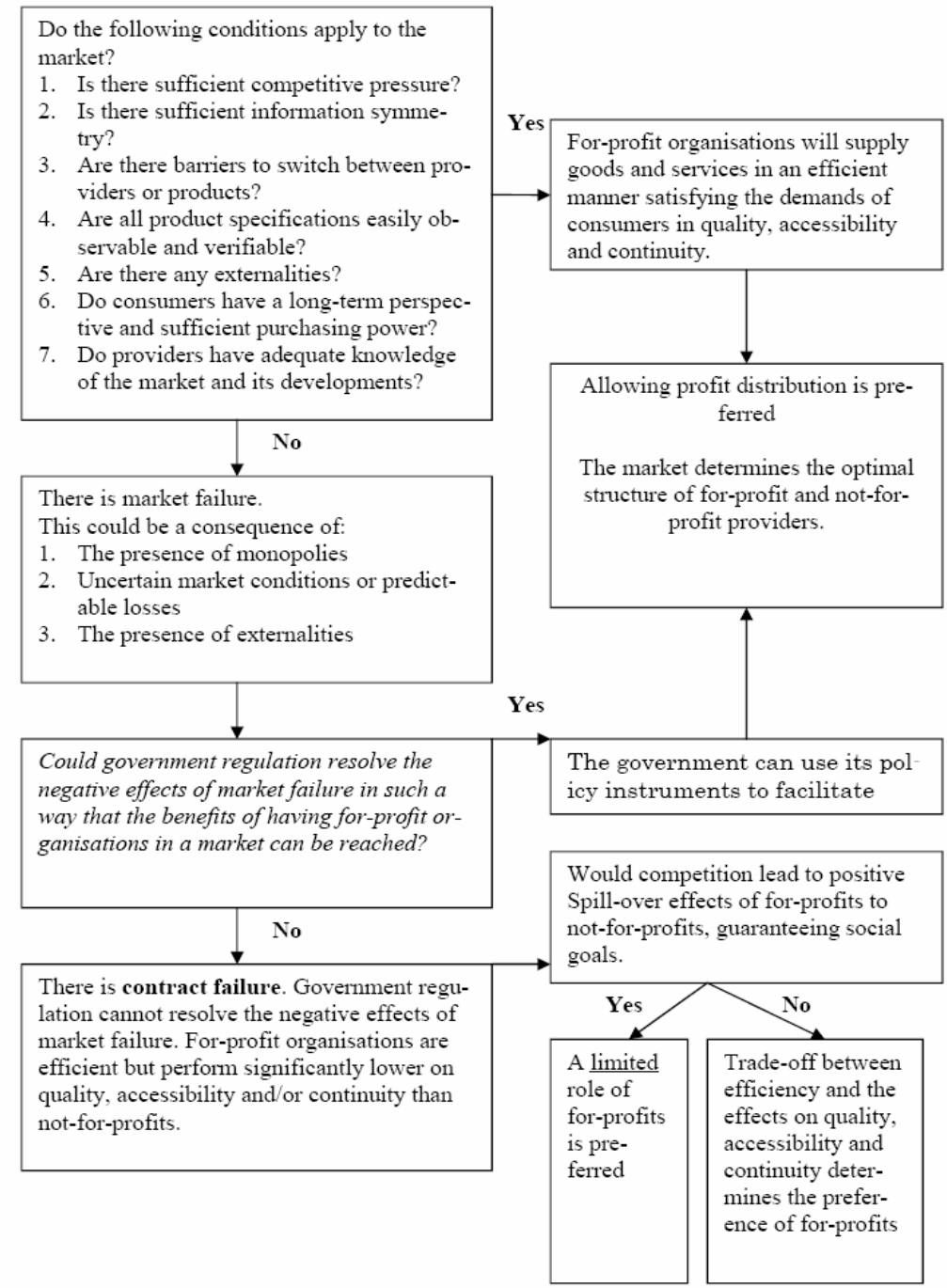
7. Free entry (and exit); barriers to exit are rarer in health care but barriers to entry are not and exist in professional regulation, required qualifications and supply regulation. Most importantly is however that there is competition for the market so that contracting is competitive. At least two bidders are needed who cannot ignore

[9] Externalities are referred to as the impact of one person's behaviour on the other person's utility (Dolan & Olsen, 2002)

each other and information on the bids need to be available for evaluation (Dolan & Olsen, 2002).

Dijkgraaf et al. (2006) has used a quite similar set of market conditions in Figure 2.1 which can be compared to the numbered items above.

Figure 2.1



A framework is created in which market conditions which are not met, lead to market failure. When market failure is present, negative behaviour by for-profits could lead to negative effects on the public goals which are outlined in Box 2.1.

Box 2.1

- Quality; when available, excess resources of a hospital can either be spent on quality improvements or cost reductions. However Hart et al. (1997) show that when quality is difficult to measure and buyers of health care cannot 'contract' on quality, providers will have a too narrow focus on cost reductions. Quality skimming can be a consequence of such a strategy Dijkgraaf et al., 2006).
- Accessibility; when competition is relatively low, providers have the opportunity to select higher prices. Increased prices may be justified when quality is improved as well, however this is often difficult to verify in the absence of adequate measures. Patients do not have the opportunity to easily switch to another hospital and accessibility is deteriorated (Dolan & Olsen, 2002). Also, as most health systems reimburse based on a system such as the Dutch DBCs, hospitals have an incentive to bill the code which provides the highest reimbursement (upcoding). Next, when reimbursement of costs is not appropriate for providers there is an incentive to offer only those services which are 'profitable'. To remain profitable, for-profit hospitals could have the tendency to make a selection based on the products they offer or the type of cases (severity) they treat (cream skimming) (Folland et al., 2007).
- Continuity; for-profit organisations can go bankrupt or be taken over by other parties. A for-profit market can therefore show larger entry but also exit rates of hospitals which can threaten the accessibility in the long-term (Dijkgraaf et al., 2006).

Government regulation can be necessary to address market failure and its negative effects. If regulation cannot force for-profit organisations to pursue the public goals sufficiently, contract failure is present. For-profit organisations can still be efficient but other public goals can be threatened. Not-for-profit organisations have a less strong focus on profit maximisation and therefore quality, accessibility and continuity are a larger part of their strategy. At this point a trade-off has to be made between the efficiency effects of for-profits and the other goals pursued by not-for-profit organisations (Dijkgraaf et al., 2006). As a final comment three things should be noted, first in a market with contract failure not all for-profit organisations disregard

public goals, it is rather that the adequate mechanisms are missing to stimulate all organisations to pursue it. Secondly, behaviour such as risk selection and cream skimming is not necessarily unacceptable as long as the differences in case mix is recognised in reimbursement or prices and organisations not engaging in these techniques can produce enough volume to remain 'profitable' . Finally and probably most importantly, even a perfect market cannot completely guarantee all aspects of the public goals and some form of regulation is always necessary in health care. High prices can still exist in perfect markets (or not-for-profit markets) when it accurately reflects the costs made. In order to guarantee accessibility, interference can be necessary through subsidies for low income groups or chronically ill or through social insurance (Deber, 2002).

2.2.1 The Dutch hospital market and market failure

The Dutch government acknowledges that the conditions for a perfect market are not met in health care and regulation is necessary. Part of this regulation is the currently debated obligatory not-for-profit status of hospital. Government interference can be directed to the market conditions or the sources of market failure and the negative behaviour of for-profits in case of market failure. The interferences listed below are ranked according to market conditions as the Dutch hospital market does not allow for-profits. However most regulation could also be directed at negative behaviour following market failure if for-profits would be allowed in the future.

- Competition; Competition is mainly situated in the West of The Netherlands. Barriers to entry can reduce competition and exist in the form of regulation such as the formerly required building licenses for hospitals and the not-for-profit status which is still applicable. The competition authority and health authority (NMa, NZa) supervise the market, discipline behaviour that inhibits competition and control information transparency (Maarse, 2007).

- Information symmetry; Several attempts have been made to reduce information asymmetry in the Dutch hospital market through the publication of financial results, quality indicators, DBCs and other information valuable to patients. Also the Dutch Health Care Authority (NZa) plays a role in creating a transparent health care market (Concurrentie in de ziekenhuissector, 2003 & www.snellerbeter.nl).

- Switching barriers; the freedom of choice of a hospital or a medical specialist in

a hospital in The Netherlands is determined by the flexibility in the health insurance plan and the referral given by the general practitioner [10](Den Exter et al., 2004). The role of the health insurers as third-party purchasers for patients (selective contracting) is intended to stimulate more competition among providers to offer better care for the lowest possible price. Insurers should then contract the provider with the best offer to establish the best health plan. Patients can choose a new health plan on a yearly basis and should be accepted by every insurer for a basic package health insurance (Maarse, 2007).

- Product specifications; the provision of hospital care is to a large extent characterised by uncertainty (Arrow, 1963). It is important to make the process as transparent as possible, spreading information on quality indicators and a prospective payment system (DBC) can contribute to this (Concurrentie in de ziekenhuissector, 2003).

- Externalities; externalities are common in health care. For example in vaccination, it does not only benefit the person itself but also other people, this is not valued by the market. Intervention is necessary dependent on the participation rates, which is very high in The Netherlands, up to 95% (www.rivm.nl). Furthermore, the free rider problem is an issue in health care and to prevent it basic health insurance is compulsory (Den Exter et al., 2004).

- Long-term perspective and purchasing power of consumers; if patients cannot assess the long-term benefits from their hospital consumption very well and only value the short-term effects; they are not willing to pay the accurate price. Patients are then willing to forgo on certain activities, such as health insurance, as they cannot rate the long-term effects. Furthermore, patients should have enough resources available in order for the providers to offer those services in the market that they want to (Dijkgraaf et al., 2006). In the Netherlands health insurance is compulsory and purchasing power is guaranteed as health care offered in the obligatory 'health basket' is reimbursed by the insurer. Also, risk adjustment is provided for certain population groups (Den Exter et al., 2004).

10In case of non-emergency, to access medical specialist care, patients need to be referred by a GP (Den Exter et al., 2004).

- Knowledge of providers of the market; all existing and new providers have access to the existing resources/technologies in the industry and innovations can spill-over to other providers (Case et al., 1999).

It can be questioned to what extend market failure would be sufficiently addressed. The former and the current minister of health have indicated that a transparent pricing system is a requisite for profit distribution. This could be interpreted as a market where products offered are well documented (product specifications) and quality and prices are transparent (information symmetry). The Netherlands Bureau for Economic Policy Analysis (CPB) evaluated in 2007 the reforms in Dutch health care. Patients have actively participated in evaluating their health plans and switching insurers however in doing so information on quality, prices, performance and coverage are needed. Yet information supply by health insurers but also providers was not satisfactory. Furthermore the role of insurers as third-party purchasers is limited. Most insurers are afraid to loose customers when full packages are not offered, price differences among contracted and full packages are small and limited information is available to contract providers on quality. Also consumers are still very risk-averse and do not trust insurers to contract their providers (CEP, 2007). More recently, the NZa reported that the DBC pricing system is not stable enough to be completely liberalised. They opt for partial liberalisation with yardstick competition and a fixed budget component at least until 2010[11] (De Grave, 2008). Although it can be questioned under which conditions the market is transparent enough to be liberalised even further, at this point most issues do direct at problems regarding quality information and information asymmetry overall which need to be improved.

2.3 Empirical Evidence: For-Profit Hospitals

In this section an attempt is made to outline a selection of empirical studies of the effects of for-profit organisations with a focus on investor owned hospitals and the public goals. Although effort was made to seek the most relevant and recent studies, it should be noted that most studies are performed during the 1980's and 1990's in the US when conversion to the for-profit status was popular.

[11] The DBCs which fall in the group with a yardstick can have price negotiations but are subject to a revenue-cap. More information see: NZa, 2007.

2.3.1 Efficiency

It could be expected that the allowance of for-profit organisations in the hospital market could lead to increased efficiency. It could stimulate the entrance of new providers and these new providers are expected to be more competitive than not-for-profits. As for-profits deal with outside investors/owners and inefficient behaviour can lead to bankruptcy and take-overs, these firms are more likely to reduce prices closer to the marginal cost and allocate resources as efficiently as possible. Efficiency can be measured using different techniques. In this section efficiency measures are only related to the financial management of (for-profit) hospitals[12]. Younis et al. (2001) found that for-profit hospitals performed superior to their not-for-profit counterparts in hospital profitability, measured by the return on assets and controlled by a number of variables. Previous studies (Watt et al., 1986 & Sear 1991 & 1992) discussed by the authors suggest that profitability is reached through appropriate cost reductions such as shorter length of stay or lower wages per patient day. No indication is given on how this affects quality or if accessibility is affected. Surprisingly some researchers conclude that private for-profit and private not-for-profit hospitals are not so different from each other. Sloan (2000) has systematically reviewed a large set of studies on the performance of hospitals and his most striking result was that for-profit and not-for-profit hospitals are very alike. Most likely this is due to the competitive pressure of the presence of for-profits in the hospital market which stimulates not-for-profit hospitals to perform more like for-profits. The magnitude of competition determines most of the dimensions such as efficiency, profitability, price setting and offering uncompensated care. Shen et al. (2005) have performed a meta-analysis to review the literature on the financial performance of for-profit, not-for-profit and government-owned hospitals in the US since 1990. They found that often large differences among the ownership forms can be explained by weak model specifications rather than actual differences in variables. On average, there is little evidence to suggest any difference in costs, however for-profits do tend to generate more revenue and profit than not for-profits. An important issue in the evaluation of for-profit performance is the performance of

[12] Note however that superior financial performance could also indicate that hospitals are asking excessive prices or select only low risk patients which are evaluated in the other public goals. Efficiency is therefore a broader concept than only the financial performance of hospitals and because of its interaction with the other goals difficult to measure. See 0pg. 1 for a further discussion of efficiency in the case studies.

hospitals converted from the not-for-profit to the for-profit status. Cutler and Horwitz (1998) have evaluated a series of hospitals converted and concluded that the primary reasons for conversion were increased financial status and a changed business culture. The results also suggest that for-profits have been able to reduce costs better than not-for-profits while there is no evidence to suggest that quality has been reduced during the process. Although for-profits tend to be more efficient, the authors report that a large part of the additional revenues is suspected to be generated from so-called loopholes in the reimbursement system which they consider a loss to society. An important aspect addressed by Cutler and Horwitz (1998) is the spill-over effect for-profit hospitals create. For-profits and not-for-profits influence each other's actions. On the positive side this means that for example any efficiency gains established by for-profits stimulate not-for-profits to critically evaluate their processes as well. However on the other hand any negative behaviour of for-profits such as the selection of profitable services can also be taken over by the not-for-profits.

