UNIVERSITEIT GENT

FACULTEIT ECONOMIE

EN BEDRIJFSKUNDE

HOVENIERSBERG 24

B-9000 GENT

Tel. : 32 - (0)9 – 264.34.61
Fax. : 32 - (0)9 – 264.35.92

WORKING PAPER

The role of investor capabilities in public-to-private transactions

Han T.J. Smit[1]

Wouter De Maeseneire[2]

January 2005

2005/290

[1] Erasmus University Rotterdam

[2] Erasmus University Rotterdam and Ghent University. Wouter De Maeseneire is Aspirant of the Fund for Scientific Research-Flanders (FWO-Vlaanderen) and greatly acknowledges financial support from the Fund. Corresponding author: Wouter De Maeseneire, P.O. Box 1738, NL-3000 DR Rotterdam, The Netherlands, Tel: +31 10 408 23 68, Fax: +31 10 408 91 65, email: wouter.demaeseneire@ugent.be. We would like to thank Koen Schoors for comments on earlier drafts of this paper.

D/2005/7012/08

The Role of Investor Capabilities in Public-to-Private Transactions

Abstract

In a public-to-private (PTP) acquisition, the gained control and the capabilities of the private equity investor affect strategic management of the firm and its value. We examine the role of idiosyncratic investor capabilities in the value appropriation from PTPs and provide implications for the changing market for private equity. Next to the traditional sources of value, we incorporate and value entrepreneurial aspects, investor specialisation, path-dependency and levering the private investor's core competencies. Due to competition and replicability an increasing part of value creation in PTPs is reflected in the acquisition premium. As a result, we expect more specialization in private equity to lever idiosyncratic capabilities, as can be observed in buy-and-build strategies.

1. Introduction

Public-to-private transactions are an important means for restructuring underperforming businesses and may allow to remove a capability gap that exists within inefficient public firms. In a public-to-private transaction (PTP)[3], a private equity investor, often in cooperation with the incumbent management, buys out the shareholders of a listed company. To a large extent, going-private transactions are financed by issuing new debt. Clearly, strategic management of and creating value in private investments are quite different from that of ordinary investments in public firms. A small shareholder of a public firm is not a true owner of the company in the sense of having an impact upon the operational cash flows or on the uncertainty surrounding them. By contrast, private equity is an alternative investment: the shareholder often gains control because its investment is substantial and

[3] The terms going private, public-to-private (PTP), leveraged buyout (LBO), management buyout (MBO) and leveraged management buyout (LMBO) are often used interchangeably in the literature to indicate a public-to-private transaction, although strictly speaking these are not synonyms. Public-to-privates belong to a special category of management buyouts, and their sources of value thus include those of a management buyout, but in addition there are the advantages (and disadvantages) of a delisting.

involves a long-term commitment to the firm. This gives the private investor the opportunity to influence management decisions, introduce better incentive mechanisms, renew firm governance, and enhance information flows.

PTPs occur when they generate economic value. Kaplan (1989a) reports that cash flows rise on average by 96% from the year before the buyout to three years after the transaction, and firm value increases by 235% (96% on a market-adjusted base) from two months before the buyout offer, to the exit. However, a large part of the value creation is reflected in the takeover price due to competition and flows to the target's shareholders.[4] The competitive landscape for private equity investors has changed over the last years as they encounter heavier competition, further driving their returns downwards. In addition, a large part of their once unique resources, such as their creative financial engineering skills and their privileged access to deals, have become commodities. Over time, the traditional idiosyncratic capabilities[5] and sources of value creation have lost their uniqueness. It has become increasingly difficult to appropriate value with a traditional buyout.

Only when rival private investors are unable to duplicate the value creation that derives from non-imitable assets or skills controlled by the buyout firm, bidding away the full value creation can be avoided. Examples of such idiosyncratic assets or capabilities include the private investor's organisation, culture, image and reputation, the firm's unique history, its experience in deal making and managing portfolio companies, and its network. If any of these organisational attributes are unique and when combined with the target generate more value than rivals can obtain, the investor will be able to appropriate part of the economic value created and generate abnormal returns. As a result of heavy competition, a private investor can only capture value creation by levering its own or its portfolio companies' unique core competences onto the target firm. In this chapter, we examine the process of replication and the role of renewing idiosyncratic investor capabilities in the value appropriation from PTPs. We value isolating mechanisms such as path dependencies and develop implications for the changing market for private equity.

This study adds to both the finance and the strategic management literature. In finance literature, restructuring and increasing efficiency by resolving agency and information problems and optimizing tax shields are the common grounds for PTPs. We also pay attention to entrepreneurial aspects, investor specialisation and levering the private investor's core

[4] DeAngelo, DeAngelo, & Rice (1984a), Lowenstein (1985), Kaplan (1989a), Smith (1990) and others show that premiums paid to selling shareholders in public-to-privates in the 1970s and 1980s are 30 to 50% of the pre-buyout market value.

[5] We use the terms capabilities, (core) competencies and resources interchangeably.

competencies. To the finance literature we add the idiosyncratic and path-dependent nature of the investor's resources. We emphasize that the strategic value of levering capabilities provides path-dependent follow-up investment opportunities that can be valued using real option theory. We contribute to the strategic management theory by providing an explicit application of the resource-based view, by linking the value appropriation to idiosyncratic resources and adding uncertainty to the knowledge-based view using a real options framework. This value-based framework is able to quantify the levering of core competencies and path dependencies.

Our holistic framework relies on techniques from finance and uses an expanded adjusted present value criterion, that not only considers portfolio synergies but also intertemporal synergies of levering capabilities and creating growth opportunities (by organic growth or through acquisitions). A unique resource position can be built through the accumulation of resources by the sequential exercise of investment opportunities in a real options chain. As a result, private equity investors try to build and accumulate unique and difficult-to-replicate resource positions, and concentrate on deals in which their distinctive resources are most valuable. Building on our model, we propose the following implications for the buyout market.

In order to obtain a unique portfolio of accumulated resources, private investors will further specialize, in specific industries or technologies, and extend their networking and deal syndication. They differentiate themselves as they require unique core competencies that can be levered onto the target. The traditional sources of value like the financial and some of the operational effects have become non-idiosyncratic and are reflected in the takeover price; value appropriation stems from levering the investor's core capabilities onto the target and exploiting the follow-up investment opportunities the target provides. The private equity market will further move away from the traditional type of transactions based on financial considerations into more sector specialization, innovative approaches and hybrid deals, such as buy-and-build strategies, that really enable the private investor to take advantage of its unique competencies. To an increasing degree, a private investor's resources and previous portfolio investments determine the value of its current transactions (path dependency), resulting in specialisation. Moreover, this specialisation further reinforces the path-dependent character of its portfolio of investments. The path dependency of investments (under uncertainty) leads to unique investment opportunities that have a higher value to one specific investor than to the other, due to its idiosyncratic buyer value, its unique information and/or its idiosyncratic real option parameters.

Our framework allows to explain the dynamic evolution in the market for private equity. As the capabilities and sources of value creation in the ’80s (restructuring inefficient firms that suffered from agency problems) became commodities due to increasing levels of competition, buyout investors developed innovative investment strategies in the ‘90s enabling them to benefit from the idiosyncratic sources of value these strategies provide. However, rival private investors get more sophisticated as well, eroding the value from some of the current sources of value and inducing private investors to again develop new investment strategies, thereby producing a new set of idiosyncratic capabilities.

The remainder of the chapter is organised as follows. In Section 2., we present a resource-based framework for levering resources onto the PTP candidate of a specific private investor. In Section 3., we provide a comprehensive overview of the various shared and idiosyncratic sources of value creation associated with public-to-privates. Section 4. discusses the replication and renewal of the private equity investor’s idiosyncratic resources and the evolution of value creation and appropriation in PTPs. Section 5. summarizes the main implications of our framework.

2. A resource-based framework for levering capabilities in PTP transactions

In this section we develop a value-based theory for PTPs that incorporates strategic management theory in financial economics. We consider PTPs as the acquisition of a bundle of resources and incorporate the various potential value creating and destroying components of a going-private transaction.