2.3.2 Quality, accessibility and continuity

From the above section it can cautiously be assumed that for-profits can be more profitable than not-for-profits, yet the question remains how this is done and how this relates to the other public goals. Sloan (2000) argues that even if you can successfully conclude that for-profit hospitals are more efficient than not for-profits it should be taken into account that difference could result from various sources[13]. This chapter already indicates that when certain market conditions are not met, for-profit organisations can display behaviour which affects the public goals while still being efficient. When evaluating the empirical studies on the negative effects outlined in Box 2.1, a straightforward answer on whether for-profit organisations are harmful in the hospital market cannot be formulated. Dijkgraaf et al. (2006) have analysed several empirical studies on for-profit and not-for-profit hospitals. Studies reviewed do conclude that when efficiency is reached this is through cost reductions (Sloan, 2000 & Kessler & McKlellan, 2002), yet it could still be harmful to the other public goals. In terms of quality, the problem is that it is difficult to define, measure and verify. Most empirical studies cannot provide an unambiguous result. Although Dijkgraaf et al. conclude quite similar on accessibility, there are signs that accessibility problems

[13] Possible sources suggested are: competitive advantages, community benefits, teaching, research; slack, quality; and case-mix severity

could occur in markets dominated by for-profits, where uninsured patients are more often refused. Horwitz[14] (2005b) has classified a group of services as relatively profitable, unprofitable or variable. Analysis shows that for-profits are more likely to offer relatively profitable services, while government hospitals often offer unprofitable services. Although all types of hospitals have to be concerned with generating revenues to operate, the Horwitz study implies that for-profits respond more to profitability than the other types of hospitals. Silverman & Skinner (2001) performed a study on DRG upcoding by for-profit and not-for-profit hospitals. They conclude that for-profit hospitals on average upcode more than not-for-profits as it cannot be explained by patient health status or case-mix. They also indicate that upcoding behaviour by not-for-profits is related to the presence of for-profits in the market. Finally, continuity is measured by exit rates, as researchers expect that for-profit hospitals are more sensitive to changing market conditions. Results show that these hospitals have higher entry and exit rates than not-for-profit, taking into account that the difference increases when competition is fiercer (Chakravarty et al., 2005 from Dijkgraaf et al., 2006).

2.4 Conclusion

For-profit organisations perform most efficient when there is either no market failure present or its negative effects are effectively addressed by government instruments (preventing contract failure). However in case of contract failure for-profits can still be efficient but have an incentive for negative behaviour affecting quality, accessibility and continuity. Therefore the conditions under which for-profits could be allowed are dependent on how well the public goals can be guaranteed by either the market or by government interference. This has been analysed for the Dutch market (Table 2.1) and it can be concluded that especially in terms of addressing information asymmetry (through DBCs and information supply), government action still needs improvement.

[14] Also reviewed by Dijkgraaf et al., 2006

Table 2.1

Market conditions	**Market failure (Health care in general)**	**Government action taken in The Netherlands**
Competition	• Patients are reluctant to switch • Concentration in urban areas	• Deregulation of capacity planning (WTZi) • Competition Authority (NZa & NMa)
Information asymmetry	• Imperfect/limited information • Doctor-patient relationship • Not a reputation or experience good	• Publication of information: quality, financial results etc • Case-based payment (DBCs) • NZa
Switching barriers	• Dependent on insurance plan or GP • Doctor-patient relationship	• Publication of hospital information
Product Specifications	• Uncertainty	• Case-based payment (DBCs)
Externalities	• Free rider problem	• Information publication • Compulsory insurance
Long-term perspective/ buying power		• Compulsory 'health basket' • Subsidies
Knowledge of providers	• Uncertainty	• Risk adjustment system

Also, empirical studies are examined on hospital performance on the public goals. There are studies which show that ownership has no influence on performance but there is a tendency for for-profit hospitals to have a better financial performance than not-for profits. Yet when good financial performance is reached through high prices or patient selection affecting other goals, this is not referred to as efficient. Most studies on hospital financial performance do not refer to how profitability is reached and how the other goals are affected. Some studies that do indicate a cause mention that appropriate cost management has led to improved financial performance. Therefore, very cautiously a link between efficiency and ownership is assumed in this thesis. Additionally, it should be noted that studies are mostly US-based, goals such as quality and efficiency are hard to measure and more research is needed for empirical outcomes in the (individual) European markets. Lastly, concerns can still be raised that through behaviour such as upcoding, selection of services public goals can be threatened, also in Europe.

3 Equity Financing

3.1 Introduction

For-profit organisation could be allowed in a hospital market dominated by not-profits under the condition that public goals are largely guaranteed by either the functioning of the market or state interference. Allowing for-profit health care and the distribution of profits would provide hospitals with the opportunity to attract new funds from public or private equity investors, equity financing. Literature on hospital equity financing is limitedly available therefore the subject is mostly discussed for organisations in general.

3.2 Equity Financing Defined

3.2.1 Public equity

Textbooks often define certain concepts in financing differently. Therefore it is necessary to state what is meant by equity financing in this thesis. In short, the value of a firm is determined by its financial structure; debt and equity. Debt capital is those funds raised through loans and equity capital is all the capital provided by the firm's owners (Brigham & Daves, 2004). Ross et al. (2002) indicate that there are two methods of raising capital; internal financing and external financing. Internal financing are funds created from internally generated cash flows. The accounting definition is the net income plus depreciation minus possible dividends. External financing refers to any funds provided by third parties to a company. Both debt and equity financing are therefore external financing tools. Funds followed from contractual obligations to repay the corporate borrowing are on the debt side of the financial structure. Debtholders have the first claim on the asset of the firm. Debt is often acquired from banks but can also come from other creditors. Equity financing differs from this as it relates to non-contractual claims to any residual cash flows of the firm. The firm receives funds in exchange for a share of ownership. Equity financing differs from equity, as the first refers to giving up a part of the firm to raise funds while equity can also consist of charitable contributions. Not-for-profit firms can thus only raise equity through charity and other donations. For-profit firms can also raise equity by issuing stock which individual or groups of investors can buy. Ross et al. (2002) present three forms of equity through the issuance of stock;

- Common stock; an equity ownership of the firm including voting rights. Common stockholders are last in line in the distribution of earnings or assets after debtholders and preferred stockholders.

- Preferred stock; these stockholders are given priority over common stockholders in the payments of dividend. Often dividend rates are fixed and normally preferred stockholders do not have any voting rights.

- Warrants; a type of security which gives the buyer the right to buy common stock of the specified company at a fixed price for a given period of time.

The process of 'going public' is subject to a set of rules and listing requirements which are specific for the exchange the organisation is requesting listing on. The Euronext [15]requires the following listing process:

1. Listing agent; the listing agent (sponsor) advises the organisation applying for listing, communicates and mediates with Euronext, regulatory authorities and any other actors in the process. The agent is often an investment bank and should be a member of the Euronext Cash Market[16].

2. Financial statements; submit financial statements according to recognized or IRFS accounting standards.

3. Application; the listing agent applies for listing at Euronext and a regulatory authority. For the latter a prospectus[17] should be submitted. The following listing requirements apply:

    a. >25% of the shares should be offered to the public or 5% if it represents at least €5 mln.

    b. Three year of financial information should be published.

[15] As The Netherlands is the first point of reference for this thesis, Euronext is chosen of which among other Amsterdam is one of the trading places (www.euronext.com).

[16] Division of Euronext which handles all stock related activities (www.euronext.com).

[17] A document containing information on the company 'going public'. It should enclose the facts that an investor needs to make an informed investment decision (www.investopedia.com).

c. Accounting standards used should be recognised by the country it is registered in.

d. The ongoing obligation of publishing annual and half-year reports.

e. The ongoing obligation of disclosing market sensitive information related to the company of its financial instruments as soon as possible.

3.2.2 Private equity

Equity can be raised by firms which are not listed on the stock market, commonly referred to as private equity investments. A leveraged buy-out (LBO) is also a possibility. An LBO occurs when an investors or a group of investors acquires a company listed on the stock exchanges and delists it. Often the acquisition is financed with a large amount of debt and equity is provided by the private equity investors. Management buy-outs (MBO) are a form of LBOs where the existing management of a firm takes a large controlling position in the company in order 'to go private'[18]. The role of the investor is more active, using a value-added strategy. The process of an equity investment involves a private offering, selling unlisted company shares directly to the investors or to a private equity fund, a group of investors who pool together capital to make investments. Bance (2002) and Grintblatt & Titman (2002) distinguish different forms of private equity:

- Venture capital; investing in organisations which have undeveloped or developing products, services or revenues (entrepreneurial investments).

- Buy-out; the acquisition of a significant proportion or a majority control of the organisation, often with a change of ownership. Buy-out investors often target mature firms which already have established business plans, expecting to expand.

- Special situation; investments resulting from one-time opportunities from changing industry trends, government regulations, distressed debt, project

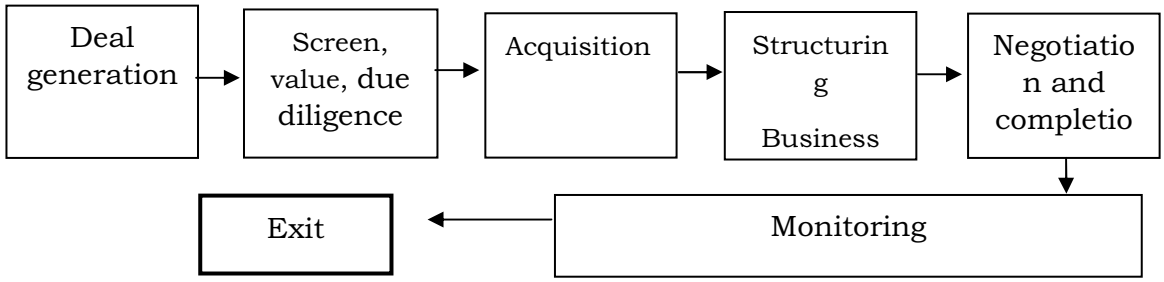
[18] 'Going private' is referred to as the process of a listed company which is delisted from the stock exchange. As opposed to the process of 'going public' where companies seek a stock exchange listing (Ross et al., 2002).

finance[19], equity-linked debt[20] and leasing.

- Merchant banking; negotiated private equity investments by financial institutions.

(Source: Bance, 2002 and Grinblatt & Titman, 2002)

A private equity can be held by individuals and families in small businesses, however more common are large companies/institutions investing in private firms. Private equity investors involved in the daily and strategic operations of the organisation they take a position in the supervisory board and establish a strategic plan. Everything in cooperation with the remaining management to increase the value of the firm in the medium-term (3-7 years). Therefore firms are targeted which are either in a growth phase or in financial distress or they believe in another way certain efficiency gains can be made. Eventually the returns are cashed through a merger or sale, an initial public offering (IPO) or a recapitalisation[21] (Grinblatt & Titman, 2002). A typical private equity investment process consists of the following steps:



These steps are a general overview (simplification) and are based on the processes described by various private equity investors mentioned in the next section in Table 3.2 and the article of Wright and Robbie (1998). The process consist of gaining access to projects of interest, this is dependent of the situation in the market and preferences

[19] Financing of long-term infrastructure or industrial projects through a complex financial structure using equity and debt, where debt is repaid through the operating cash flows of the project instead of assets or credits (Grinblatt & Titman, 2002).

[20] The holder of such an asset receives both payments from the interest on debt and the performance of an equity index (Grinblatt & Titman, 2002).

[21] Buy-out of the owner of the firm (Grinblatt & Titman, 2002).

of the private equity investor. After a firm is targeted the process of screening and valuation is started. Due diligence is commonly applied and refers to the process in which a potential acquirer values the performance of the company it wants to acquire. After acquisition, the deal is structured and private equity investors are usually actively involved in the management of the acquired firm and a business plan is set. Private equity investors use several mechanisms to control commitment such as compensation based on value creation or a specific clause set on profit distribution. With regards to profit distributions, in the first phase of the deal, cash flows are often reinvested back in the company. In a later phase profits are divided among both parties however investors also decide in this phase to decrease its own controlling stake in the company and let management deal with more issues themselves. Before exiting the investment is constantly monitored in order to oversee the returns and to set the timing to exit.

Box 3.1 Private equity versus Hedge funds

Often private equity investments are associated with aggressive investors which acquire companies in order to quickly take out everything what is profitable. In contrast, there are several studies which also indicate that private equity can stimulate entrepreneurship and contributes to profitability and employment (Cumming et al., 2007). The question remains where these contradictions come from? Confusion can come from the fact that private equity is often confused with hedge funds. Obviously, both private equity investors and hedge funds pursue to reach a certain returns however hedge funds require these returns to be higher and earned more rapidly. There are many different types of hedge funds yet they commonly take minority-shareholder position in public companies (<5%). On the contrary, private equity investors take a majority position in companies and are committed for a longer period. Returns are generated from renewed business plans and strategies which are developed with the management. Therefore private equity investors can account for more commitment of the management than hedge funds (Kuiper, 2005 & Dai, 2007).

3.2.3 Intermediary conclusion

In a nutshell, Table 3.1 provides a summary of internal and external financing and public and private equity as stated above.

Table 3.1

Internal financing	Internally generated funds
External financing	Debt financing • First claimants

	Equity financing
	• Charity contributions (not-for-profit)
	• Public equity; issue stock (equity financing)
	  • Common stock
	  • Preferred stock
	  • Warrants
	• Private equity
	  • Venture capital
	  • Buy-out
	  • Special situation
	  • Merchant banking

3.3 Equity Financing: Advantages and Disadvantages

Using equity financing means that organisations and hospitals are confronted with a specific set of opportunities and risks. Public equity financing would require a listing on the stock exchange ('going public or Initial Public Offering, IPO) and also private equity has certain specific features which are discussed below.

3.3.1 Advantages and disadvantages of public equity

In its analysis on the privatisation of Schiphol, Lazard (2005) reports several benefits and risks of 'going public'. Also Grinblatt and Titman (2002) and Huyghebaert and Van Hulle (2005) discuss these issues. All three articles deal with different industries, however most advantages and disadvantages can be generalised and made applicable to the hospital sector. This would lead to the following advantages:

- Access to a ready source of capital. This is important when there is a time lag between the need for cash and the generation of cash from debt financing or the borrowing capacity is reached. Also access to capital can be a competitive advantage. An organisation and a hospital cannot survive on just debt and has a need for equity, in any form, as well. Therefore, when an organisation is unable to obtain sufficient equity in order to undertake the activities or investments it wants, it could be, when in a competitive environment at a potential competitive disadvantage to organisations which can. Translating this to the hospital sector, for-profit hospitals would have an advantage over not-for-profit hospitals in terms of access to capital.