2.1. Strategic management: replication and renewal of idiosyncratic capabilities

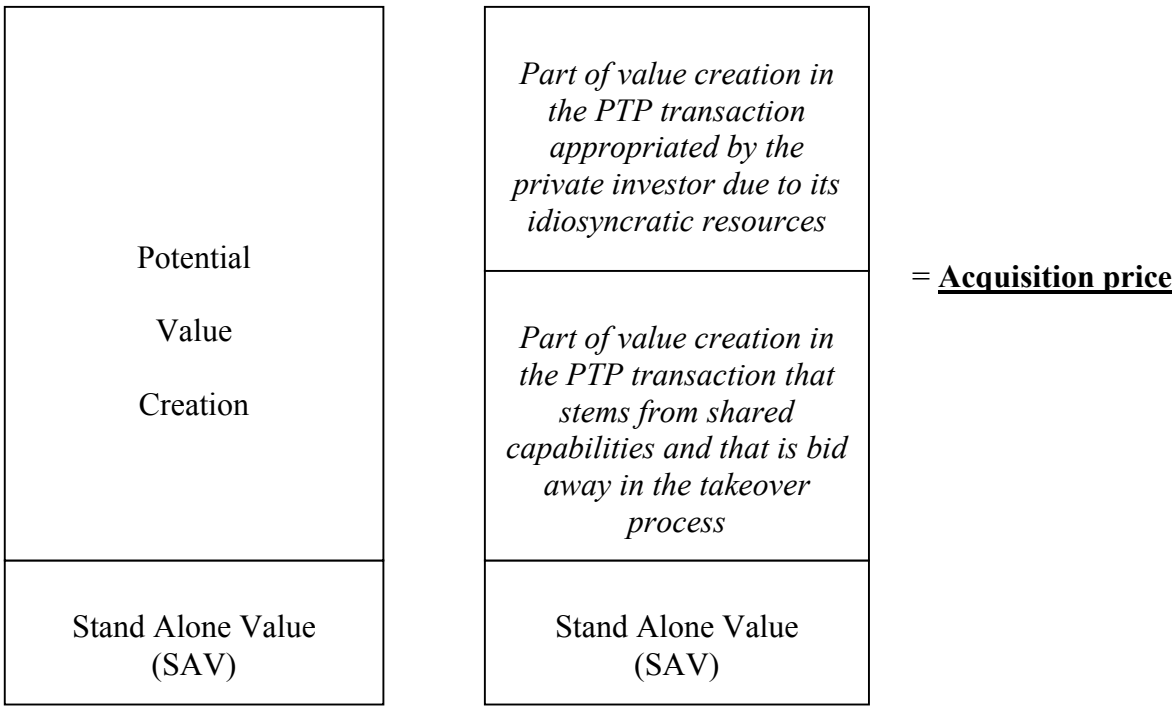
Unlike the public financial markets, the market for private acquisitions is characterized by illiquidity and imperfections. It is a market with few buyers and targets and with a low degree of transparency and high information asymmetry due to the heterogeneity of targets, sellers and potential buyers. We consider each PTP as a purchase of a bundle of resources by an investor that is also regarded as a combination of resources and capabilities. Thus, a PTP leads to capability bundling of the target and the private investor (Wernerfelt, 1984, 1995; Barney, 1991; Peteraf, 1993; Teece, Pisano, & Shuen, 1997).

The extent to which potential sources of value in PTPs are available and give rise to real value creation depends on the buyer’s resources and capabilities that can be levered onto

the acquisition, or the resources of the target that can be levered onto other portfolio companies or even future investment opportunities. Heterogeneity in buyer values can stem from both types of resources, but usually derives from those that the private investor can lever on the target. A firm's value is equal to the value of its current assets-in-place and the value of its growth opportunities (Myers, 1977). Obviously, dependent on the resources and skills of who owns and manages the company, the value of both components changes.

The total idiosyncratic value of the PTP firm is the upper price the private equity investor is prepared to pay. However, the actual price it will pay depends upon the competitive environment and the replicability of its resources. The non-idiosyncratic benefits of a PTP, such as the financial and most of the operational effects, are reflected in the transaction price; appropriating part of the value creation and obtaining abnormal returns stems from exploiting idiosyncratic capabilities which are levered onto the target (see Figure 1.). In order to appropriate part of the value creation, a private equity investor requires distinct valuable resources, and has to focus on deals in which its resources offer the most value creating opportunities.

Figure 1.
Buyer Value Creation in Public-to-Private Transaction



Following the resource-based perspective, the previous investments (other portfolio companies), the experience and the information advantage of a private equity investor will determine its current processes, accumulated resources and position. The key implication is that a given target will have different values for different buyers, with particularly a lot of variance among those buyers that can obtain a fit (synergy or complementarity) between their resources and the target's. For instance, an investor that can undertake the PTP at lower cost, or that is capable of financing the deal by raising a greater amount of debt at better terms, will value the target more highly. Similarly, the PTP target will be more valuable to investors that are best at optimizing management incentives and organizational efficiencies or that are better monitors as a result of their expertise, previous experience or inexpensive and efficient information processing. An information advantage or the ability to achieve one through quicker learning about the target may be a valuable resource. If a private investor possesses a portfolio company that offers potential synergies with the target, or a platform company in the target's industry, PTP targets may tie into a buy-and-build strategy and thus have a higher value to this investor. Another valuable resource might be the fact that an investor already has a substantial stake in the company. This will provide an important information advantage and a better starting position in a bidding contest, as the investor will not have to pay a bidding premium for the shares it has already acquired.

However, the rise in the number of private investors and the resulting increase in competition has resulted in a similar value creating potential for several investors that is bid away in a takeover contest. Competition from the typical rivals (strategic buyers) and new types of investors (PE funds that rely on innovative fund raising or investment strategies), or 'substitution' by new types of transactions (such as accelerated IPOs, in which the intermediate step of buyout fund ownership is skipped over) are ever increasing. Next to this, buyout firms used to have unique networks and relationships that provided them with access to buyout deals that their rivals did not have, thereby avoiding a competitive bidding process. Today however, most significant deals are subject to a visible and public auction process as sellers seek the best price (Harper & Schneider, 2004). Another unique resource for which buyout investors used to be (in)famous are their financial-engineering skills. Though still remaining important, this capability is now widely available and is a necessary competence in order to be in business, but does not provide a barrier that shields from competition as acquisition prices reflect the value inherent in leveraging up the target.

The majority of the sources of value creation in PTPs is replicable by and shared among various private investors; as a consequence, inimitable value creation can only be

obtained by levering unique core competencies onto the target. That is why private equity investors are pursuing innovative investment strategies such as buy-and-build, and are increasing their efforts to specialize and build networks, leading to a renewal of idiosyncratic capabilities. This knowledge-based perspective and the link with value appropriation can be observed in the actual behavior of venture capital and private equity firms. Bygrave (1987) and Barry, Peavy, Muscarella, & Vetsuypens (1990) point to the importance and the increasing level of specialization of venture capital firms in order to build valuable resources and capabilities (e.g., specialized knowledge about innovations, technology), and to distinguish themselves from competitors. Amongst others, Sahlman (1990) also finds that venture capital firms tend to specialize by industry, stage of investment, and geographic area.

Proposition 1: The private equity market will see a further move away from financial transactions into more innovative approaches, that require asset accumulation and specialization, and hybrid deals, which allow the private investor to lever its core competences and to fully exploit its unique capabilities.

Unique capabilities may lead to resource position barriers, meaning that a private investor's specific resources affect costs and/or revenues of rival acquirers, and allow the investor to obtain strong returns. Kaplan & Schoar (2003) show that there are large differences in private equity funds' returns due to funds' idiosyncratic resources and skills. New entrants cannot compete effectively due to the well performing funds' proprietary deal flow and unique ability to provide value added services, resulting in a strong persistency of fund returns. Furthermore, returns improve with partnership experience. Unique resources clearly allow to generate abnormal returns.

Some barriers are self-reproducing: a private investor that is ahead of others may use these barriers to maintain and further extend this lead (Lieberman & Montgomery, 1998; Kaplan & Schoar, 2003). Examples of these resources are an information advantage, experience, reputation or the possession of a platform portfolio company in the industry. Strategic growth options open to a private investor depend therefore on its accumulation of specific resources and its portfolio of companies. Having a toehold in the target company, or having a platform in the target's industry, generates valuable real options. In this way, initial investments may create growth opportunities along the future path. Another way of obtaining an information advantage is through private investments in public equity (PIPE) which may allow to get ahead of rivals and may offer privileged access to potential disinvestments or buyout opportunities (Harper & Schneider, 2004). Thus, the private equity investor's resources give rise to a certain degree of path dependency (Teece et al., 1997). Competition

forces private investors to pursue acquisitions in which they can create most value, and will therefore be driven in the direction of specialisation. Once an investor has specialized, say in biotech, its accumulated resources in areas like information processing or monitoring will make new investments in biotech more attractive than to other investors.

Proposition 2: A private investor's resources and previous portfolio investments determine the value of its current transactions (path dependency) and lead to specialisation, and this specialisation further reinforces the path-dependent character of its investments.