- Transparency and credibility; the ongoing obligation to publish financial and operational information creates transparency and credibility especially important for customers, suppliers and employees. Also an IPO could provide good publicity.

- Liquidity; an organisation and its shareholders in principle always have the opportunity to withdraw their shares. Therefore the publically traded organisation is more liquid than other types.

- Incentivisation; shares can be used as in an incentive system to management and employers. Even other stakeholders can be stimulated to participate in the organisation.

- Equity financing could be cheaper than debt if investors are eager to invest in the organisation.

- Information and monitoring; in daily trading, investors give their judgments on the organisation's prospects and therefore provide important information on the value of the firm. Also the market functions as a monitoring device by evaluating managerial decision making.

Costs, risks or disadvantages of 'going public' mentioned by the authors are:

- Costs of 'going public':

    - Adverse selection costs; costs following from information asymmetry when investors are less informed than the issuers of stock on the true value of the organisation which in turn causes underpricing[22].

    - Costs of issuing stock; listing fees, underwriting commissions and management time.

    - Ongoing expenses; cost of reporting information, cost of dealing with shareholders and other administrative expenses.

[22] The difference between the IPO offer price and the price of the first trade. Underpricing occurs when the pricing of the IPO is less than the market value (Ross, et al., 2002).

- A large part of the company information has to be made public. Before, during and after the process of an IPO, private company information is made public which private companies do not have to do. Occasionally this information could be commercially sensitive.

- Public pressure: a public company is expected to maximise its share price, perform consistently and financially well. This can lead to a short-term perspective. Additionally, a publically traded company is more 'visible' than a private and therefore any managerial decisions are also always under the judgement and monitoring of the market which can be perceived as negative.

3.3.2 Advantages and disadvantages of private equity

The agency theory provides an important motive for organisations to choose private equity over public equity. The theory describes how agency costs can arise when a principal hires an agent to perform a service on their behalf. For example in public equity, agency costs exit in the differences of interest between the shareholders (principal) and management (agent) and in the difficulty to monitor and evaluate managers' behaviour. In a principal-agent relation where ownership and control are separated, managers have an incentive to pursue their own (short term) interests and choose projects which have no economic value to the firm but only bring personal value (such as prestige). Managers often also have a higher risk preference. In private equity, ownership and control is largely combined (investors often take a position in the board), interests between managers and owners are therefore more realigned. Also, the presence of a large controlling stake in the company by the equity investor, often combined with an active involvement in management, functions as a monitoring and control device on manager's behaviour. Whereas, in public equity, the small controlling stakes shareholders have, often lead to an underinvestment in management monitoring activities. (Renneboog et al., 2007).

Literature also points to other advantages of private equity (Renneboog et al.,2007 & Ross et al., 2002):

- Simplicity; Stock exchange listings produce several transaction costs (see disadvantages 'going public'). 'Going private' would reduce a large amount of the costs associated with a stock listing.

- Takeover defence; It has been reported that some listed companies 'go private'

through an MBO in order to prevent a hostile takeover.

- Undervaluation; if management expects the market does not value the organisation well and the share price can be undervalued, private placement is an option. Undervaluation can be a consequence of an illiquid market or the inability to attract large investors or institutional investors to raise equity on the capital market.

- Increase managerial outlook; stock prices react quickly to new information, therefore companies have to have a strong focus on the short term. By 'going private' management has the opportunity to concentrate more on long-term objectives.

- Shareholder participation; public equity investors consist of a large diversified group of investors with often small non-controlling interests in the organisation. Private equity investors participate actively and frequently take a position in the management team.

The evaluation of the structure of private equity has led to conclude that such an investment often involves strong participation of the investor. It could be expected that some organisations see this as a disadvantage and a trade-off should be made between the inserted capital and knowledge of private equity investors and controlling stake in the firm. Other disadvantages should be looked at from a social perspective. Box 3.1 already indicated that private equity is not as risky as hedge funds. Yet certain risks should be addressed for private equity as well. Although private equity investors claim that their active involvement would lead to a common interest: increase of company value, questions can be asked. First where does this additional value come from in the middle term? Especially in organisations serving a public goal, there is a potential risk this goal is harmed in the process of creating additional value over a pre-determined time span. Additionally, the private equity investors' middle term perspective could leave them neglecting the long-term prospects.

3.4 Discussion: Public or Private Equity?

Existing literature provides little guidelines on which type of investor is most suitable for hospitals or the health care market while the choice for public or private equity can be rather organisation specific. In general a conversion to a for-profit organisation already imposes risks, as outside owners will have more control over the organisation.

A major advantage of public equity is not only the financial flexibility of quick access to capital but also directs at the information asymmetry problems in health care. Many investors find that being public enhances credibility by displaying up-to-date information (financial information but also quality indicators are important) and failing to do so will be punished by loss of investor's trust. Even so, notice that the first Dutch hospitals distributing profits (either public or private equity) will be high profile and therefore experience pressure to perform well either way. Ultimately only public equity hospitals are truly 'public'. These hospitals have to disclose all information (which comes at a cost) and will be constantly evaluated by the market through its stock price. Theoretically, the public market should value a company correctly, however in practice public investors can be more sceptical, especially to noise. Therefore the more complex the organisation, its business plan and the market is, the more difficult (and expensive) it can be to raise capital as market evaluation is also more complicated as well. Public investors are sensitive to credibility, if a company performs well, investors are willing to supply capital, the paradox being that public equity capital is mostly available when not needed, and less when it is mostly needed (Moon, 2006). Another mentioned advantage of public equity's over private equity is the lower investor's controlling position. Private equity investors often take a position in the management board and are actively involved. Although this can be seen as an advantage, after years of independence most hospital boards and physicians would probably prefer outside owners to be as little involved in daily health processes as possible. Overall, public equity is not a good option for hospitals experiencing financial distress, cyclical volatility or to fill in financial gaps. Then it is difficult to raise funds on the capital market, to comply with information standards and the hospital is an easy prey for (hostile) take-overs. Rather public equity is suitable for average to good performing hospitals which need the capital market for additional funds for new investment (Ross et al., 2002 & Moon, 2006).

The success of private equity investors is directly linked to the organisation it invests in. Private equity could be value-adding to hospitals if they can seek out a strategic partner with either knowledge or experience in health care. The target company is often subject to thorough screening (due diligence). Although burdensome, it can benefit the hospital as it has the opportunity to communicate its position on providing care and its preferences on the investor's position. Also an informed investor is more committed and valuable. As opposed to public equity, private equity is more suitable

for companies with financial and credibility difficulties as. Also not all hospitals are willing or have the capacity to comply with the listing requirements of the exchange. Those hospitals would prefer private equity. Yet a major component of private equity should not be neglected. Even though investors and managers can create a long-term business plan during the time of private equity ownership, most private equity investors only have a middle-term perspective. They will seek an exit within a reasonable amount of time and with the exit a reasonable amount of return. Therefore private equity investors prefer to see a direct opportunity to gain from involvement, through reorganisation, new products/services, efficiency gains or other strategies to reach a certain return within the middle-term and not all hospitals can do so (Ross et al., 2002 & Moon, 2006).

3.5 Equity Financing and Health Care in The Netherlands

There are several reasons to expect that funds following from private parties (excluding charity) will play a more dominant role in health care in The Netherlands. Traditionally, not-for-profit hospitals have raised equity through operational surpluses (retained earnings), donations, subsidies and returns on investments. Yet with the possibility of increased pressure from competition and health insurers which could potentially lead to a decline in operational surpluses, there is a need for hospitals to have a strong financial basis. Also the loss of the financial safety net could have as a consequence that creditors are forced to set more strict criteria for providing loans to hospitals (Ministerie van Volksgezondheid, Welzijn en Sport, 2007b & Robinson, 2000). Finally, technological innovations on the one hand can make health care more efficient but on the other hand could demand higher initial investments. These reasons have stimulated hospitals and policymakers in the search for alternative financial sources. But why would investors be interested in the hospital sector? A major risk for investors and other newcomers is a changing political climate towards stricter regulations or maintaining the ban on profit distribution. In all likelihood, these are reasons why the private sector has not been very interested in the health care industry yet (except for the biotechnological and pharmaceutical industry) (ABN AMRO, 2007).

Public equity financing is not allowed to be used by Dutch health care providers but anticipating on expected reforms, there are hospitals which have indicated that public equity would be a method of preference for accumulating funds. Private equity

investors on the other hand are active in the health care market but only on a small scale. Table 4.3 shows an overview of private equity investments in Dutch health care provider projects based on information from the Dutch Association of Private Equity Investors (Nederlandse Vereniging van Participatiemaatschappijen, www.nvp.nl)

Table 3.2

Private equity investor	**Organisation (Health care providers)**
Greenfield Capital Partners	• HSK Groep (psychological disorders)
Meromi BV	• Slotervaart Ziekenhuis
PPM Oost	• Stichting Diaphora (assisted living for people with dementia)
Residex	• Sanacare Groep (dental care) • Mediferia (knee-joint treatment) • Medinova (orthopaedics, ophthalmology and plastic surgery)
Waterland	• Optima Zorg (Home care, maternity care)

The most striking example from the presented table above is the equity position in the Dutch hospital Slotervaart. The Slotervaart case has already been discussed in '1.1.3 The allowance of profit distribution?' and it shows that the structure of the hospital does not necessarily have to be for-profit in order to become interesting for large third parties. Nevertheless, Meromi's primary interest in Slotervaart will remain as an entrance position in the Dutch hospital market with an outlook on possible regulatory changes on the profit distribution. The limited interest of investors in hospitals today confirms that most private equity investors would want to have a certain amount of control in the organisation and return on investment which is in the not-for-profit business limited. They find that not-for-profit hospitals will often not generate as much sales as their for-profit counterparts. This disregards public equity as a for-profit status is a requisite for the issuance of stock (Ross et al., 2002 & Becker, 2007). If profit distribution would be allowed in The Netherlands and a hospital would like to attract private investors a conversion to the for-profit status is most likely. Today, the most dominant legal form in Dutch hospitals is the foundation ('stichting') which allows organisations to make profits but not to distribute it to third parties. There is however the opportunity to distribute revenues from one organisation to another, only if they also pursue the same social goal. If there is a need to issue stock, then two

types of organisational forms can be used; a private company (Besloten Vennootschap, BV) or a joint stock company (Naamloze Vennootschap, NV). Although the latter is suitable for the issuance of stock, as it allows the company to issue shares without registering who owns them. Yet both types of legal forms are subject to a series of requirements such as initial capital payments, dual management boards and corporate governance requirements. After conversion, the hospital has the opportunity to offer its shares on the stock market (Lazard, 2005).

3.6 Conclusion

Equity financing is an external financing tool which can be defined as any type of contractual claim on the residual value of the firm. A distinction can be made between financing through public and private equity with both types holding different sets of benefits and risks. The question remains whether equity financing will ever play a more prominent role in the Dutch hospitals sector. Although the actual allowance of profit distribution is a political issue, current policy focussing on market-orientation and decentralisation combining with the search for alternative sources of funds for hospitals has directed the focus on equity financing. Public equity is mostly suitable for hospitals with a stable or average to good performance as raising capital is the least expensive. Private equity is more beneficial for hospitals facing difficulties so that an investment partner can help to overcome this by supplying funds and knowledge without the organisation is being faced with the pressure of the capital market. Although it should be noted that hospitals with a stable performance can gain more from public equity as the investors' controlling position is less present, based on the overall findings in this chapter private equity is somewhat preferred over public equity for hospitals. Public equity would require hospitals to continuingly deal with the pressure from the capital market and complying with listing/reporting requirements. While private equity would allow hospitals to find a suitable investment partner and make arrangements specific for their situation and if preferable only in the short term. Overall, in practice the preference for either form could show different choices and is therefore further dealt with in the next chapter.

4 For-Profit Hospitals in Germany and the UK

4.1 Introduction

The analysis in this chapter is a case study of German and UK equity financed hospitals. A direct comparison among countries is difficult as health systems differ. Therefore the elements of the German and UK hospital markets relevant to for-profit health care are discussed first. As the literature review indicates, market conditions are an important issue in evaluating the for-profit hospital market. So market failure and government interference is specifically addressed. Then the individual cases are analysed evaluating the performance of investor-owned hospitals. The sub-question: How do the hospitals with public or private equity investors[23] perform in the UK and Germany? is answered. Ideally the hospitals should be compared to the not-for-profit hospitals from its own health systems. Unfortunately, due to data availability a thorough research is not possible. Where possible indicators are given on the performance and public goals of the not-for-profit hospital sector in these countries. Ultimately this will help to formulate an answer to how investors-owned hospitals perform in connection to the public goals. The analysis also takes into account the different forms of equity financing for hospitals, looking at the benefits, risks and suitability for hospitals.

4.2 The Hospital Market

4.2.1 Germany

The Health Care Market

The German health care system rests on the same principles as the Dutch system: solidarity and subsidiarity. Decision making is shared by several different parties in Germany; the federal government, the Länder, corporatist organisations of sickness funds, physicians, hospitals, dentists and other certified organisations. Often joint committees of local market players are formed to define benefits, set prices and

[23] Note that throughout this thesis hospitals with public or private equity investors are referred to as investor-owned hospitals, equity financed hospitals or hospitals with equity financing. This is a form of a for-profit hospital where hospitals can distribute profits to their outside owners but in this case where hospitals also have public or private investors who provide funds to increase equity.