Such investments in resources can be considered as a link in a chain of investment decisions under uncertainty or real options. Where the private investor is going in the future depends on the historical path it has traveled and its strategic plans. As soon as the buyout firm starts down a path it is faced with uncertainty about developments in the private equity market and the target's industry, and with competitive moves. The private investor needs to respond flexibly to those changes and it should not consider the current trajectory along the strategic path chosen as a static scenario but instead dynamically adjust it depending on uncertain developments in the business environment. Obviously, a resource-accumulating and capability-building strategy is history-dependent. The chosen path not only defines which buyout opportunities are available to the firm today but also constrains the future ones. The private equity investor is often able to appropriate part of the value from the path-dependent option to lever its core competences as its unique accumulated resource base results in a unique path towards the investment opportunity. Its idiosyncratic option parameters lead to inimitable value creation. Examples of unique option parameters may be a lower exercise price because of a foothold in the target company or a higher target value due to a unique fit between the target and acquirer's resource base. Alternatively, the private investor may have an exclusive option due to an information advantage that allows to avoid competition for the target.

Proposition 3: The path dependency of investment opportunities (under uncertainty) leads to a unique resource position in which the accumulated resources and the option to lever competences have a higher value to one specific investor than to the other, due to its idiosyncratic buyer value, its unique information and/or its idiosyncratic real option parameters.

2.2. The financial economics perspective: an expanded value-based model for the leverage of path-dependent resources

Private equity firms' willingness to commit funds determines the supply side of this market, whereas the companies who are seeking private equity rather than public equity financing define the demand side.[6] The markets for public and private equity investments are in balance when all the private investment opportunities are financed until the expected net benefit of the marginal private investment opportunity equals the return on a similar public investment in equilibrium. Private equity may provide a number of advantages and thus net benefits over public financing, thereby allowing buyout firms to make money by taking a public firm private while generating high returns for the target shareholders as well. However, the net benefits of PTPs are dynamic as a process of replication of value creation by competitors followed by a renewal of competencies takes place. The traditional net benefits derive from removing inefficiencies at the public target by reducing agency and information problems and levering up the firm.

We expand the traditional perspective on the net benefits by taking into account the potential real option value inherent in PTPs. Thus, our framework incorporates the value of operations, financial side effects and real option value of levering competences and resources. The value of operations is determined by the future free operating cash flows, discounted at the unlevered cost of capital, which purely reflects operational risk. The value of all the financing side effects of the transaction is captured by the (positive) value of interest tax shields and the (negative) value of financial distress costs. The value of learning and the real option value stem from levering capabilities and draws from strategic management theory. The net benefits of a going private are equal to the value of the target to this specific private investor minus the stand alone value on the financial markets:

$$Net\ benefits_i = PTP_i - Stand\ alone\ value \qquad (1.)$$

The value of the public-to-private target to a private investor i is given by PTP_i = value of operations + financial side effects + strategic value of levering capabilities (Equation 2.):

[6] A good description and overview of the private equity market can be found in Fenn, Liang, & Prowse (1997), Wright & Robbie (1998) and Denis (2004).

$$PTP_i = \sum_{n=1}^{\infty} \frac{FOCF_{i,n}}{(1+CA_i)^n} + \sum_{n=1}^{\infty} \frac{CFTS_{i,n}}{(1+RTS_i)^n} - ECFD_i - COST_i + ROV_i \qquad (2.)$$

where PTP_i = value of the public-to-private target to a specific private equity investor i, given its resources and capabilities

= SAV (standalone value of PTP target) + sources of value creation of private investor i – sources of value destruction of private investor i

$FOCF_{i,n}$ = expected free operating cash flow of target firm in year n, after PTP by private investor i

CA_i = cost of equity of target firm, after PTP by private investor i

$CFTS_{i,n}$ = expected cash flow of interest tax shields of target firm in year n, after PTP by private investor i

RTS_i = appropriate discount rate of interest tax shields cash flows of target firm, after PTP by private investor i

$ECFD_i$ = expected costs of financial distress of target firm, after PTP by private investor i

$COST_i$ = costs of the PTP operation for private investor i

ROV_i = real option value of the portfolio of growth opportunities and learning that the target offers to private investor i

All of these elements are equal to their value before the PTP, adjusted for the change brought about by the PTP by investor i. For example, $FOCF_{i,n} = FOCFsa_n + \Delta FOCF_{i,n}$ = expected free operating cash flow of standalone firm in year n + change in expected free operating cash flow of target firm in year n after PTP by private investor i.

The first component of the value and thus of the net benefits, "value of operations", is determined by the free operational cash flow and the cost of equity (=cost of assets). The overview of the various value components (discussed in detail in Section 3.), along with the supporting empirical evidence, shows that operational cash flow generally increases after PTP transactions, while investments in fixed assets and net working capital are reduced. At times, this has lead to a considerable rise in free operational cash flow and value. However, the impact of a PTP on the cost of equity (CA) is twofold. On the one hand, the cost of equity for new investors will be lower because business risk is often reduced; on the other hand, there is a lack of liquidity and diversification for these shareholders, resulting in a considerable rise in

the cost of equity. Empirical evidence makes no general statements about the overall change in the cost of equity.

The second component, "financial side effects", considers interest tax shields and potential costs of financial distress. As noted, public-to-private transactions are financed to a large extent with debt. Evidence shows that improved operational performance results in a further increase in interest tax shield cash flows (CFTS), as well as a lower risk associated with these cash flows (RTS). The other financial side effect, expected financial distress cash flows (ECFD), has a negative impact on the target's value. While the concentrated ownership presumably leads to improved firm performance after the PTP and a lower chance of financial distress, higher leverage increases the probability of distress. A final aspect is the transaction cost (COST) that is incurred in the PTP operation.

In this study, we add a third component, "strategic side effects". This new factor reflects cross-time growth options and synergies, that result from levering competencies and capabilities onto the buyout target. When the value of operations and financial side effects is fully incorporated in the acquisition price due to competitive forces, private investors need to search for unique capabilities that allow them to capture value creation. Recently, private equity investors have been more and more involved in hybrid transactions, and financial investors try to capture strategic benefits as well. The third component thus involves organizational change and the real option value (ROV) of the growth opportunities a buyout target provides in conjunction with other portfolio companies of the private investor, as well as the value of information learned by undertaking the buyout.[7]

For instance, the potential buyout candidate may be part of a buy-and-build strategy in which a private equity investor initially undertakes a platform acquisition and then leverages core competencies onto follow-on acquisitions in a broadened geographical base. The investor acts as an industry consolidator and aims to transform several smaller companies into an efficient large-scale network. The initial platform acquisition generates the real option for further acquisitions. The investor's leverage of its core capabilities onto the target may have two effects in Equation 2.. First, value adding services, reputation effects and synergies result in increased value of operations and financial side effects (interactive effect). Part of this value may be reflected in the acquisition premium. Second, if the PTP target offers growth

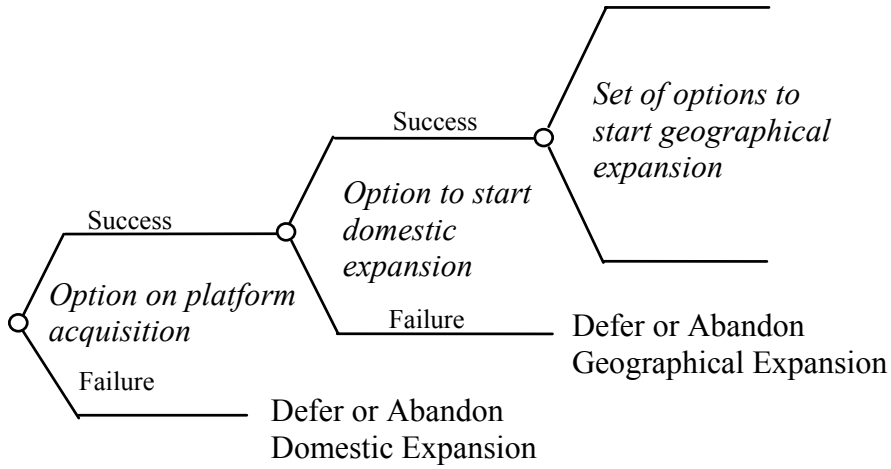
[7] We choose to present the various sources of value creation in an additive form which allows for a clear presentation of the various factors; however, we acknowledge that the leverage of core competencies and the capability bundling may result as well in interactive effects between our various value components.

opportunities or valuable information to the private equity investor, it contains real option value (ROV).