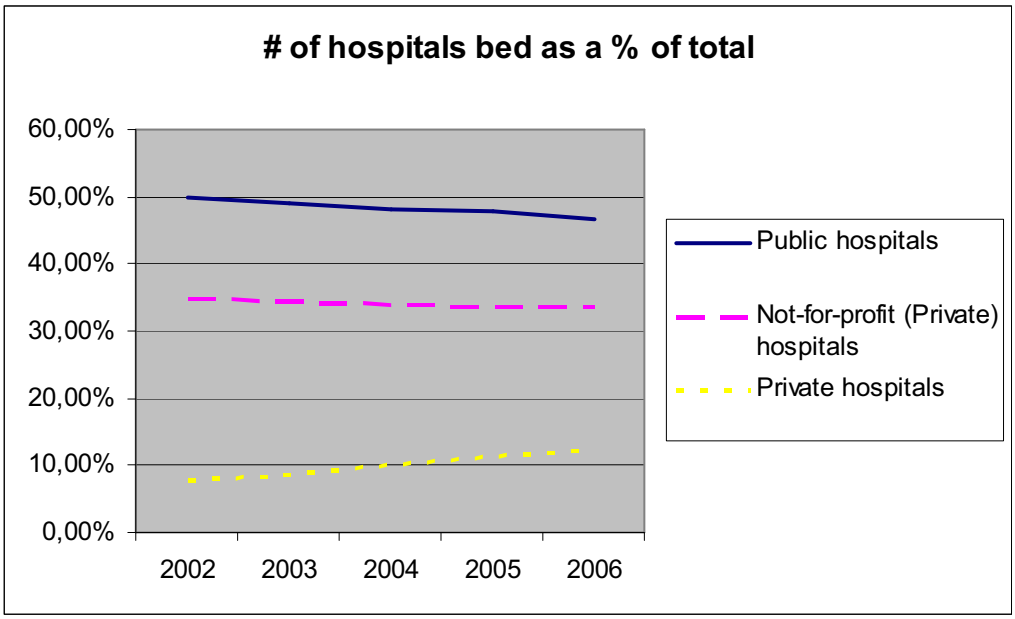
standards, negotiate contracts and control and sanction their members. The Statutory Health Insurance (SHI) is for certain population groups compulsory; low income, retired, unemployed and certain occupations such as artists, farmers and students. Within the SHI all applicants must be contracted (with the exception of some company-based funds). All German insurants are free to choose a physician or hospital and there is no official GP gatekeepers system. In order to create a level playing field, a risk adjustment system for health insurers was introduced in 1994; the risk structure compensation system. The system adjusts differences in population among insurers for age, sex and health status. It is however necessary to sophisticate the system further and use more types of risk adjusters. Recently, a high risk pool and subsidies for disease management programmes for chronically ill were added to the system (Van Kemenade, 2007 & Lungen & Lapsley, 2003).

For-Profit Hospitals and the Government

In the past, independent physicians were only allowed to provide polyclinic and ambulatory care where hospitals were only allowed to offer clinical care. Even though this separation has been lifted, several physicians and hospitals tend to hold to this division. The German hospital system has public, private not-for-profit and private for-profit hospitals[24]. Figure 4.1 shows that since 2002 public hospitals have lost market share while the number of private hospital beds grew. Yet not-for-profit hospitals still present the largest part of the hospital market.

[24] Note the difference between the categories. Public hospitals are owned by (local) authorities. Not-for-profit hospitals are "voluntary" hospitals owned by welfare organisations, churches, foundations or other charity organisations. Private hospitals have any owner besides the ones mentioned above and are free in the choice of the legal form (Statistisches Bundesamt).

Figure 4.1



(Source: Statistisches Bundesamt)

Private hospitals are freely accessible by all German citizens and about 90% of the for-profit hospital patients are insured through a social health insurance fund. The growing for-profit hospital industry is an important topic of debate, as the presence of private (and especially for-profit) beds is expected to grow. Local authorities (Länder) determine capacity in their region, yet overcapacity is very common. Competition among hospitals can therefore be fierce and new hospitals are rarely opened. Consequently, for-profit chains compete to take over hospitals in financial difficulty and reorganise it in order to make it viable again, using private capital. Public and not-profit hospitals lacking available funds often do not pursue these strategies. Authorities are also more willing to sell as in 2006 about one third of the public hospitals was in debt for which the government is responsible. (OECD, 2005a). Furthermore, it has been estimated that overcapacity has led to years of underinvestment and today an investment of almost €50 bln is needed. Public insolvency leads to private capital. Although it has been estimated that such a large amount cannot even be accumulated by the private players which are currently active in the German hospital market (Stumpfögger, 2007).

Since the hospital market has been subject to several mergers and take-overs, competition has to be regulated by the Bundeskartellamt. It came into action for the

first time in 2005, declining a take-over by Rhön Klinikum in order to prevent a dominant market position. It this sense the Competition Law provides the Cartel Office a tool to inhibit the acquisition strategy of private clinics. Future rulings will have to show whether this act will be used more actively to limit hospital privatisation (Schulten, 2006 & Stumpfögger, 2007). To promote competition even further, German authorities encourage better pricing and transparency. Hospital reimbursement changed from a budget to a DRG system where prices are set at the national level. The hospital prices are calculated by multiplying the DRG price by the federal base rate which is determined by combining local historical budgets. The DRG price is uniform at the national level and is calculated from average case-related costs based on a sample. The DRG price and federal base rate form the individual hospital prices, however the system is expected to converge to a national and uniform pricing system in 2009. Hospitals negotiate other surcharges such as for holding certain specialisations, innovative therapy or serving a remote area but also prices for day cases, with the health insurers (Busse & Riesberg, 2004). Secondly, regulation requires hospitals to report on a structural basis on quality (now once every 2 years). A group of representatives from the German health care market have produced a list of quality indicators, taking into account international standards and standards in German health care. One of the objectives is to publish the reports online in order to aid German patients in the choosing a suitable hospital and creating transparency in the market (Geraedts et al., 2007 & www.qualitaetsbericht.de).

4.2.2 United Kingdom

The Health Care Market

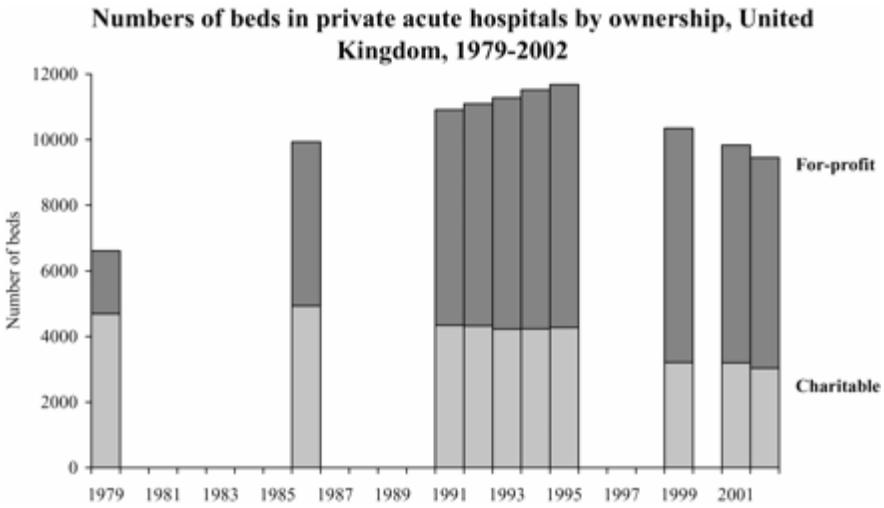
The principles of the UK health care system can be found in the principles set for the welfare state: social protection and the provision of welfare services on the basis of rights. The National Health Service (NHS) mainly organises the health care system, although several responsibilities are delegated to local authorise such as the counties. At the local level, Authorities and Trusts execute the strategic direction given by the NHS. At this level, hospital planning and financing through NHS budgets is also decided. The focus on decentralisation has led to a gatekeeping system in which the GP has to provide access to a specialist by referral, similar to the Dutch gatekeeping system. Most NHS funds come from taxation and a smaller part from employer and employee contributions. Even though all UK citizens have the right to coverage under the NHS, private insurance is also available (not-for-profit or for-profit). NHS services are free, yet co-payments are required for long-term and private care, pharmaceuticals

and ophthalmic services (Van Kemenade, 2007). During the 1990's a series of reform policies were initiated by the NHS in which competition and efficiency were the main themes. Two institutions are vital for the organisation of the reforms. First the Healthcare Commission which monitors the performance of public and private hospitals in the UK. The Commission is important to increasing transparency in the market as it allows visitors to access the last quality checks online and access nationwide benchmarks of hospitals. The website reports a vast amount of comparative data (quality indicators, management, patient treatment) for patients to make an informed decision and to trigger hospitals to evaluate their performance Secondly, the Competition Commission promotes and regulates healthy competition in the UK, also dealing with health care organisations (www.healthcarecommission.org.uk & www.competition-commission.org.uk). Competition in health care should be based on quality and patient focus. To enforce this strategy, several policy instruments were used: Payment by Results (PbR), Practice Based Commissioning (PBC) and Choice. Until 2004, health providers negotiated a block contract with local authorities in which a fixed amount was paid, irrespective of the activities delivered. The PbR system has a fixed price for every Health Resource Group (HRG, UK DRGs) which is determined for every activity in the hospital. Hospital income is therefore determined by the number of patients treated and hospitals should have an incentive to match costs made to the tariffs set. PBC provides, in addition to the GP gatekeeping system, more power to primary care providers as they are allowed to buy services for their patients. The final programme, Choice, refers to guaranteeing and enlarging patient choice by distributing information on several quality indicators of hospitals. Also, patients referred by their GP should have at least the choice of four providers. Efforts have been made to increase patient choice even further. Since April 2008 UK citizens have the opportunity to choose any provider (public or private) given that activities are offered at NHS tariffs and quality standards. (OECD, 2005a & Bosanquet et al., 2007 & www.nhs.uk).

For-Profit Hospitals and the Government

As opposed to what a national health care system would suggest, ownership of hospitals in the UK is diverse. Unfortunately since the early 1990's the UK government does not publish any data on private capacity. Macfarlane et al. (2005) has combined several sources in order to give an indication of the trends in the private sector and shows that for-profit ownership has declined since the mid-1990's, in line with a general trend in reduction of beds (Figure 4.2)

Figure 4.2



Private[25] providers have assisted the NHS to reduce waiting lists, especially in short stay surgery and several diagnostic procedures. The UK has public, private not-for profit and private for-profit hospitals. For-profit hospitals are often organised in a hospital chain or as an independent centre within a NHS hospital. In subsequent years, the NHS acknowledged the added value of the private sector through the 'Concordant' which allow Health Authorities to purchase private health care to reduce waiting lists. This is achieved by contracting private providers and 'spot purchasing'[26] (Netcare, 2006). In 2002, in an attempt to establish better value for money contracts and long-term commitment, the NHS invited foreign bids to set up hospital facilities in the UK and partner up with the NHS (Department of Health, 2002). It targeted to outsource approximately 15% of elective surgery to private parties by 2014. Today, patients have the opportunity to seek medical specialist care from local hospitals, NHS foundation Trusts[27] and private hospitals contracted by the NHS (OECD, 2005a). As indicated before the Choice programme has expanded this list in April 2008 to all private hospitals, securing accessibility even further. Another public-private project is the Private Finance Initiative (PFI) in which private funds and expertises are used to finance, build, manage and operate NHS project, mainly hospitals (College Bouw Ziekenhuisvoorzieningen, 2004).

[25] Note that in this section private for-profit and not-for-profit providers are targeted by the NHS.

[26] For-profit providers can buy-in a 'spot' to offer NHS patients health care (www.nhs.uk).

27 A new type of NHS Trusts which are given more financial and operational freedom but are under the supervision of the NHS (www.nhs.uk).

4.2.3 Intermediary discussion

In the first section, the hospital markets of Germany and the UK are shortly outlined, specifically addressing issues relating the for-profit hospital market. As a for-profit market exist, these countries can be faced with negative effects resulting from market and contract failure and the public goals in health care can be threatened. In chapter 2 it is already concluded that in The Netherlands not all issues arising from this are addressed sufficiently and contract failure would exist if for-profits are present. This can also be analysed for the German and UK market while here for-profit organisations are active in the hospitals market (Table 4.1). Both governments have used quite similar strategies, yet government action is also highly dependent on the underlying system. The patient choice in the UK depends mostly on NHS contracts while in Germany, the patient is more independent. In the Dutch market efforts are still made to address market/contract failure before for-hospital hospitals are allowed while the UK and Germany for-profit organisations are already part of the system. Also in the case countries difficulties arise from the specific features of the health care market as discussed in chapter 2. In Germany and the UK, contract failure is mainly present due to the improvements which could be made in addressing information asymmetry. In Germany the supply of quality information is still in its initial phase and needs to be performed on a more regular basis. NHS hospitals are assessed on a more regular basis, yet performance analysis of private hospitals and even contracted private hospitals is still very limited (Healthcare Commission, 2007a). Overall, most governmental action and reforms in Germany and the UK are realised in the last years. It is save to say that the Dutch approach is rather cautious and prefers to set out a complete framework before for-profit hospitals are (considered to be) allowed.

Table 4.1

Market conditions	Germany	UK	The Netherlands
Competition	Private (for-profit) providers Bundeskartellamt	Contracting private (for-profit) providers Competition Commission	Deregulation of capacity planning (WTZi) Competition Authority (NZa & NMa)
Information asymmetry	Report on quality	Healthcare Commission	Publication of information: quality, financial results etc Case-based payment (DBC's) NZa
Switching barriers	Direct access to hospitals	Choice programme	Publication of hospital information
Product Specifications	DRG	HRG	Case-based payment (DBC's)
Externalities	Insurance only compulsory for certain groups	NHS largely paid by taxes	Information publication Compulsory insurance
Long-term perspective/ buying power	Social health insurance for certain groups	NHS services are covered. Private services need additional insurance.	Compulsory 'health basket' Subsidies

4.3 Equity Financing and the For-Profit Market

The upcoming section analyses the performance of the hospital market using equity financing through the selected hospitals as an indication of the overall performance of the (equity financing) market. As already indicated for-profit ownership and equity financing are two connected subjects and are in this thesis largely analysed together. Therefore, general data on for-profit hospitals are used as well, next to a selection of hospitals with equity financing investors (Table 4.2). The hospitals are first selected on being private or public equity, offering hospitals services in either the German or UK market up until 2008. Lists are first created from the Thompson One database and Compustat. Speciality hospitals are excluded in the first selection except when part of a chain holding other hospital types. Schmidt et al. (2003) present a list of hospitals relevant for the private German market which has been used to complete the selection. Ultimately, data availability will drastically restrict the selection of hospitals included and therefore a complete overview of the industry cannot be given. Although

in the past listed hospitals have been present the UK market and German private equity hospitals do exist at the moment the selection leads to a division between German public equity hospitals and UK private equity hospitals.