Asset accumulation strategies under uncertainty such as buy-and-builds should not be considered as static investment strategies but rather as (a path-dependent) series of options as presented in Figure 2.. Investors may always choose to forego planned follow-on investment opportunities if such a build strategy turns out worse than expected. To assess the flexibility value provided in a buy-and-build strategy, we have to look forward to how the industry might evolve and then reason back to when follow-on acquisitions are undertaken. This is equivalent to the backward induction principle of option valuation. The dynamics of the synergistic effect can be modeled with a binomial event tree over the estimated horizon of the buy-and-build strategy, according to favorable or unfavorable developments in the sector. The valuation is rather complex as the strategy may involve a collection of interacting and sequential real options. Further follow-on acquisitions in several geographic locations could increase cash flows as a result of cost and marketing efficiencies. Figure 2. presents a simplified structure of the value of synergistic opportunities (In Section 3.4.3. we provide a numerical valuation example of a path-dependent option). Future follow-on acquisitions can be undertaken, i.e., options can be exercised, after indications are received as to the likely potential speed of consolidation and as uncertainty about the success of the build-up is resolved over time. The opportunities that are available to a private investor in the later stages depend on the acquisitions taken earlier on (=accumulated resources), and thus one can observe a clear path dependency in the (value of) the further build-on acquisitions.

Figure 2.
Staged Decisions within a Buy-and-Build Strategy as a Set of Options

The PTP of the platform target can be regarded as providing a compound call option on the average synergestic effect with a time to maturity equal to the horizon of the build-up. The build-up will only be carried out if developments in the build-up process are more favourable than expected, and therefore the option on the synergetic effects has a higher value than the current expected synergies. The exact value can be computed by looking forward to how the industry might evolve and then performing a backward induction reasoning to see when follow-on acquisitions are undertaken. Acknowledging that the platform target generates the opportunity to make further build-up investments in the future, captures the full value of the target, both the value provided by current actions and the value provided by future growth opportunities. An expanded adjusted present value is hence needed to refect all sources of value in a PTP transaction.



PTP of a platform company with reputation and competencies	Leverage of core competencies onto a broadened geographical and financial base	Consolidation, build up scale in a fragmented market	Exit as the business has been built to the desired level

3. A categorization of capabilities and sources of value in going private

The high PTP takeover premiums averaging 30% to 50% on top of the share price, which is presumably close to the fair value of the standalone company in efficient markets, indicates that, at times, PTPs favourably affect firm value. This section reviews the various value-creating components in a public-to-private transaction, which all have to be evaluated in light of the distinct capabilities of the private investor. We distinguish between the sources of value that draw on common resources and that are available to many private investors, and those that are unique since they require idiosyncratic capabilities. However, we acknowledge that there is a dynamic evolution in the idiosyncratic nature of the capabilities. For instance, removing inefficiencies linked to agency problems and financial engineering used to be rather

unique skills in the '80s. Thus, our categorization is to some extent time-dependent and reflects the current state of the buyout market.

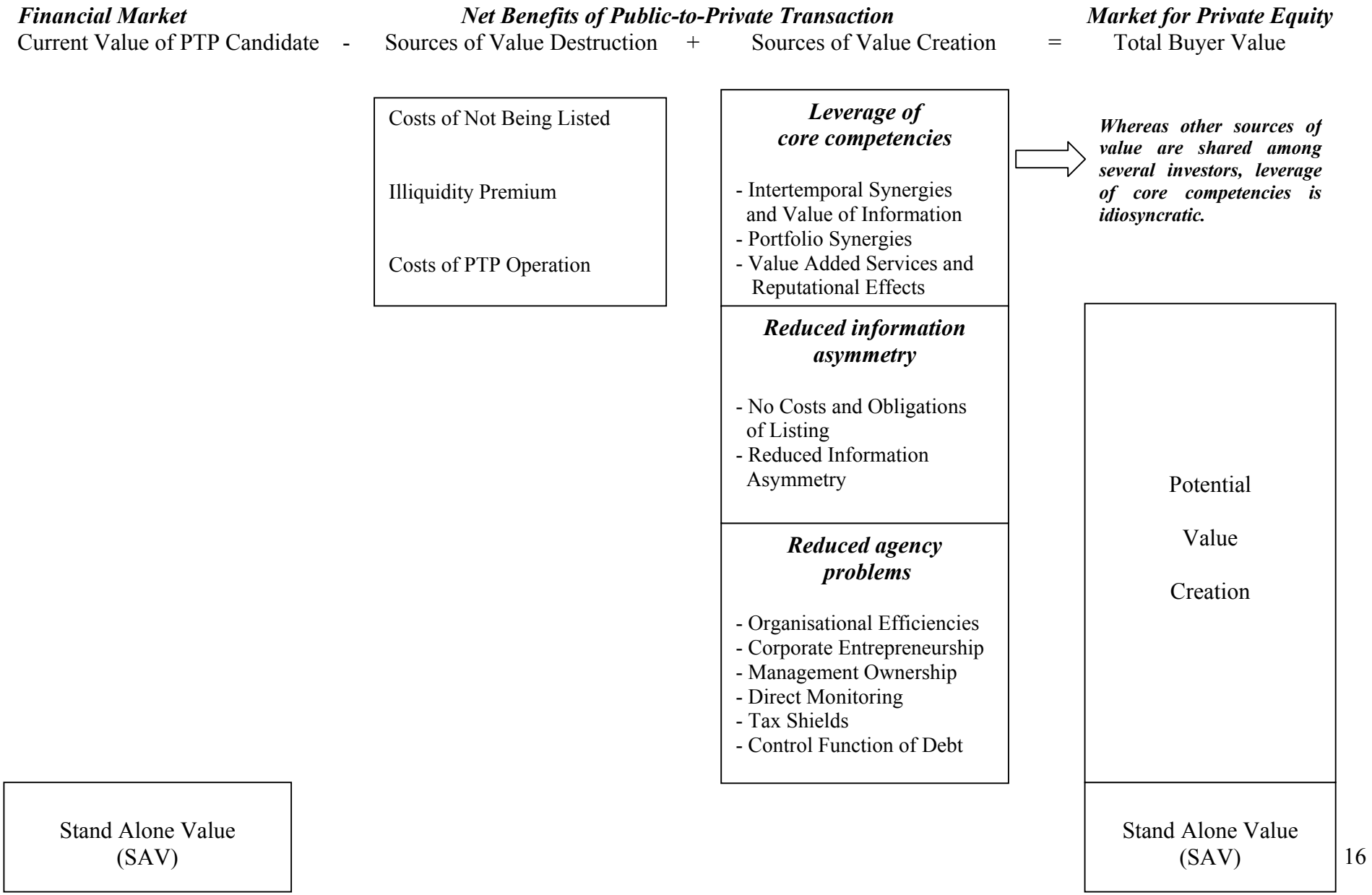
The starting point in our framework is the stand alone company (as is), whose value might be improved substantially by a going-private transaction. The standalone value[8] of the PTP target is the firm value when traded, given the current potentially suboptimal organisational, governance and incentive structures. The first category of value sources stems from resources and capabilities that are shared and have a rather similar value to several private investors. They often include the costs of the PTP transaction, reduced agency problems and reduced information asymmetry. The second category of sources of value consists of resources and capabilities that are rather unique to each private investor. The PTP firm may benefit from value added services by the private investor and from reputational effects. Furthermore, there might be potential synergies and growth opportunities generated in tandem with the private investor's current or future portfolio companies. In addition, undertaking the PTP might contain considerable learning value.[9]

Figure 3. presents an overview of the value creating and destroying factors, which together determine the total idiosyncratic buyer value of the buyout firm and the net benefits of the transaction. To value a specific PTP target, given the private equity investor's resources, all value creating and destroying components of the PTP should be estimated within the new organisational, governance and incentive structure, which will affect how these items are reflected in our framework. As a starting point, one can depart from the value components for the standalone firm, and take into account all changes due to the going private transaction.

[8] Usually firm value on the financial markets is equal to the standalone value of the firm; however, there might be reasons for deviations. For example, takeover speculation may lead to a higher stock market price.

[9] Next to the above sources of value, one can find two other frequently mentioned reasons in the literature for why public-to-privates exist: opportunistic behavior/private information of the firm's management, and wealth transfers to the shareholders. However, in contrast to the above sources, these do not represent real sources of value creation. In the best case, there is only a transfer of value from other parties to the new shareholders. Moreover, these transfers are non-existent or only minimal (a.o. DeAngelo et al., 1984a; Marais, Schipper, & Smith, 1989; Muscarella & Vetsuypens, 1990; Smith, 1990).