Table 4.2

Germany	**UK**
Public equity	***Private equity***
Fresenius (ProServe)	Capio UK
Mediclin	General Healthcare Group
Rhön Klinikum	Spire Healthcare

It has been (cautiously) assumed that hospitals using equity financing and thus for-profit hospitals are more efficient than not-for-profits. It could therefore be expected that the for-profit hospitals in Germany and the UK show a good financial position. Yet it should also be accounted for that for-profit organisations can display behaviour which has negative effects on quality, accessibility and continuity when contract failure is present. In 4.2.3 it is assumed that there is not sufficient action taken (yet) to address market failure in both countries and contract failure is present. Therefore the public goals can then be threatened by the presence of for-profit hospitals through negative behaviour (detailed explanation is given in pg. 1). The performance is then measured by analysing the effect on the public goals outlined in the first chapter (1.2 *Problem Definition*, pg. 1). As all four goals can be analysed on several dimensions, the amount of indicators per goal is limited. Indicators have been chosen based on earlier research (see 2.3 Empirical Evidence: For-Profit Hospitals), possible negative effects of for-profit hospitals on the public goals and the availability of data. Table 4.3 provides an overview. The measurement of efficiency needs further explanation. As seen from the empirical literature on hospital performance, research often attempts to measure efficiency with the financial performance as a proxy. Although this is also the case for this thesis it should (again) be noted that good financial performance could also point to high prices or patient selection. Due to the fact that in the section on accessibility these issues are also addressed and in Germany and for a large extend in the UK prices are standardised at the national level, it is assumed that the financial performance is appropriate for now. For public equity hospitals financial information is often freely available (due to regulation) and the financial performance can be measured through ratio analysis. Private equity investors disclose less information and the analysis is limited to other available (financial) data. A very important but also a challenging public goal is quality. Here, the definition refers to quality on outcomes

where the variable is measured by prevention of avoidable mortality and morbidity, improvement of quality of life and patient satisfaction. A large scale quality analysis is outside the scope of this thesis and the focus is limited to studying indicators related to the first and last measure. As outlined in the first chapter accessibility is a wide concept and not all issues in accessibility are dealt with by a perfect market. Even if a market functions effective, prices can be high as it reflects the actual costs. Although it is expected that in Germany and the UK high prices are less problematic, it should be taken into account when addressing the measures outlined in Table 4.3. Continuity is approached as in Chakravarty et al. (2005) by measuring (the possibility of) hospital exits/bankruptcies.

Table 4.3

Measure	Explanation	What to measure	Indicators
Efficiency	Resources used vs. outcomes	Financial performance	• Ratios: profitability, liquidity, solvency (Public equity) • Other: (Private equity)
Quality	Quality offered	Quality skimming Patient satisfaction	• Quality outcome data • Patient reviews
Accessibility	Access to hospital care	High prices, upcoding, cream skimming	Evidence for: • Upcoding • Prices • Patient selection
Continuity	Long term presence	Bankruptcy	• Exit rates • Bankruptcy/debts (private equity)

As a final note, results should be taken with some caution as the selected sample is small and accumulated data for the hospital sector sometimes refers just to the private sector, including hospitals with or without equity financing.

4.3.1 German hospitals

As opposed to the Dutch hospital market, German hospitals can have public ownership[28] in terms of (local) authorities being the major owners. Private hospitals are organised as "Gesellschaft mit beschränkter Haftung" (GmbH) comparable to the

[28] Note that in business public ownership is referred to a company listed on the stock exchange, where its shares are publically listed. Yet in this case it is referred to as ownership of authorities such as municipalities or other governmental bodies. Private organisations are then all hospitals with non-governmental owners and can be either for-profit or not-for-profit and have equity financing or not.

Dutch 'Besloten vennootschap, B.V.'. A GmbH cannot acquire a stock listing but can have shareholders who share in the profits. A variation of the GmbH is the gGmbH where the 'g' stands for gemeinnützige, relating to a not-for-profit but private organisation. An increasing proportion of the German hospital market is private, although not-for-profit remains the dominant form. The proportion of hospitals having external investors is also limited, especially to public equity. Public equity hospitals are organised as an "Aktiengesellschaft" (AG) which is the German form for a corporation limited by shares where the organisation is owned by its shareholders and stock may be traded. It is comparable to the Dutch NV. Often listed companies are valued in size through the market capitalisation[29]. There are no official numbers available on the proportion of legal forms used but Hospital Barometer studies show that about 37 % of the whole hospital market is organised as a gGmbH compared to approximately 0,7 % AG and 17 % GmbH. Although it should be noted that public hospitals can have a gGmbH or GmbH as a legal form as long as the majority stake is in hands of public authorities. Therefore legal form does not always reveal ownership. In the private hospital market, the GmbH form (56,9%) is the most popular (Blum et al., 2007). A 2007 study by the Bundesärtzekamer reports that there are several hospitals which were formally privatised, for example the legal for of GmbH was taken, however often local authorities remained having a majority stake in the hospital (Bundesärtzekamer, 2007).

Over the years, German authorities have loosened full-cost recovery policies, pressuring hospitals to take on more financial responsibility. Hospitals thus have to turn to external capital generation. Yet the Basel II[30] regulation has increased credit costs for bank loans with high risk and often the guarantees of the hospitals such as local authorities and churches that reduce this risk are facing financial problems themselves. Several public hospitals are therefore subject to take-overs by non-

[29] The market capitalisation provides an indication of the economic size of the company valued by the capital market (or investor's opinion). It is calculated by multiplying the number of shares times the share price on April 30th 2008 (Ross et al., 2002).

[30] Basel II is an international banking standard to reduce the risk banks face. It holds risk and capital management regulation based on three pillars: (1) minimum capital requirements banks holding certain reserves appropriate to the risks they face, (2) the supervision of these risks and (3) the disclosure of the risks to the market (www.bis.org).

governmental parties often in the form of large hospital chains. Asklepios, Paracelsus and Sana Klinikum are examples of private hospitals privatising many public hospitals. These three hospitals can distribute their earnings to shareholders but currently they do not make use of outside investors and shares are mostly in hands of the management or small stakes for insurance companies. Other hospitals turn to private investors for equity financing such as through a stock listing. Table 4.4 shows an overview of the listed German hospitals and their size and other listed hospitals for comparison. Fresenius is a very large company comparing it to two of the largest US hospital chains however the Fresenius holding has other divisions besides hospital services. Rhön Klinikum can better be compared in size to the US hospitals and shows also to be larger.

Table 4.4

Hospital	**IPO date**	**Size (Market cap) (€ mln)**	**Other hospitals for comparison**	**Comparison size (€ mln)**
Fresenius	07-08-1992	8572	Tenet (USA hospital chain)	1881
Mediclin	05-12-2000	71,19	HealthSouth (USA hospital chain)	1003
Rhön Klinikum	27-11-1989	2021	Générale de Santé (French hospital)	79,5

Efficiency (Financial performance)

Table 4.5 shows a selection of financial results of the selected hospitals. All hospitals are acquiring more sales from its hospital division over the years. Yet medical care is not always the primary activity which is especially the case for Fresenius where the hospital division only makes up about 15% of the total sales. Other income mainly comes from dialysis clinics. Both Fresenius and Rhön Klinikum have significantly expanded their presence in the hospital market through acquisition and have indicated that expanding market share in the German hospital market is also a strategic goal for the upcoming years. Mediclin on the other hand has experienced some difficulty in maintaining profitability with a negative ROA[31] in 2003 and 2004.

[31] Return on assets in an indicator for a firm's profitability, most useful for comparison within industries (Sutton, 2000).

Sales were mostly decreasing in its rehabilitation clinics and it needed to enhance its profile to the public and reduce costs. A considerable change in ROA can be observed over the next years. Although this would suggest Mediclin has divested (several) business units, the company reports that overall revenues were mainly increased by restructuring and streamlining businesses, strengthening the failing rehabilitation unit but also the increasing demand for rehabilitative care by Mediclin. Furthermore restructuring has reduced any excess costs and renewed contracts have led to reduce the cost of materials (www.mediclin.de). The sudden drop in length of stay has not been addressed by Mediclin explicitly and could be due to several reasons such as overall restructuring but also different units of measurement used.

The current ratio[32] is a measure to estimate a firm's ability to meet its short term obligations. The threshold is industry dependent but in general a current ratio of 1,5 is preferred. Solvency is also dependent on the industry the organisation operates in and which safety nets are available for preventing bankruptcy such as in The Netherlands for hospitals. Lending institutions prefer a solvency of at least 30% but tend to be less strict when governmental support is available. Individual hospitals in hospital chains have the opportunity to benefit from the holding company's financial position. It is easier for these chains to take-over and restructure underperforming public hospitals, as they can benefit from cash flows and creditworthiness of other segments or hospitals of the holding next to the accumulated private capital. However on average these hospitals do not show stable performance on liquidity and solvency, except for Rhön's solvency position.

[32] Current assets/ current liabilities (Sutton, 2000).

Table 4.5

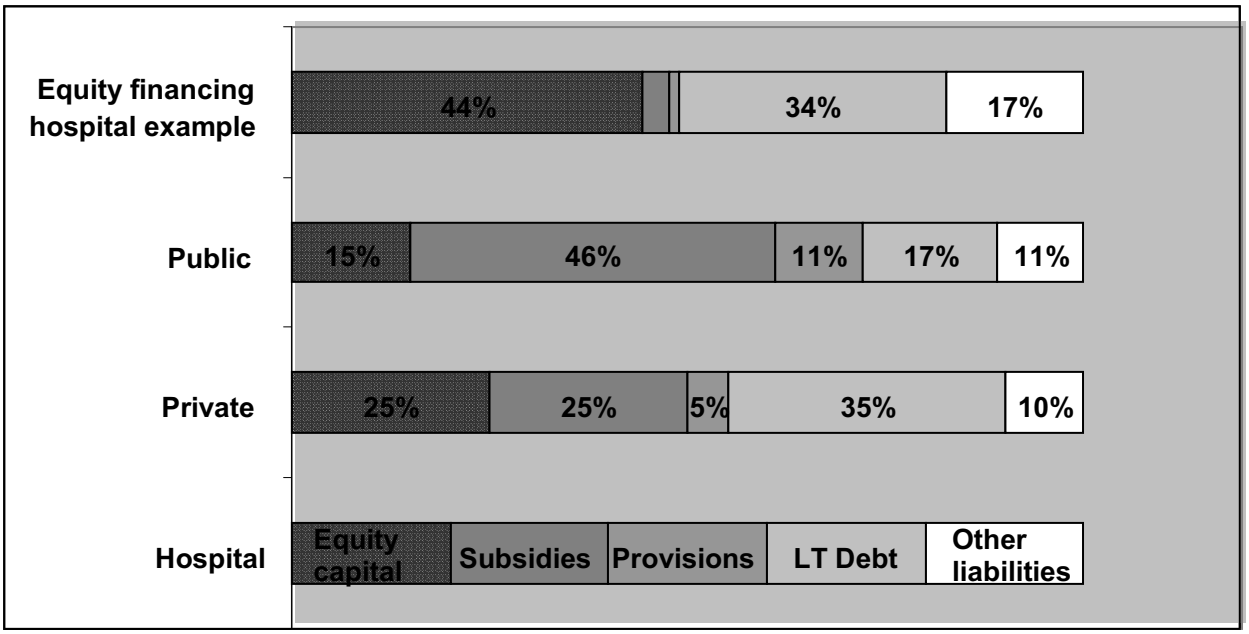
Selected data on the performance of the German public equity hospitals Year 2003-2007

	2003	2004	2005	2006	2007	
Fresenius						
Sales 000 000	7064	7271	7889	10776	11358	*a Sales ProServe*
Sales hospital/medical division	742[a]	813	809	1673[b]	1841	*b Sales Helios Kliniken*
Hospital beds	6300[c]	6100[c]	9300[c]	15685	17192	*c approximation*
Return on assets (ROA)	3,2	3,71	3,67	4,35	4,44	
Current ratio	1,29	1,34	1,14	1,34	1,22	
Solvency	21,74	22,05	36,01	29,4	30,06	
Average length of stay	nav	nav	nav	7,3	7,1	
Occupancy rates	nav	nav	nav	78,00%	82,00%	
Mediclin						
Sales 000 000	357,99	358,91	370,43	377,81	391,97	
Sales hospital/medical division	135,1	150,1	150,8	154,5	156,1	
EBIT hospital	4,4	6,2	18,9	18,6	16,1	
Hospital beds	nav	1481	1368	1341	1302	
Return on assets (ROA)	-2,33	-1,86	5,31	5,13	3,13	
Current ratio	1,26	3,38	1,42	1,61	0,8	
Solvency	27,07	22,36	22,8	26,01	26,57	
Average length of stay	10	10,6	10,4	8,2	8,2	
Occupancy rates	75,10%	75,20%	75,90%	77,60%	80,00%	
Rhön Klinikum						
Sales 000 000	956,27	1044,75	1415,79	1933,04	2024,75	
Sales hospital/medical division	918,8	1011,5	1378,6	1894,7	1984,7	
EBIT hospital	125,619	123,78	140,071	146,143	157,49	
Hospital beds	8365	9211	12217	13305	13404	
Return on assets (ROA)	8,13	7,64	7,01	7,17	6,47	
Current ratio	0,76	0,99	0,98	1,02	1,14	
Solvency	50,96	52,25	43,03	35,75	40,04	
Average length of stay	8,7	7,9	7,4	7,2	7,1	
Occupancy rates	86,10%	80,40%	79,20%	79,10%	82,30%	

(Source: Annual reports, Thompson ONE, own calculations)

Augurzky et al. (2004) shows hospital liabilities in terms of its assets in Figure 4.3. As no distinction is made between for-profit and not-for-profit private hospitals, Rhön Klinikum is included for the same year an example to show how different ownership types have different structures. Private hospitals (for-profit and not-for-profit) hold a larger percentage of equity than public hospitals which is even larger for the equity financed hospital. Yet these hospitals also make more use of debt. This can be due to the higher federal support (KHG Provision) public hospitals receive or that the better financial position of private hospitals enables them to access debt more easily than public hospitals.

Figure 4.3



(Source: Augurzky et al. (2004), annual report Rhön Klinikum & own calculations)

Unfortunately, comprehensive data on not-for-profit (public/private) hospitals could not be retrieved in order to compare the financial performance of the different types. However estimations can be given. In the upcoming section exit rates and bankruptcy of German hospitals are analysed and not-for-profit hospitals tend to perform worse than for-profits. Furthermore, equity positions of not-for-profit are lower which affects solvency as well. Bankruptcy can also give an indication for the (long-term) profitability of organisations. Therefore it could be assumed that on average solvency and profitability ratios are lower for not-for profits. Although it should be noted evidence shows more support for this claim for not-for-profit public hospitals than not-for-profit private hospitals as exits and default ratios are higher and public hospitals are often take-over targets for private hospitals (for exit rates see section continuity).