Figure 3.
The Net Benefits and Idiosyncratic Value of a Public-to-Private Target



3.1. Non-idiosyncratic sources of value destruction in a PTP

For some firms, a public-to-private may be worth considering, but it comes with a range of costs. A private firm suffers from an illiquidity discount. Amihud & Mendelson (1986a,b) show that the lower the liquidity of a financial asset, the higher is its required return, controlling for risk. By comparing the price of illiquid restricted and publicly traded stock, Amihud & Mendelson (1988) estimate this illiquidity discount to be 25% to 30%. The PTP transaction itself is expensive due to transaction costs and due diligence fees. Kaplan (1989a) reports median fees of 4.65% of the market value of equity two months before the buyout proposal. In Rappaport's (1990) view, a PTP transaction is a transitory stage by nature and cannot be a fully fledged alternative for public companies. Concentrated ownership and high leverage do not allow PTP firms to be flexible or to optimally adjust to changing economic and competitive environments. DeAngelo & DeAngelo (1987) suggest that private firms may face a higher cost of capital and that their investment is limited by the availability of senior claim financing at acceptable terms, the level of operational cash flow, and the ability and willingness of current shareholders to raise equity capital. A risk-averse manager whose wealth is entirely invested in his own PTP firm will generally bear a welfare loss due to a lack of diversification (Jensen & Meckling, 1976). Besides, this lack of diversification may induce managers to take suboptimal actions. The need for capital, a desire for higher liquidity and better diversification to spread risks may eventually lead to a public sale of the PTP firm. Another disadvantage is that the PTP abolishes the single best source of information about corporate value: the daily stock price. Furthermore, a delisted company cannot enjoy the advantages of being a public firm: the ability to raise new capital on public markets and to pay for takeovers with shares; the availability of cheaper financing sources; publicity and credibility; a better image and quality label; the opportunity for shareholders to diversify their holdings; reduced transaction costs and a lower cost of capital; employee and management motivation through share ownership and stock option schemes; and enhanced corporate professionalism because of organisational, control, and governance requirements for public companies (Roëll, 1996; Pagano, Panetta, & Zingales, 1996, 1998).

Although there are only a limited number of sources of value destruction, especially in comparison to the numerous sources of potential value creation, the importance of these disadvantages and costs are significant and are not offset by the benefits for most public firms.

3.2. Non-Idiosyncratic sources of value creation in a PTP: reduced agency problems

Reduced agency problems include the control function of debt, the associated tax shields, direct monitoring, management ownership and increased entrepreneurial spirit.

3.2.1. Control function of debt. When there are excess resources, management is particularly prone to making suboptimal decisions: this is the 'free cash flow' theory (Jensen & Meckling, 1976; Jensen, 1986). Higher leverage lowers free cash flow and the opportunities for waste and abuse of corporate resources. Furthermore, there is the pressure to perform well since failure of meeting debt services or interest payments can lead to financial distress. This is the control function of debt (Jensen, 1986). On the other hand, a leveraged buyout increases bankruptcy risk due to the higher debt load, but this is (partly) compensated by a reduction in business risk, due to increased management incentives, as well as organisational and strategic changes (Palepu, 1990). This business risk reduction allows for higher leverage. The private investor usually has long-term relationships with institutional lenders, and therefore has reduced incentives to transfer wealth from lenders. This again allows for greater borrowing (DeAngelo, DeAngelo, & Rice, 1984a). A significant positive relation exists between undistributed cash flow, the decision to go private, and the takeover premiums paid (Maupin, 1987; Singh, 1990). Moreover, this relation is very strong for companies in which management holds little stock. Competitive forces in the financial sector and the commoditizing of financial-engineering skills result in debt terms that are rather similar for different private investors.

3.2.2. Tax shields. The substantial reliance on debt financing results in an increase in tax-deductible interest payments. In some cases, there is also a tax advantage through a scale-up in the asset (and depreciation) base of the buyout firm for the acquirer. The tax advantage stems from the enlarged debt capacity resulting from the new incentives and better firm performance (Kaplan, 1988;1989b).[10] Increased monitoring of management by the buyout specialist also permits higher use of debt and increases the accompanying potential tax shields (Hite & Vetsuypens, 1989). Numerous researchers notice that the tax advantage in PTPs is an important source of value (a.o. Hayn, 1989; Kaplan, 1989b; Maupin, 1989; Smith, 1990; Newbould, Chatfield, & Anderson, 1992; Opler, 1992). PTP firms with higher operating

[10] Kim & Sorensen (1986) find that companies with greater insider stock ownership have more debt than firms with diffuse ownership, which is made possible by stronger management incentives to perform.

returns make use of higher leverage in order to optimize tax shields (Roden & Lewellen, 1995). Tax shields typically provide a non-idiosyncratic source of value.

3.2.3. Direct monitoring. In contrast to the fragmented ownership in financial markets concentrated firm ownership provides increased monitoring and disciplining incentives. Barry et al. (1990) find that venture capitalists specialize their investments to provide better and more intensive monitoring. The larger the participation, the more monitoring is performed by the private equity investor, and the larger the chance of having a seat on the board of directors (Lerner, 1995). Singh (1990) finds that the board of directors after a PTP is more focused, the board consists to a larger extent of institutional investors rather than reputated individuals or CEOs from other firms, and that directors now are larger shareholders with better monitoring incentives. In studying private equity financings, Wruck (1989) finds that an increase in ownership concentration has a positive impact on firm value. The private investor's monitoring incentives are further improved because its investment is illiquid and cannot be sold off when management fails to take value maximizing actions (Wright & Robbie, 1998).[11] Lichtenberg & Siegel (1990) find that after a PTP, total factor productivity increases and the number of supervisors is reduced, due to better monitoring incentives.

3.2.4. Management ownership. In public companies, the separation of ownership and control (stockholders and management) may have disadvantages if insufficient disciplining is imposed upon management. Management may strive for excessive corporate perquisites, power, status, prestige or visibility, and may try to grow or diversify the company so as to reduce risk and guarantee their own jobs, thereby destroying value (Berle & Means, 1932; Jensen & Meckling, 1976; Amihud & Lev, 1981; Jensen, 1989; Morck, Shleifer, & Vishny, 1990). In management buyouts, management becomes a (substantial) shareholder[12], agency costs are strongly reduced and management compensation is linked to firm performance, thereby providing managers with the right incentives (Berle & Means, 1932; Jensen &

[11] Furthermore, the high amount of debt financing, the high sensitivity of share value to firm performance induced by this substantial leverage, and the higher chance of facing liquidity problems all create additional monitoring incentives (Hite & Vetsuypens, 1989). Besides, management now is a major shareholder and will better monitor itself. In addition, there is generally a positive relationship between Tobin's q and the fraction of shares owned by institutional investors, who have better incentives, greater expertise and can perform lower-cost monitoring. This institutional ownership further increases the positive effect of insider ownership on corporate value (McConnell & Servaes, 1990).

[12] Jensen & Murphy (1990) find that the median CEO in a PTP firm has a 6.4% equity stake, as compared to 0.25% for the median CEO in a Forbes1000 company. Kaplan (1989b) and Smith (1990) estimate that top management in a PTP respectively holds 22.6 % and 16.7 % of the shares, which is much higher than in public companies.

Meckling, 1976). Moreover, the private equity investor makes use of sophisticated financial contracts, such as convertible preferred stock and redemption rights, that tie the distribution of cash flow, voting, control and liquidation rights to the firm's performance so as to optimize management incentives (Admati & Pfleiderer, 1994; Trester, 1998; Kaplan & Strömberg, 2000, 2001).

Suboptimal management behavior can arise due to information asymmetry between stockholders and management and the lack of adequate disciplining mechanisms. In principle, sanctions should be imposed on this inefficient performance by the product and factor markets (Hart, 1984), the managerial labor market (Fama, 1980), the capital markets (Easterbrook, 1984), internal control systems and the market for corporate control (Manne, 1965; Jensen & Ruback, 1983). However, these mechanisms are not always very effective, which is partly due to information problems.[13] Successful private investors are able to mitigate uncertainty by reducing information asymmetry and impose disciplining mechanisms.

Takeover premiums in the '80s are larger when management holdings are lower, indicating higher potential agency costs (Easterwood, Hsieh, & Singer, 1988). The observed positive effects of PTPs are higher for management buyouts than for non-management buyouts (Grammatikos & Swary, 1986; Travlos & Millon, 1987), and management ownership in PTPs has a positive influence on managerial motivation and leads to enhanced working conditions, better attitudes and improved relationships with other managers.[14] It is management stock ownership, rather than increased leverage, that is responsible for the change in objectives, strategy, organisational structure and performance (Thompson, Wright, & Robbie, 1992; Phan & Hill, 1995; Holthausen & Larcker, 1996).

3.2.5. Organisational efficiencies/Corporate entrepreneurship. Many PTPs restructured businesses that had overdiversified in earlier merger waves (Wright, Thompson, & Robbie, 1991). These firms were typically characterized by certain organisational inefficiencies, such as an excessive head office staff or a central, bureaucratic internal control system (Fox & Marcus, 1992). Downsizing, decentralisation and reorganisation by divesting unrelated assets and business units generated various benefits (Jensen, 1989). Decision power was transferred to those closely involved in the business process, leading to accelerated and better informed decision-making (Fama & Jensen, 1983; Lowenstein, 1985; Hite & Vetsuypens, 1989; Palepu,

[13] This was pointed out by Liebenstein (1966), Williamson (1975), Jensen (1986, 1989, 1993), Shleifer & Vishny (1988) and Rappaport (1990), among others.

[14] Long (1978) points out that employee ownership in general gives rise to improved employee attitudes, more integration, involvement, commitment and satisfaction, and improved organisational performance.

1990). Increased visibility of performance and responsibility lead to better management incentives and monitoring (Child, 1984), and middle management positions were eliminated, thereby further encouraging decentralisation and increased accountability (Baker & Wruck, 1989; Easterwood, Seth, & Singer, 1989). Management also developed a more entrepreneurial attitude with respect to innovations (Hill & Snell, 1989; Busenitz & Barney, 1997).

Most of the above organisational improvements are even more important in management buyouts of business units of large diversified groups, where the internal labor and capital markets, as well as central monitoring, do not always perform adequately (Thompson & Wright, 1987). Investment funds may not be allocated on the basis of rates of return, but rather as a result of relative internal power relations or strategic planning based on non-profit maximizing objectives. Moreover, problems may occur because of limited central resources, bad monitoring and lack of adequate incentives.[15] To meet their short-term objectives, management of public firms may sometimes sacrifice valuable long-term projects. After a PTP, strategic controls generally replace financial controls as owners are now closely involved in managing the company and making key decisions. This control change facilitates investing in profitable long-term projects, and encourages spending on innovation and corporate entrepreneurship activities (Baysinger & Hoskisson, 1990; Hitt, Hoskisson, & Ireland, 1990).

The enabling and facilitating roles of collective ownership and the freedom from inappropriate corporate control are important justifications for PTPs (Green, 1992). PTPs result in better resource allocation and improved organisational and strategic decision-making. Several studies show that PTP firms are more innovative, introduce more new products, pursue more new markets and enlarge their customer base (Kaplan, 1989c; Malone, 1989; Bull, 1989; Wright, Thompson, & Robbie, 1992). There is a higher commitment to developing new products and commercialising new technology; the quality and size of the R&D function is enhanced; and new business creation activities are intensified. New R&D projects and new product introductions usually lead to an increase in firm value (Zahra, 1993). PTP firms focus more on their core activities and show lower growth in terms of personnel and sales. Firm size and the degree of diversification are reduced, and firms stress efficiency rather than growth (Seth & Easterwood, 1993; Phan & Hill, 1995; Wiersema & Liebeskind, 1995).

[15] For instance, Jones (1992) finds that PTP firms use planning, management accounting and control systems that are better tuned down to the organisation, as these systems no longer need to conform to the parent.

3.3. Non-idiosyncratic sources of value creation in a PTP: reduced information asymmetry

Reduced information asymmetry include the underinvestment problem and the costs of being listed.

3.3.1. Reduced information asymmetry between firm and financier – the underinvestment problem. In some cases, information asymmetry and the accompanying adverse selection problems make public financing inaccessible or too expensive because the capital markets are unable to adequately evaluate projects and companies (Akerlof, 1970; Myers & Majluf, 1984; Amit, Glosten, & Muller, 1990; Lerner, 1995).[16] If so, firms may decide to forgo investing, even in an intrinsically valuable investment project. Private equity investors are experts in information gathering and processing, in screening potential investment targets and in long-term follow-up of their portfolio companies (Chan, 1983). Syndication, networking and specialisation make their information collection and processing much more efficient (Bygrave, 1987; Lerner, 1994; Gifford, 1995). Fried & Hisrich (1994) base private equity investors' information processing benefits on economies of scale, economies of scope and learning-curve effects. Moreover, their concentrated ownership often goes hand in hand with a more direct and complete transfer of information. Private investors are thus more efficient in evaluating projects than the financial market and are better able to finance them at fair terms, thereby allowing the private firm to take on all valuable investment opportunities.

3.3.2. No costs and obligations of stock listing. A stock listing involves a number of costs and obligations, mainly meant to reduce information asymmetry between the firm and its public investors. These include costs for the actual listing, regulatory costs of being a public concern, the costs of disclosing all required information and investor relations costs (see DeAngelo, DeAngelo, & Rice, 1984b). Moreover, listing may bring additional costs and obligations: the potential loss of control due to hostile takeover; restrictions on management's decision power; higher taxes due to increased financial accounts' transparency; investor relations expenses; and disclosing sensitive and strategic information (Roëll, 1996; Pagano et al., 1996, 1998).

Maupin (1987) finds as major reasons for going private: internal cash flows minimize the need for primary equity markets; current share price does not represent fair value; and

[16] This information asymmetry is one explanation for the underpricing of some quoted companies: small caps are not or are to a lesser extent analysed by investment banks, receive limited attention ('neglected firms') and little information is available, leading to depressed stock market valuations as compared to their intrinsic value.

trading activity is low. Furthermore, there are stock market pressures to maintain short-term earnings (partly due to information asymmetry) and stock prices; these pressures may have a harmful influence not only on how events are reported but also on the events themselves. There is a tendency in public companies to emphasize reported earnings at the expense of potential tax savings (Lowenstein, 1985). In contrast, PTP firms focus more on cash flow maximization rather than maximizing earnings and minimizing earnings variability (Lowenstein, 1985; Bull, 1989). Stein (1985) points out that a PTP relieves a firm of the burden of regulation and of market pressures for quarterly results, pressures that inhibit careful attention to long-range planning and shareholder value improvement.

3.4. Idiosyncratic sources of value creation in a PTP: leverage of core competencies

A private investor's bundle of resources combined with the resources of the PTP target determine the total idiosyncratic target value. The acquisition price is determined by the uniqueness of its resources and value creation that derives from shared resources is bid away. This can be observed from the empricial evidence on PTPs presented above: there is a clear relation between the takeover premium and acquisition price and shared capabilities/sources of value, such as benefiting from tax shields, increasing management holdings and reducing excess cash flow. In order to appropriate part of the value creation, a private equity investor requires distinct valuable resources, and has to focus on deals in which its resources offer the most value creating opportunities. The idiosyncratic sources of value include providing value added services and exploiting portfolio and intertemporal synergies.

3.4.1. Value added services and reputational effects. Companies financed by a private equity group can make use of the group's extensive network and relationships: customers, suppliers, other investors, and access to more sophisticated resources in banking, legal and other areas, etc. (Bradford & Smith, 1997). The PTP firm can also benefit from the private investor's expertise and competencies with regard to strategy, operational and financial management, human resources and marketing policy, and mergers and acquisitions (Wright, Hoskisson, & Busenitz, 2001). The private equity investor not only finances the company, but also provides a number of value added services, including valuable direction and oversight, as well as

involvement in the company's day-to-day management as an active consultant[17] (Diamond, 1985; Bradford & Smith, 1987; Gorman & Sahlman, 1989; Sahlman, 1990; Sapienza, Manigart, & Vermeir, 1996). Furthermore, the target company benefits from an increased reputation and higher credibility as it has gone through the private investor's thorough selection process. This might for example lead to enhanced bank financing terms or even access to bank financing in the first place. Though management buyouts have generally been seen as requiring less investor involvement than the more early-stage venture capital investments, some of them may have significant entrepreneurial opportunities which necessitate greater involvement by the private equity provider, who may play an important role in developing the entrepreneurial opportunities dimensions.[18] For such companies, the private investor contributes to top management decision-making by keeping strategy on track, establishing new ventures/acquisitions, broadening market focus, and reviewing R&D, budgets and marketing plans (Bruining & Wright, 2002).

3.4.2. Portfolio synergies.[19] The target buyout firm might provide synergies with the private investor's other portfolio companies. Joint operating efficiencies may result from combining research and development, procurement, distribution, sales and marketing, other business supporting services and headquarters operations. Integration of (parts) of these firms leads to a larger company with increased market power and gives rise to economies of scale. The wider application range of production facilities, process or product know-how and distribution channels provides potential economies of scope.

3.4.3. Intertemporal synergies. The investor resources may have intertemporal synergies with future follow-up investment opportunities. For instance, the potential buyout candidate may be part of a buy-and-build strategy in which a private equity investor initially undertakes a platform acquisition and then leverages core competencies onto follow-on acquisitions in a broadened geographical base. Additional value is created through the consolidation of synergistic acquisitions as operations become more integrated, cost efficiencies are realized, and market share increases. Within such a buy-and-build strategy, acquisitions are no longer

[17] Wright, Thompson, & Robbie (1992) report that 30% of the buyout managers consider the involvement of a venture capital provider very useful. Manigart et al. (2001) show that venture capital firms with specialist skills both add value and are better placed to control risks.