Quality

Transparency on hospital quality needs improvement in Germany. Since 2005, German hospitals are required to publish a so-called quality report in order to let physicians and patients make more informed decisions. Yet outcome indicators such as treatments success or rehospitalisation data are not obliged. The federal office for quality (BSQ) accumulates hospital data on more different quality indicators, however

individual results are not published. Nevertheless, there are hospitals which publish outcome quality indicators on a regularly basis (Tuffs, 2007). In Table 4.6 a selection of similar indicators of an equity financed hospital (Rhön Klinikum) and a not-for-profit hospital chain (Clinotel) are outlined. Values can be compared to the national average and the reference value set by BQS. Both hospital types stay within the target values. Deviations (positive and negative) can be observed from the national average as well. Overall it can be concluded that in both hospital types for these indicators quality levels are at acceptable levels and any deviations needs further analysis on the specific topic which is outside the scope of this thesis. The only remarkable outlier is the lower than average ability to walk after a knee endoprosthesis in the not-for-profit hospital. In comparison to the equity financed hospital Rhön Klinikum, Rhön's high value could be due to the proportion of clinics specialised in rehabilitation contracted by Rhön which lead to a higher than average quality standard. This does not account for the lower value of the not-for-profit Clinotel hospital compared to the national average.

Table 4.6

Selected quality indicators 2005

	Equity financed hospital	Not-for-profit hospital	BQS	BQS Target
Gynaecological operations				
Organ preservation on ovary intervention	85,8%	87,9%	62,3%	>60%*
Organ injury on hysterectomy	1,1%	1,7%	1,4%	<3,9%
Organ injury on laparoscopic operation	1,2%	0,4%	0,4%	<2,1%
Breast preserving therapy on invasive carcinoma stage pT 1/2	79,4%	80,0%	71,2%	>60%*
Total hip endoprosthesis first implantation on coxarthosis				
Ability to walk independently on first discharge	99,0%	79,0%	93,8%	>0,0%
Post-operative infections	1,0%	1,2%	1,0%	<3,5%
Hip endoprosthesis luxation	0,5%	1,1%	0,8%	<4,2%
Total knee endoprosthesis first implantation				
Ability to walk independently on first discharge	99,5%	59,5%	73,8%	>3,5%
Post-operative infections	0,4%	0,9%	0,7%	<2,0%
Nerve damage or vessel lesion	0,2%	0,1%	0,2%	<1,0%
Carotid recognstruction				
Severe complications	1,0%	2,0%	3,6%	<5,0%

(Source: Hospital quality reports, BQS database. * Start of a range)

Accessibility

The German hospital institute (DKG) surveys hospitals on a yearly basis on their current market position and corporate goals. Public hospitals try to achieve high quality of care, high patient satisfaction and comprehensive care for the populations. Private not-for-profits and for-profits follow almost similar goals but in third place is a good hospital image sought. Achieving the highest return on investment ends on the 8th place (out of 13) for for-profits and the last place for not-for-profits. It could be assumed that especially for-profits use quality and image as means to attract patients and generate revenues. However if hospitals have to justify their operations to their investors, additional revenue could be generated from other areas such as high prices, patient selection or upcoding.

Currently, Germany is in the transformation process of a budget system for hospitals to DRG prices. DRGs are used for hospitals registered in the regional hospital plans which provide hospitals with a building license and eligibility for subsidies for investments. Those hospitals treat statutory-insured patients and most for-profit hospitals are included in such plans. Hospital prices are calculated on a regional level by multiplying the DRG price by the federal base rate. For-profit hospitals would have difficulty to charge higher prices than not-for-profits due to the pricing system, especially as the base rate is expected to converge to an uniform level in 2009. Hospitals could charge additional payments for tailored requires such as individual rooms or special meals.

Upcoding has been a much debated but less researched subject in Germany. As most other hospitals the selected hospitals indicate in their quality reports that accurate DRG coding is a large part of their quality management system. This does not guarantee (the prevention of) possible upcoding activities.

During the 1990's the first caps on hospital budgets were implemented and Simon (1996) analysed a large set of hospital data to find differences among ownership. He found that privately-owned hospitals had increased the volume of their activities while reducing the cost of medical supplies such as donor blood and medication and the number of intensive care patients admitted. Such outcomes could indicate to risk selecting activities in reaction to tighten budgets. Two opposing remarks are made to this outcome by Ernst & Szczesny analysing Germany's hospital budget caps. The outcomes need to be valued first as being beneficial or harmful as a change in a

hospital's risk portfolio could also indicate to a better match between hospital capacity and the patients it accepts. In that case more severe cases would be better of at specialised or high care facilities. Secondly, the research commission of the German Ministry of Health was not able to draw the same conclusions based on its data and could only refer to anecdotal evidence (Ernst & Szczesny, 2006).

Continuity

Continuity refers to the long-term accessibility of hospital care. The Krankenhaus Rating report (2008) on bankruptcy has categorised a sample of hospitals in green[33], yellow and red zones based on low solvency, profitability and investment ratios. They indicate that in 2005/2006 18% of the analysed hospitals were in the red zone and could be facing bankruptcy, especially small hospitals. The authors forecast this amount to be more than 30% in 2008, expecting almost half of the German hospitals to end the year with a budget deficit. This is due to several reasons but mainly the German hospital market deals with continuity problems as years of underinvestment in hospital resources has led to a deficit of about 50 bln euro. Also several small public hospitals are faced with financial problems due to a changing reimbursement system where all hospitals receive a fixed payment for a certain type of treatment. This can be problematic for hospitals with less than 150 beds which were not able to deal with overhead costs (Tuffs, 2006).

Private hospitals (chains) often take over these distressed public hospitals. Yet in the foregoing chapter empirical literature shows that for-profit hospitals can be more sensitive to changes in the market and their finances. They would therefore also be more likely to go bankrupt or be taken over by other parties. Table 4.7 shows different results for the German hospital market. The probability to default (PD) is an indicator for long-term sustainability and measures the firm's ability to invest in its organisation and technology to ensure its existence. Using this variable they found that public hospitals have a higher PD than for-profits. Also a large part of the hospitals which exited were public, indicating that private ownership is less likely to default or taken over.

[33] Green zone indicates that acquiring loans (credit) is not difficult based on current performance, yellow indicates that taken on credit is becoming more expensive and red means that it is impossible to acquire new credit.

Table 4.7

	Public	Private NFP	For-profit
Probability of default[34]	2,03	1,5	0,83
Ownership of exit[35]	59,0%	24,4%	16,7%

(Source: Adapted from Augurzky et al. (2006) and Augurzky (2008))

Overall, it is observed private ownership is used to take over public hospitals in financial difficulty due to the loosening of the public safety net in order to prevent bankruptcy. It has been reported that these for-profit and other private hospitals are less sensitive to bankruptcy than public hospitals.

4.3.2 UK hospitals

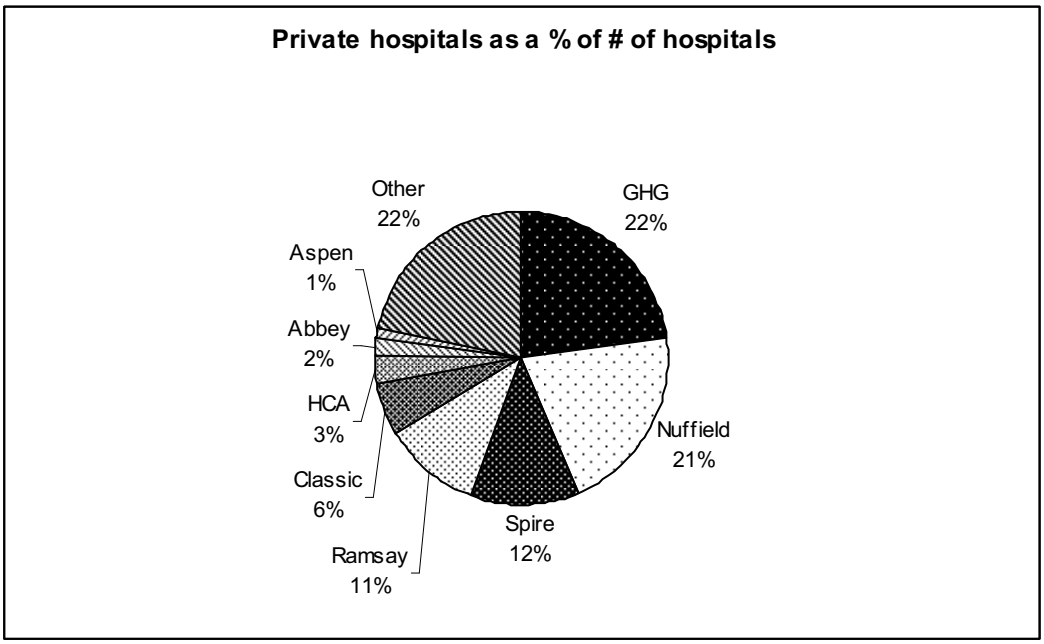
The private for-profit sector is relatively small compared to the NHS hospitals. Also a small group of players dominate a large part of the market. As opposed to Germany in the private hospital sector, the for-profit ownership form dominates (See Figure 4.4 GHG, Spire, HCA, Ramsay and part of other category). Actually the hospital market can be divided into three main categories: NHS (public) provision, private provision with NHS contracts and private provision without NHS contracts. The first two categories provide care which is financed through the NHS and patients seeking care in the last category previously could only find reimbursement if an additional private medical insurance was taken out. The Choice programme has however allowed patients to go to all hospital types as long as NHS prices are used. The NHS is slowly encouraging public-private collaboration, especially in its attempts to reduce waiting lists but also to broaden the range of services it offers, increase choice, promote new provider-models and establish a long-term relationship with the independent sector (Healthcare Commission, 2007b). The UK government monitors and reports on NHS hospitals and its contracted private hospitals on a regular basis which allows to accumulate a sufficient amount of information on the performance of these types of hospitals for this thesis. Even though most contracted private hospitals would fall in the sample selection for this thesis, in order to focus specifically on investor-owned hospitals, additional information on investor-owned hospitals only is also necessary.

[34] The probability to default is measured by the Moody's KMV RiskCalc, a tool used to calculate a firm's credit risk using several variables such as profitability, leverage, liquidity, size and growth. Often used by lending institutions (Augurzky et al., 2006).

[35] Results from 2006

Therefore a selection of hospitals dealing with equity investors is made shown in Table 4.8.

Figure 4.4[36]



(Source: www.ramsayhealth.com, market briefing)

Capio UK was part of Capio AB, a Swedish based healthcare company owning hospitals over Europe. In 2006 a group of investors joined to take-over Capio and delisted it from the stock market. Shortly after the take-over, Capio UK was sold to an Australian private hospital group. The sale was a part of the deal to overcome any antitrust regulations as Apax already owns a stake in UK's largest healthcare provider General Healthcare Group (www.capio.com, www.apax.com, UNISON company update 2007). General Healthcare Group (GHG) started its exchange listing in 1988 and was taken over by several investors over the years with growing deal values. Next, Spire healthcare is an interesting case as it was taken over from private insurer BUPA ending a conflict of interest of BUPA both selling and offering health care. The public auction organised to sell off Spire attracted many investors and was ultimately won by Cinven which renamed the hospital group to Spire Healthcare.

[36] Note that due to rounding percentages do not add up to 100%.

Table 4.8

Hospital	Investor	Year	Deal value €
Capio (Capio UK)	Apax Partners Worldwide Nordic capital fund VI Apax France	2006 - present	1,83 bln
	Ramsay Health care	2007	285 mln
General Healthcare Group	Cinven	1997-2000	998 mln
	BC Partners	2000-2006	2,06 bln
	Netcare Apax Partners Worldwide London and Regional Properties Brock and Capital	2006	3,5 bln
Spire Healthcare (BUPA hospitals)	Cinven	2007	213 mln

Efficiency (Financial performance)

Financial information for private equity hospitals is very limitedly available, as regulation does not oblige hospitals to publish information. Table 4.9 shows that Capio's performance was reasonable with increasing sales and solvency ratios but with rather weak liquidity ratios. Increasing sales remained as Ramsay reported sales of Capio UK in 2007 of €408 mln. GHG's business is rather variable. During 2003 and 2004 GHG operated at a loss which largely turned around in 2005. Yet the extreme profitability number is largely due to large scale reorganisation and the sale of a subsidiary, it could thus be questioned if profits will remain. As Netcare took over GHG during 2006 only half-year results are published but over the period of 2006/2007 a profit could be recorded again of €29 232 100. Even though solvency ratios remain fluctuating most likely due to its debt position (see remained of this chapter), liquidity has shown more positive results reaching the 1.5 threshold in 2005. Finally, dividend payment is common in private equity transactions. Unfortunately, public disclosure is not required. GHG report however that in 2005 after a loss in 2004, it recommends no dividends should be paid (Annual reports GHG).

Table 4.9

Available data on the performance of the UK private equity hospitals Year 2003-2005

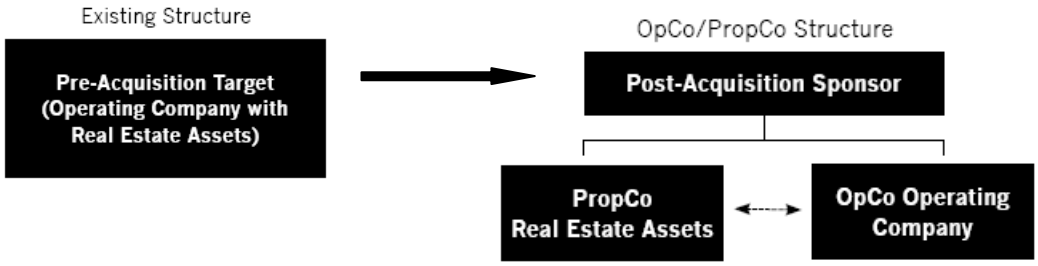
	2003	2004	2005
Capio UK			
Sales (000 000)	982	976	1209
Sales UK (000 000)		334	364
Current ratio	0,87	1,19	0,82
Solvency	28,87%	38,60%	40,74%
General Healthcare Group			
Sales (000 000)	943,966	987,6	950,394
Profit/Loss (000 000)	-35,33	-41,3	437,15
Return on assets (ROA)	-1,96	-2,37	28,27
Current ratio	1,37	1,28	1,65
Solvency	21,46%	24,52%	17,62%

(Source: Annual reports Capio, GHG, Database Thompson, own calculations)

Just as for German public hospitals difficulties arise comparing financial performance of public hospitals to private hospitals due to data availability. Yet of additional importance in the UK is the obligation of the hospital Trusts which manage the public hospitals locally to financially break-even. Only small deviations are allowed to be reported in the annual reports however in case of significant deficits, the requirement is assumed to be met when in the subsequent years surpluses are made leading to a cumulative break-even position (Ballantine et al., 2007).