[18] These are: innovativeness, proactiveness, competitive agressiveness, risk taking and autonomy (see e.g. Lumpkin & Dess, 1996).

[19] Usually, synergies and intertemporal synergies are more widely available for strategic buyers than for financial investors; as a result, private investors face heavy competition from these corporate acquirers when trying to take a firm private.

viewed as stand-alone investments but rather as links in a chain of interrelated investments in which the early investments are prerequisites and set the path to follow. Besides, by making investments, firms learn about their capabilities, skills and assets. The PTP target will be valued differently by various investors according to their resource base. Moreover, when initial resources differ, what investors learn by doing the PTP will differ, and the value of this information will also differ as private investors have different real options (Bernardo & Chowdry, 2002).

The flexibility of a sequential or staged acquisition in a buy-and-build can provide great benefits to the investor when there is major uncertainty about the consolidation. Once uncertainty about the success of the first stage is resolved, the investor can expand operations or simply decide not to proceed with the next stage (i.e., not exercise the real option) or even sell the company to another player. Pricing the first of an expected series of acquisitions requires a real options framework, allowing a dynamic analysis of the target's synergistic growth potential. When several private investors may acquire the inital platform company, this concerns a shared opportunity, and a high takeover price is typically paid for this type of investment (only after the acquisition, the platform provides idiosyncratic resources that can be levered onto follow-up investments). Within this framework, it is clear that not only the initial platform has a much higher value than on a stand-alone basis, but this also holds for follow-on acquisitions, which provide potential synergies and further growth options themselves.[20]

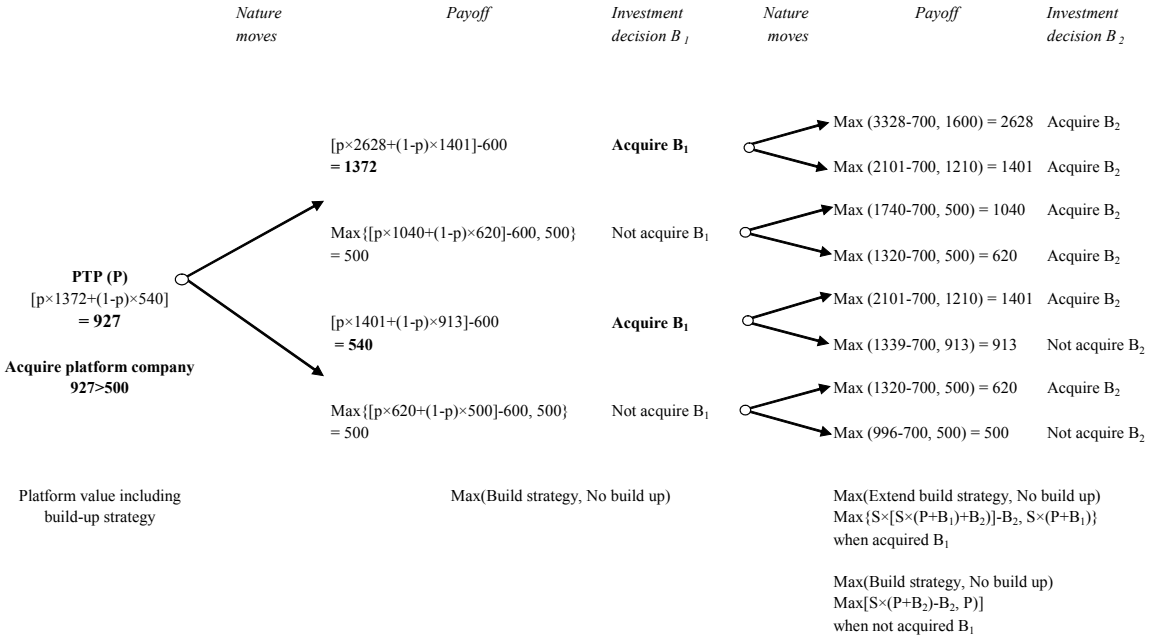
One of many buy-and-build examples is the acquisition of DuPont's connector systems unit (later renamed Berg Electronics) by Hicks, Muse, Tate & Furst in 1993. The buy-and-build included seven follow-on acquisitions, whereby Berg improved its efficiency in marketing and distribution. Berg went public in 1996 and was eventually acquired by Framatone in 1998, providing a generous return to its shareholders. The valuation of the platform company should consider the real option value of future follow-on investments. A buy-and-build unlocks value in several ways. First, there is a financial leverage effect. The investor typically uses a significant amount of debt to finance the acquisitions. Besides creating valuable tax shields, the resulting highly levered financial structure strengthens managerial incentives to improve efficiency and cash flow. Second, a buy-and-build strategy unlocks synergistic value through economies of scale or scope, and the increased size of the consolidated firm is likely to result in enhanced market power. Moreover, as the firm becomes

[20] Smit (2001) provides a comprehensive description and discussion of the buy-and-build strategy.

larger and more mature, the private equity investor is likely to have more attractive exit opportunities.

The future investment opportunities of a private equity investor and their value depend on the resources accumulated and the path chosen by the investor, as the value of levering its core competencies is path-dependent. Figure 4. illustrates a simplified valuation example of an asset accumulation strategy under uncertainty that involves a sequence of decisions. The acquisition of the second build-up firm, B_2, is more valuable when the investor has purchased the first build-up, B_1.

Figure 4.
Real Option Valuation of a PTP Platform Company: A Numerical Example of Path-Dependent Options



In the first period, the firm may acquire the platform company in a PTP (P), which allows for follow-up acquisitions. In the second period, the investor has to choose between making the first build-up acquisition (B_1), providing the opportunity to make further build-up investments, or temporarily not going ahead with the perceived build-up strategy. In the third period, the investor can choose to make an additional build-up investment (B_2) or make no follow-on acquisitions. In the case that B_1 was not acquired, the investor can add follow-up opportunity B_2 to its platform, or abandon the buy-and-build strategy. Note that the choices that are available in the future and the values at the nodes depend not only on the state of

nature but also on the decisions taken along each trajectory. The option provided by the platform company is solved using backward induction.

Suppose that the platform company has a stand-alone value (SAV) of $500 mio (P), the first build-up has a SAV of $600 mio ($B_1$) and the second expansion has a SAV of $700 mio ($B_2$). For simplicity, acquisition prices are assumed to equal the SAV. The synergies of merging are expected to be 10%, but might be higher (up-factor u:1.15) or lower (down-factor d:1/1.15). Thus, we define a synergistic multiplicative factor (S) that indicates how the combined firm value evolves. Its expected value is 1.1, in the next period it may be uS (1.27) or dS (0.96). In the last period, it is equal to uuS (1.45), udS/duS (1.1) or ddS (0.83). In the final period, the firm has to decide whether purchasing the second build-up is more valuable than not investing, in case it has acquired B_1 in the previous period: the value it obtains equals $\text{Max}(S \times [S \times (P + B_1) + B_2)] - B_2, S \times (P + B_1))$. For instance, in the upper branch of the tree (uuS) the value of the combined firms would be $1.45 \times [1.45 \times (500 + 600) + 700)] = 3328$; this value is obtained by purchasing B_2 at a price of 700, and thus has a net value of 2628, which is higher than the value of making no further investment ($1.45 \times (500 + 600) = 1600$). Hence, the build strategy is continued in this situation. In case it has not acquired B_1, the firm has to determine whether purchasing the second build-up target B_2, combined with the initial platform, is more valuable than not investing. The value it obtains equals $\text{Max}(S \times (P + B_2) - B_2, P)$. For example, suppose we are in the lowest branch of the tree (ddS), the value of purchasing B_2 combined with the PTP platform is $0.83 \times (500 + 700) = 996$; the net value is obtained by subtracting the investment of 700 and equals 296. As this value is below the value of the platform when no build-on occurs (500), the private investor does not invest. In a similar way the end node values of all possible trajectories are calclulated. Note that the value of acquiring B_2 is affected by the investment decision to acquire B_1.

In the second period, the investor has to consider whether it acquires the first build-up or not. For instance, in the upper branch of the tree (uS) acquiring the first build-up provides an option on the upper payoffs in the third period: the value of this option depends on those future payoffs and is equal to 1372, which is higher than the value of not investing in the follow-up investment opportunity (500), so B_1 is acquired. In the down branch of the tree (dS) the first build-up provides an option on the payoffs in the third period with a value of 540, which is higher than the value of not investing in B_1 (500); the first add-on acquisition is made.