Although public equity companies often use loans to finance investments next to share capital, private equity investors tend to use an extremely large percentage of debt, especially in comparison to the equity input. A reason why hospitals can be so attractive for investors are the often large property portfolios which allow among others enhanced credit. A common structure, also applied by the consortium that took over GHG in 2006 is the OpCo/PropCo structure. Short term bridge facilities are often reorganised when a company has a large property portfolio. In GHG's case, real estate was transferred to the PropCo group which leased it back to the OpCo group (See Figure 4.5). This allows the different groups to focus on their own operations and raise financing independently. The PropCo group can access the real estate capital market which often provides higher leverage for lower rates. Its OpCo-EBITA leverage was reported to be 2.7 but mounted up to almost seven when combined with the PropCo debt acquired (Netcare, 2006).

Figure 4.5



The acquisition of Capio UK is also financed through debt (€1,4 bln) which according to Ramsay provides sufficient funds for the acquisition, required maintenance and investment and new expansion programmes. Yet Ramsay's debt risks are spread company wide and not just for Capio UK. Intensive use of debt can be reflected in the debt-to-equity (D/E) ratio using total liabilities. Although capital information on private equity hospitals is limited available, estimation on debt and equity can be given. GHG's D/E ratio fluctuates from almost eight times as much debt as equity in the initial phase of the acquisition in 2006 but Netcare has managed to a reduce it to around five in 2006. In comparison, the public equity hospitals in the sample report much lower ratios (Rhön Klinikum; 1,86 Mediclin; 1,68 Fresenius; 2,92). High D/E ratios can be common in capital-intensive industries, yet a large share of long-term loans makes interest expenses a continuous burden and can pose continuity problems on the long-term.

An important advantage of private equity investors is argued to be its ability to directly invest large funds into the organisation, directed at reorganisation. By looking at the so-called capital expenditures (capex) funds devoted by its private equity investors this can be analysed. Capio UK's maintenance capex is estimated at around €17 mln and additional capex in 2008 and 2009 for site development, projects and compulsory improvements. GHG report a capex of around €55 mln for the first half year in 2007 and over €22 mln in 2006 for the whole year. This could point towards a strategy focussed on restructuring, renovation or acquisition. Again creating an overview of changes in capital expenditures is problematic and no decisive conclusions can be drawn. Overall, in all cases hospital acquisitions have been made by the private equity investors to expand business nationally and oversee. Only Cinven in case of GHG and Ramsay for Capio UK specifically report on investments made in renovations and expansion on existing location, however this does not exclude that other parties have not (Annual reports GHG, www.apax.com, www.cinven.com, www.bcpartners.com).

A final frequently debated feature of private equity is its short perspective. Hedge funds often pursue a strategy of acquiring a company and selling it of in parts to make quick short term profits. Even though the investors in this case have a longer perspective, the required returns on exit could drive private equity investors to follow the same techniques. However in this sample no evidence is found to support this claim. The divesture of Capio UK by the holding was necessary due to UK antitrust law. Furthermore, GHG and its investors has made a few divestures mainly separating non-core activities while acquiring several other hospital units in the UK and merging with hospitals already in ownership of the investor. Also Spire has already made an acquisition in the UK hospital market since its take-over. Therefore it is rather assumed that private equity investors in the hospital market pursue expansion strategies to gain value than divesture tactics.

Quality

The Healthcare Commission regularly reviews the performance of its health care system. Unfortunately, quality assessment of the hospital sector is limited to NHS hospitals and the independent sector (e.g. private hospitals delivering contracted care for the NHS). Even though for-profit private providers including those in this thesis's sample dominate in the independent sector, the results provided by the Healthcare Commission also include some not-for-profit private providers. Another major problem and point of critique is the lack of (comparable) information and often of inferior quality which makes it often impossible to accurately compare results between the independent sector and the NHS. Yet the yearly 'State of Healthcare report of the independent sector treatment centres (ISTCs) does indicate that independent hospitals seem to have lower lengths of stay and fewer emergency readmissions. Yet it should be considered that most independent hospitals do not serve the most complex patients (Healthcare Commission, 2007a&b).

The Healthcare Commission also evaluates the independent sector separately. Table 4.10 displays available quality indicators for NHS treatment centres[37] (NHS TC), NHS acute centres and ISTCs. The first ratio is the percentage of readmission within 30

[37] NHS TCs are facilities which are set up to increase NHS capacity at certain location and to widen choice and owned by the NHS. TCs usually focus on elective care but some units are also designed for emergency care as well. ISTCs are a form of TCs in private ownership (www.nhs.uk).

days of discharge of total discharges for that procedure. Mortality was measured with UK's ratio set as a base at 100. On average readmission seem to be lower in ISTCs than in the NHS. In general, mortality ratios are difficult to interpret as treatment centres (NHS and private) often do not have emergency facilities and are less likely to attract high risk cases. Even in the NHS TCs no deaths were recorded for the procedures. An extreme outlier is reported for arthroscopy which is a surgical examination of the joint cavity. The outcome is most likely to be biased as it is based on only three casualties and low volumes of admission. As indicated an important issue in analysing these outcomes is case-mix. All outcomes in the previous report are adjusted for age and gender but severity was neglected mostly due to insufficient data. Yet NHS contracts are designed to send only elective cases to ISTCs so case-mix is in essence different. The report therefore analysed the characteristics of patients treated in NHS acute centres, NHS TCs and ISTCs on deprivation and age. The index of deprivation is a measurement of socio-economic status affecting health status and outcomes of care. The index can be ranked according to postal codes creating areas from the lowest to highest deprivation. Next the hospitals located in the highest deprivation areas were counted and NHS acute hospitals tend to serve the most patients in the highest deprivation areas. Additionally, patients in acute NHS hospitals are on average older than in TCs (Healthcare Commission, 2007a). This is also supported in a recent study by Browne et al. (2008). The study analysed patients undergoing a three day surgery procedure and hip or knee replacement either in ISTCs or NHS facilities. Results show that patients treated in ISTCs were healthier, had less severe primary conditions and were less likely to show any comorbidity. Overall, case-mix differences are present between NHS providers and ISTCs and should be taken into account when analysing the results on quality (Browne et al., 2008).

Table 4.10

Selected quality indicators

	NHS acute		NHS TC		ISTC	
Readmission / Mortality ratio						
Cataract	2,0	101	1,3	0	0,9	79
Hernia	3,8	102	2,8	0	1,0	0
Primary hip replacement cemented	7,7	103	2,6	0	6,7	42
Primary hip replacement uncemented	7,3	101	nav	0	5,3	0
Primary knee replacement	6,6	102	6,4	0	4,0	53
Arthroscopy	1,4	67	0,6	0	0,8	848

Patient satisfaction was measured in 2007 over a group of 2000 patients undergoing elective orthopaedic procedures using the same methods and analysis as in NHS reviews, therefore enabling direct comparison. Table 4.11 shows the reported outcomes which showed significant differences. Although the independent sector performs slightly better on the six measurements, most notably is that the differences between the two groups is not very large and patient satisfaction in general is quite satisfactory. Except for the (perceived) waiting times in the NHS which is a common problem (Healthcare Commission, 2007a)

Table 4.11

	NHS	**Independent sector**
Arrangement for admission/waiting time	63%	85%
No unplanned changes made in admission	74%	84%
Patient involvement in decision	93%	97%
Sufficient explanation given by staff	91%	91%
Sufficient explanation given on risks and benefits of procedure	96%	97%
Satisfied with the amount of information given	85%	92%

Accessibility

Access to investor-owned (private) hospitals in the UK is possible through out-of-the-pocket payments, private medical insurance (PMI) or coverage by the NHS through contracted private care. In the extended Choice programme patient can also receive reimbursed care from all hospitals in the UK offering procedures at NHS prices. One of the main motives for private sector involvement is the problems in accessibility of several NHS hospitals due to waiting lists. Private hospitals contracted by the NHS fall under the NHS coverage and would therefore increase accessibility through affordability for patients. This is different from German (for-profit) private hospitals where most hospitals are covered in the regional building plans which automatically allow for reimbursement of costs for insured patients. During the initial phase of NHS outsourcing, margins on the contracts were considered to be extremely high, over 50-90% premium on the NHS price (Timmins, 2004). In order to establish more competitive contracts NHS started to write tender offers. In 2003 a group of local but mostly international companies was selected to set up new or refurbish old centres specialising in non-urgent operations to Independent Sector Treatment Centres (ISTC). In 2005 new contracts were issued in which Capio, Netcare and former Spire

healthcare BUPA were also included. Foreign involvement and the popularity of NHS contracts have stimulated many private hospitals to decrease costs to offer more favourable bids. Currently all hospitals in the sample have contracts with the NHS through contracted care at existing private hospitals and in ISTCs. Capio UK already derives almost 20% of its revenue from NHS contracts. In 2005 the pace of outsourcing was reduced as in the second wave the amount of contracts was reduced. Still, 15 contracts were established for elective procedures and diagnostic services. Also NHS outsourcing was not without critique. ISTCs perform mostly elective procedures, leaving more complex, high risk and high cost cases for NHS hospitals. Also, to compensate for initial investment costs, private hospitals are still paid a 11% premium. As waiting lists are reduced and costs for patients are recovered, patients are not directly confronted and accessibility is even improved. However the NHS budget is hurt and the question remains to what extend the NHS can maintain paying premiums, even on long-term contracts (www.nhs.uk & Timmins, 2004).

Access through PMI is growing but still used on a small scale by around 11% of the population and most predominant in the age category 35-54 and high income groups. Applicants may be subject to selection and pricing based on risk categories such as age, gender, occupation, smoking status and place of residence. Often restrictions in NHS hospital access (i.e. waiting lists) is referred to as a reason for patients to seek PMI for accessing private hospitals, yet studies have not been able to provide any direct links between either local waiting lists or waiting times on specific procedures and private treatments reimbursed by PMI. This would indicate that it is rather waiting lists in general are sufficient for citizens to seek PMI. (Foubister et al., 2006 & OECD Healthdata).

One of the main elements of the Payment by Results (PbR) programme in 2004 was the introduction of HRGs (UK equivalents of DRGs). Such payment systems have been shown in other countries to provide incentives for hospitals to code patients in more complex groups than needed for higher reimbursement. No studies could be retrieved for upcoding in private UK hospitals, but upcoding fro public hospitals has been limitedly evaluated. Rogers et al.'s (2005) initial findings show that NHS hospitals have not significantly changed their coding behaviour since 2004 and following studies by Miraldo et al. (2006) had also difficulty finding significant support for upcoding by evaluating HRGs by volume. Yet the authors still suggest that upcoding is a reasonable threat to remain investigating. One hospital in the sample increased its

amount of activities where "complications" were included with almost 300% over five years.

Another form of negative behaviour affecting accessibility is selection of patients. For most NHS hospitals patient selection is difficult to realise and although there are possibilities to select, the limited opportunities to do so will decrease the amount of cases (Miraldo et al., 2006). Private hospitals face fewer restrictions on patient selection. ISTCs are for example not designed to accommodate high risk patient and can easily refer the more complex cases to NHS facilities. In other cases hospitals can organise their facilities in such a way that the most complex cases cannot be treated and will be automatically referred to NHS facilities. The hospitals in the sample in most case have no or only limited resources to treat emergency cases, the main focus is on elective procedures (www.spirehealthcare.com, www.generalhealthcare.co.uk/ www.bmihealthcare.co.uk, www.ramsayhealth.co.uk).

Continuity

An important issue when discussing continuity in investor-owned hospitals is the heavy use of debt by private equity investors discussed earlier. Although there is no direct data on the amount of debt used, all private equity hospitals were financed with a considerable amount of loans. The pressure of interest payments could make these hospitals an easy take-over partner or even lead to bankruptcy. Also NHS hospitals can be faced with long-term accessibility problems, although the support network is much larger. The NHS has faced considerable amounts of deficits over the years. In 2006/2007 a continuing shortage was turned into a surplus but the NHS still reports that there is a significant amount of hospitals in financial difficulty which cannot be easily settled (Ham, 2007). As the NHS will remain to support most hospitals, continuity is most likely not to be threatened on a large scale however if recent surpluses cannot be maintained long-term stability is threatened and unconditional financial support may not persist endlessly.

4.4 Equity Investors

The interest of investors in hospitals is growing. Apax has already participated in two UK take-overs and also Cinven is an active party in the health care market. It acquired General Healthcare, Spire Healthcare but also other hospitals such as the French hospital Générale de Santé which was liquidised in 2001 through an IPO. Hospitals can be an interesting investment as demand for care is mostly continuous and nearly

all hospitals hold a large property portfolio. Property can be placed in an investment trust[38] to create value or to enhance leverage for example through the OpCo/PropCo structure. Furthermore the environment is more favourable as changing demographics such as an ageing population which would ultimately lead to higher demand for care but also the decreasing government involvement or government outsourcing makes participation more attractive.

Private equity hospitals tend to have a preference for contracts with the government for the supply of care. Yet sole reliance on these contracts will leave these hospitals also dependent on changes in the political environment. Public-private collaboration has proven to provide its difficulties and most for-profit hospitals tend to balance its sources of revenues for example through private insurance contracts or nursing homes. Certain behaviour is also visible in Germany where most for-profit operators rely next to hospital care on its rehabilitation clinics or medical supply services.

4.4.1 Public or private equity discussion revised

In chapter three, the theoretical analysis has slightly favoured private equity over public equity for hospitals. Unfortunately very little research specifically deals with equity financing decisions for hospitals. Therefore by combining the examined characteristics of the two forms for equity financing with the results from the case study, this thesis can contribute to the existing literature. Considering these outcomes, the preference for private equity needs to be revised. The case studies show that even though public equity cases are limited to the German market, public equity hospitals do have a more stable performance than private equity. This is in line with what is expected from the capital market and private equity investors do not seem to be able to drastically improve the financial performance after involvement. In comparison to private equity, public equity hospitals publish more information on performance, quality indicators and strategy. Although largely this is due to capital market requirements, it does create an environment where information is more easily accessible and available to the public and thus improves the transparency of the market. A major issue in private equity is the heavy use of debt, displaying less commitment of the investor's own funds. High D/E ratios after the exit of the investors can affect the long-term sustainability, making the hospital even more vulnerable for

[38] Real estate can be owned and/or managed by investment trusts in which different properties are placed in a fund where investors can collectively invest in (www.investopedia.com).

new take-overs or even bankruptcies. Hospitals can seek out investors which are more concerned with the performance of hospitals on all public goals however the case studies show no evidence of private equity investors committing to that. Still, not all hospitals are willing to comply with capital market requirements or are simply not suitable for a listing. Further, in Germany and the UK both forms of equity financing are available. Therefore, in order to allow other hospitals to attract private funds and diminish the risks of private equity, restrictive legislation for (private) equity investors in the hospital market could be used. Legislation could then specifically deal with the negative features observed in private equity and could direct at caps on dividends or other forms of profit distribution. Also the debt burden could be restricted and authorities could put effort into monitoring whether hospitals are balancing their funds in such a way that investors earn a return at the cost of liquidity and solvability.