The value of levering core competences via the add-on investment opportunity depends on the earlier path chosen and the private investor's accumulated resource base. The

value of the follow-up investments is path-dependent in the sense that the value of the end nodes depends on the decisions taken along the path (e.g., in case that B_1 is not acquired, the ddS trajectory results in an end node value of 500, while it results in an end node value of 913 in case B_1 is acquired).

The value of the platform, \$927 mio, can be obtained via backward induction of the option tree using the risk-neutral valuation approach within a binomial model (with p = [1 - d] / [u - d] = 0.465). Therefore, correctly regarding the opportunity to make follow-on investments as an option and not an obligation adds an additional \$126 mio (difference between value within option framework, \$927 mio, and NPV framework, 1.1 × {1.1 × [\$500 mio + \$600 mio] + \$700 mio} - \$600 mio - \$700 mio = \$801 mio) to the value of the initial platform, of which the acquisition provides the opportunity (the compound option) to make follow-on investments. Note that this is a simplified example. The valuation of more realistic cases is based on the same principles, but is often far more complex due to multiple interacting options, competitive interactions and different types of uncertainty.

4. The evolution of value creation and the process of replication and renewal of idiosyncratic capabilities

Management buyouts have traditionally involved the organisational restructuring of firms facing agency problems and operating in mature sectors with limited investment opportunities. The early buyout literature focused on value creation through reducing agency costs, stemming from overdiversification, overinvestment and insufficient accountability. The conglomeration trend of the 1960s reversed itself by the mid-1970s and through the 1980s as changing market circumstances and economic turbulence made many of these conglomerates inefficient. In restructuring moves designed to go back to the core business, many firms divested unrelated and inefficient businesses through sales to private equity groups. In the beginning of the 1990s, economic stagnation and a high level of competition resulted in a drop in investor returns, as most of the private investor once unique capabilities had lost their idiosyncratic nature, and the number of public-to-privates decreased significantly.

Because of competition and imitability, empirical research shows a strong relation between total tax shields and the takeover premium paid in PTPs. The value of tax shields can be obtained by many players and is predictable, and is therefore almost fully reflected in the takeover price (Lowenstein, 1985; Kaplan, 1988, 1989b; Grundfest, 1989; Hayn, 1989; Kieschnick, 1989; Lehn & Poulsen, 1989). This holds as well for the other non-idiosyncratic

resources. On the other hand, buyout investors reap the gains from operating improvements, and these show no relation with the takeover premiums in the '80s (Kaplan, 1989b). Empirical research supports that the investor's distinct resources and capabilities provide a barrier that shields from competition.

With imperfect information, when target values are hard to assess, private investors should be very careful not to overbid and thereby avoid become a victim of the winner's curse. Weston & Chen (1994) find overbidding for many PTPs at the end of the 1980s, due to high competitive pressure from the many buy-out funds that were raised at the time, attracted by the high returns in the early 1980s. The premium paid in buyouts with three or more actual or potential bidders is higher and acquirers show negative abnormal returns (Lowenstein, 1985; Bradley, Desai, & Kim, 1988). Singh (1990) argues that many buyouts are preceded by takeover attempts, hence the private equity investor has to take these other potential acquirers into account. Thus, by the end of the '80s competition clearly affects the bidding premiums paid by private equity firms and strategic bidders and, as a result, the market for PTPs dried up.

The period after 1992, characterized by economic growth, saw a revival of the private equity industry and its profitability. The new investment trend in private equity combined the restructuring motives from the '80s with a focus on growth. Stock market indices at the end of the 1990s reached record levels, resulting in exits at high valuations for private investors. These substantial returns gave rise to the creation of numerous new private equity firms and high commitment levels of funds, thereby increasing supply and competition (Gompers, 1998). This resulted in higher deal valuations and a downward pressure on realised returns. Gompers & Lerner (2000) find that a rise in funds raised and in the number of private equity investors results in higher valuations and lower returns ("too much money chasing too few deals"). A doubling of funds raised by private equity firms results in a valuation level increase of 7% to 21%. As a consequence, due to the change over time in the idiosyncratic nature of the investor's sources of value and capabilities, venture capitalists had to search for new markets. This was stimulated by the declining opportunities in the US and the UK, and their accumulated expertise gave them a comparative advantage over domestic competitors in those markets in seeking out and taking advantage of emerging opportunities (Wright, Thompson, & Robbie, 1992; Wright & Robbie, 1998).

Private equity investors used to be mainly financial investors; during the '90s however, they have become active competitors of strategic players, searching for synergies. While the value creation of buyouts in the 1980s found its origin in restructuring cumbersome

conglomerates, the new trend in private equity focuses much more on the value added of growth. Buyout specialists have developed innovative approaches, and the scope of leveraged buyouts has broadened from mature, slow-growth industries to high-growth industries. Besides the more traditional type of buyouts, in which cost reduction and strategic reorientation are the key value drivers, there are also buyouts that derive their value mainly from product development, innovation and exploiting entrepreneurial growth opportunities.[21]

This evolution is due to a considerable change in the idiosyncratic nature of the various sources of value. Those that relate to reducing agency problems and information asymmetry are not very specific anymore as many private equity investors possess the necessary capabilities to perform these activities. Among these, direct monitoring, obtaining organisational efficiencies and avoiding the underinvestment problem are idiosyncratic to some degree as they require specific information and skills. The sources of value destruction are somewhat idiosyncratic, as one investor is better able to cope with the costs of going private than the other, though these difference are rather limited. However, all of the sources of value described in the section 'leverage of core competencies' are likely to be more idiosyncratic. This holds for the value added services and reputational effects, but even far more for the portfolio and intertemporal synergies. Because every investor has a different resource base and portfolio of companies, there will be substantial difference in the extent to which synergies, both current and intertemporal, can be realised. Therefore, when we look back to our framework, the real option value component in particular will differ among rival private investors.

As the previous investments and the experience of a private equity investor determine its current resources and capabilities, path dependency will become more important for explaining a private investor's acquisition strategy. The private equity market will see a further move away from financial transactions into more innovative approaches and hybrid deals, such as buy-and-build strategies, which allow the private investor to lever its core competences and to fully exploit its unique capabilities. One way to acquire unique capabilities is through specialisation, networking and syndication. Private investors need to develop managerial and operating skills such as marketing and supply chain management that are useful in their whole investment portfolio. In order to make use of these skills in an optimal way, further specialisation in specific industry segments, technologies, geographic

[21] According to its characteristics (managerial/entrepreneurial mindset - aimed at efficiency/strategic innovation), a buyout can be categorized as an efficiency-oriented buyout, a revitalisation buyout, an entrepreneurial buyout, or a buyout failure (Wright et al., 2000; 2001).

areas or investment stages is desirable. Private equity firms might consider partnering up with corporate acquirers, thereby benefiting from the partner's industry-specific knowledge and management capabilities.

5. Conclusions

In this chapter, we use a combination of strategic management theory and financial economics to develop implications for the value appropriation in public-to-private transactions and to explain the observed evolution in this market. Investor-specific competencies and resources allow buyout investors to appropriate the value creation in a PTP. Due to competition in the market for private equity, any value creation arising from shared competencies is fully reflected in the price paid to the old shareholders. An important implication of the knowledge-based view is that private investors should build distinctive resources so as to be in a unique position to create value, and should focus on those going-private deals in which their distinctive resources offer the most value-creating opportunities.

The traditional sources of value creation in PTPs like the financial and some of the operational effects have become non-idiosyncratic. Private equity investors can only appropriate the value created by levering their core capabilities onto the target and exploiting the follow-up investment opportunities the target offers. As a result, the private equity market moves away from the traditional type of transactions based on financial restructuring into more specialization, innovative approaches and hybrid deals. A buy-and-build strategy, for instance, allows the private investor to benefit from levering its unique competencies. Private investors further specialize in specific industries and technologies, and extend their networking and deal syndication to obtain an idiosyncratic resource base. This resource accumulation further reinforces the path-dependent character of a private investor's investment strategy. The path dependency of accumulating resources and making investments under uncertainty result in unique investment opportunities for a specific investor and allow to appropriate part of the value created, due to the idiosyncratic buyer value, its unique information and/or its idiosyncratic real option parameters.

Studies in finance may benefit from incorporating strategy and further linking the two fields (e.g., by considering firms as bundles of resources, acknowledging the occurrence of path dependency, etc.). Valuable future research may be provided by empirical studies of PTPs that explicitly examine value creation given the target's and private investor's unique

resources, and that concentrate more on the ‘leveraging core competencies’ value sources rather than on the widely documented traditional sources.

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9000 GENT

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