4.5 Conclusion

In this chapter the performance of equity financed hospitals in Germany and the UK is analysed. The focus is on equity financed hospitals as investors can provide hospitals with additional capital especially needed now policies are directed at giving hospitals more financial responsibilities. Just as in The Netherlands information asymmetry is most problematic for Germany and the UK. It has been assumed that there has not been taken sufficient action to address this issue and mostly due to this, contract failure is present. In case of contract failure, for-profit hospitals can harm the public goals in health care. The performance of investor-owned hospitals is therefore analysed based on how they affect the public goals. A selection of hospitals is used to serve as a sample for hospitals with equity financing in these countries. Additionally accumulated data on equity financed hospitals is gathered. A major limitation in the analysis is the availability of data on hospital equity financing and sources can refer to broad categories such as for-profit hospitals or private hospitals. Although taken with caution some conclusions can be drawn.

The highlights of the analysis are shown in Table 4.12. Given the limited data availability, the evidence does not support any assumptions on investor-owned hospitals harming quality or continuity. There are some trends showing selection and upcoding behaviour but this is also recorded for public hospitals. This could either indicate to spill-over effects by for-profits or that despite their not-for-profit status public hospitals are also stimulated to upcode. Hospitals with public equity investors seem to have a relatively good performance in Germany, although credit positions

could be improved in order for hospitals to pass critical evaluations by lending institutions. Except for evidence for upcoding there is no outspoken indication that they negatively affect other goals. The financial performance of private equity hospitals on the other hand is highly volatile which can be due to risky debt management and frequent change of ownership. Finally, it could be expected that German for-profits (but also private) hospitals are on average more efficient than their public counterparts, yet the lack of comparable data for the UK prevents any conclusions taken on this part.

Table 4.12

	Germany	UK
Environment	• Solidarity, subsidiarity • FP hospitals often part of hospital plan	• Social protection, provision of welfare services based rights • Contracted care, outsourcing, PMI, out-of-pocket for FP hospitals
Efficiency	• Increasing sales • Diversified portfolios • Unstable liquidity/solvency • High level of public take-overs • Higher equity FP than NFP • FP most likely have a better financial position than NFP	• Growing sales • Unstable profits, losses • High D/E ratios
Quality	• Quality levels above target, very limited differences among ownership types	• Slightly better performance ISTCs (quality, satisfaction). Case-mix differences mainly ignored.
Accessibility	• Investor-owned hospitals included in hospital plan • Indication for upcoding: limited information	• Increased access: outsourcing, contracting, Choice • NHS rate paid but 11% premium reimbursed • Indication for selection: limited information
Continuity	• Financial difficulty public hospitals. More likely to default	• State deficits in the past • High debts for private equity hospitals

Finally, public and private equity investors are separately addressed. In contrast to what is assumed in chapter 3, where private equity is preferred over public equity, the latter form now has slight preference. Transparency requirements of public equity is to a larger extend seen as an advantage to consumers and the market. Also the overuse of debt in private equity and middle term view of the investor makes it a less preferable partner for most hospitals.

5 Conclusion

5.1 Findings from the Literature

In The Netherlands the issue of profit distribution by hospitals is subject of debate. Analysing the subject can be dealt with from various perspectives. This thesis deals with one of the advantages often argued by proponents: allowing profit distribution would open the market for hospitals to attract funds from private investors (public and private equity). This could improve their financial position and enhance financial responsibility. Especially in a time where markets are reformed for hospitals to face more financial risk and the role of the government is diminishing, private funds can be very attractive. Access to private capital also provides the hospital with a major (competitive) advantage with respect to their not-for-profit (and public) counterparts. Additionally, markets can benefit as new (foreign) hospitals are attracted, increase competition, capacity and choice. Yet opponents see many risks by attracting investors and creating new types of hospitals. The question remains if public and private equity investors in hospitals are beneficial or harm the hospital market. The central question in this thesis is therefore how public or private equity investors impact the performance of hospitals.

Performance is a wide concept and can be measured in different ways. At first performance is related to organisation specific outcomes but often and specifically in health/hospital care it is also of importance of how the organisation affects the society as a whole. In the hospital market it has been assumed that four public goals should be maintained: efficiency, quality, accessibility and continuity. In this thesis hospital performance is measured by to what extend hospitals contribute to or harm these goals. As equity financed hospitals are a form of for-profit organisations, the first sub-question deals with under which circumstances for-profits perform better than not-for-profits. Economic theory indicates that if a certain set of market conditions is met for-profit organisations allocate resources most efficiently. However specific features of the health care market prevent these conditions from being met and therefore it is assumed that market failure is present in health care. Government interference is necessary. In the Netherlands but also in Germany and the UK several actions have been taken to address market failure but especially information asymmetry seems to be most difficult to resolve. If government action cannot satisfactory tackle market failure, there is contract failure. The presence of for-profit organisations in a market with contract failure could lead to negative behaviour of these organisations, harming the public goals. For-profit organisations can still remain to be efficient but in

reaching that the other three goals can be harmed. In theory, the decision to allow for-profit organisations then depends on the trade-off made between the potential benefits for-profits bring to the market such as increased efficiency, competition and the ability to attract funds from private investors and the risks they impose on the other public goals.

A very limited amount of studies have focused on investor-owned hospitals, of which only a few use European hospitals in their sample. Though, several studies are set up to analyse the performance of US for-profit hospitals often including investor-owned hospitals. There is some indication that for-profits are more efficient (measured by the financial outcomes) than not-for-profits. Yet not all studies specify whether this is due to better cost management or higher prices. In the latter case it could not be accounted for as efficiency. The performance of for-profit hospitals on the other public goals is even more ambiguous. As the studies show positive as well as negative results, concerns can still be raised towards the presence of for-profit hospitals. Therefore it could be expected that for-profit hospitals will be more efficient than not-for-profits but could have a negative effect on quality, accessibility and continuity.

For-profit organisation can attract funds from different types of investors but the focus here is on the most common two: public and private equity investors. The difference between the two is that public equity organisations are listed on the stock exchange while private equity investors invest in companies which are unlisted. Both types have a specific set of advantages and disadvantages where organisations in public equity remain to have a larger amount of control but are subject to several reporting requirements and the sentiment of the market. In private equity, organisations loose control to the investors but can benefit from the investor's resources and knowledge. Yet private equity investors are often restricted by a limited outlook and look for an exit within the middle term, potentially affecting the long-term performance of the hospital. The current legislative environment in The Netherlands makes Dutch hospitals but also other health organisations less attractive for equity investors, nevertheless some players are active in the market such as private equity investor Meromi and several investors in other types of care organisations.

5.2 Findings and Discussion of the Case Studies

This thesis uses a document analysis of annual reports and other company

communications, governmental and academic studies and market data as a research method. The outcomes should be taken with caution due to several limitations. First a small sample of investor-owned hospitals has been used to represent the equity financed hospitals in the respective case countries. Data availability has been an issue throughout the study but is most specifically present for private equity hospitals and general information on public hospitals. Data is complemented with general studies on for-profit hospitals or private hospitals, including investor-owned hospitals in the sample.

Considering the limitations several conclusions on equity financing in hospitals can be drawn. First in Germany and the UK for-profit hospitals are taking an increasingly important role. (Government) deficits make public German hospitals an attractive subject for take-overs, especially because it automatically make for-profit hospitals part of the hospital plan and reimbursement. In the UK programmes addressing increased patient choice and attempting to lower waiting lists has shifted NHS attention to the private sector. At this point NHS patients cannot only access contracted for-profit hospitals but any hospital offering services at NHS prices. In regulating market failure, both countries seem to have the most difficulty just as The Netherlands in addressing information asymmetry. At the hospital level, the financial performance of most hospitals seems to be highly volatile and only for the German investor-owned hospitals a careful statement could be made that they have a better financial performance than public hospitals, although it is most likely this is the case for all private German hospitals. Private equity financial performance is highly volatile and uses risky debt management. The assumptions made on equity financed hospitals negatively affecting quality and continuity could not be confirmed. Rather differences in comparison with other ownership types are very small and in some cases even favouring the investor-owned hospitals. There is evidence found for upcoding and selection behaviour, affecting accessibility however this is also measured for not-for-profits.

Next, as very little research is devoted to hospital equity financing and its characteristics, this thesis can therefore contribute to the existing studies by evaluating which type of equity investor is preferred for hospitals. Given the positive outcomes of public equity hospitals in Germany and its specific features compared to private equity, public equity is a better choice for hospitals. First, information disclosure requirements for public equity benefits monitoring institutions and patients by increasing the transparency of the market. Also the hospital will hold a

considerable amount of control in its daily management. Yet in theory private equity seems attractive as it addresses agency problems and is less invasive as conforming to the listing requirements. However in practice a major disadvantage in private equity relates to its middle term view where frequent change of ownership and the heavy use of debt could harm hospitals in the long-run. Therefore public equity is preferred as it is expected to be less risky for hospitals and provides a major advantage in transparency. In contrast, this standpoint should be reflected against the position that public equity is not suitable for all hospitals and most beneficial for organisations with a stable (financial) performance. Also not all hospitals are willing or have the capacity to comply with the invasive requirements of the capital market. Finally, where allowed such as in Germany and the UK both types of equity financing are available to hospitals. Therefore restrictive measures could be used to protect hospitals from negative behaviour by private equity investors. In order to guarantee the long-term presence of hospitals, authorities could impose restriction on the debt burden placed on hospitals. Furthermore to reduce the adverse effects of private equity's middle term view, caps on dividend payouts can be placed and dividend can also be restricted to certain profit levels. Overall, authorities should consider that investors cannot benefit from hospitals at the cost of hospital liquidity and solvability, deteriorating its long-term position. These requirements can be made applicable for any type of for-profit hospitals and its investors.

5.3 Conclusion: Problem Statement

Data availability has been a major contributor to the limitations of this thesis. It also restricts the methodologies which can be used so it can be necessary in the future to empirically test the relationship between equity ownership and the performance based on the four public goals through statistical analysis. This thesis could then serve as a basis for the first exploration of the market and for formulating hypotheses. For now, this thesis solely describes the performance of equity financed hospitals. In conclusion the evidence so far shows that in the two studied countries investors can improve the performance of hospitals slightly on several of the tested indicators, also depending on the type of investor. However the risks of damaging the other public goals and thus deteriorating performance, especially accessibility, should not be neglected. Authorities should therefore continue to put effort in addressing market failure and the hospital market always needs regulation. Furthermore the risks specific to public and private equity could also be managed by implementing legislation specifically dealing with the negative features.

5.4 Towards Equity Investors in the Dutch Hospital Market?

The Dutch debate on allowing profit distribution in hospitals has been the starting point of this thesis and The Netherlands has served as an example throughout the thesis. In order to turn back to this, first it should be again taken into account that direct comparison between health systems is often problematic and by reviewing the outcomes the respective health systems of the countries should be considered.

Returning to the results of the analysis, this thesis cannot give a straightforward answer whether to allow profit distribution or not, it can rather contribute to a specific advantage of it: access to equity financing. In most European countries there is a tendency to reduce the role of the government in health care but paradoxically enough when allowing public or private equity investors, the role of the state becomes even more important. Authorities should lay out and monitor the ground rules in allowing investors in hospitals in such a way that the public goals are not harmed by negative behaviour. Although the literature analysis on equity financing has led to a preference for private equity in hospitals, after analysing all the results, public equity is eventually preferred over private equity. Note however that the negative results for private equity are only based on the UK market and do not provide enough information on whether private equity's unstable financial performance is exclusively due to its investors. As it is more likely that if allowed in The Netherlands, both forms of equity financing will be available, Dutch authorities could implement the mentioned legislative measures.

Information asymmetry seems to be an issue for all three countries. Transparent and consistent supply of performance information on hospitals can contribute to resolve this. In the NHS hospitals are constantly evaluated but performance data on private hospitals is more restricted. In Germany equity financed hospitals do show regular quality performance reports which are obviously a consequence of the pressure of the market to disclose as much information as possible. Yet there are also hospitals which use quality outcomes as a marketing tool to attract new patients and results are only published when favourable. In The Netherlands information asymmetry can be improved by clearly stating a set of performance indicators needed to be made public as a requirement for investor-owned hospitals. This would not only address information (in)transparency but would make data more available for research.

From this thesis accessibility issues were most prevalent. Private hospitals in the UK have an essential advantage over NHS hospitals as they do not offer or only limitedly offer emergency care. The Netherlands can avoid this situation by obliging investor-

owned hospitals to always include emergency services for general hospitals. Accessibility in terms of affordability was not directly measured in this thesis as German hospitals are subject to national DRG prices as well as to a large extend in the UK. Yet in The Netherlands prices are partly variable and affordability could be affected. However even a perfect market cannot reduce prices if it accurately reflects its costs.

Lastly, this thesis does not present enough evidence to give a straightforward answer as to whether to allow profit distribution and for-profit hospitals in general. However at first glance it seems that given that authorities are able to manage the risks satisfactory, equity financed hospitals can contribute to the hospital market. In Germany, for-profit hospitals restructure hospitals in financial difficulty and address the financing gap of the government. In the UK, mostly investor-owed hospitals have provided additional capacity to reduce waiting lists. In general it falls in line with current reforms in most Western European countries focussing on a diminishing role of the government and increased financial responsibility of hospitals. Also it is not likely that for-profits will take over the whole market as in the studied countries not-for-profit is still the dominant form but even in a country as the US for-profit hospitals have a limited market share. If the right boundaries are set, it seems that equity financing can be a complementary tool in the hospital market. Yet in order to set the correct boundaries, more in depth studies on the consequences of for-profit hospitals on the public goals are needed in order to assess which (preventive) measures should be taken. And as the experiences from other European countries show that for-profits do not pose an immediate danger to the public goals, a study in the form of a pilot case in the Dutch market could be an appropriate and a very enlightening next step.

6. References

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