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ABSTRACT

Buyouts have been described as a specific form of financial acquisition that leads to potentially substantial, but also highly volatile returns to equity investors. Previous research has illustrated a number of mechanisms through which buyouts cause increases or decreases in company value. While it is important to understand the performance impact of each of these levers individually, we are still missing a comprehensive framework that captures the full complexity of the buyout value generation process and recognizes interdependencies between various factors. In this paper, we develop a three-dimensional conceptual framework for value generation in buyouts that categorizes and links the different levers of buyouts value generation. This framework provides the basis to take a look beyond individual value levers and shed light on the underlying strategic logic of buyouts. We then review the literature on buyouts and categorize previously identified levers of value generation according to our framework. At the same time, we identify a number of levers that have received little attention in the academic literature so far or still lack convincing empirical support for their performance impact. Building upon this assessment of the status quo in research in buyout value generation, we outline an agenda for future research.
INTRODUCTION

Buyouts can be defined as the purchase of a controlling stake in a company (or a division) from its owners, usually financed with a combination of equity and debt and with strong involvement of specialized financial investment companies\(^1\), the so-called buyout associations (Jensen, 1989a\(^2\)). Buyouts represent the later stage investment category of private equity while venture capital represents the early stage (EVCA, 2000; Fenn et al., 1997; Jensen, 1989a). They are archetypes of "unrelated" acquisitions as buyout associations typically manage their portfolio companies completely independent from one another (Baker et al., 1994). This form of takeover is not motivated by potential advantages from the integration of the acquired into another entity ("synergies"), but by the intention to increase the value of the takeover target as a stand-alone business beyond the purchase price (Baker et al., 1994).

In the last twenty years buyouts have emerged as an important field of interest for the financial community as well as for academics (Wright et al., 1998) and modes of value generation have always been at the forefront of interest. Researchers from fields as diverse as finance, strategic management, economics and entrepreneurship have looked at the issue of value generation in buyouts from their respective perspectives and have identified a series of levers that contribute to acquirer returns from buyouts.\(^3\)

In this paper, we provide a comprehensive overview over more than two decades of research on the factors that determine the value impact of buyouts. We identify three independent

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\(^1\) In the literature buyout transactions are variously labeled (e.g., leveraged buyouts, management buyouts, institutional buyout, management buyin, etc.). In this paper we prefer to call the transaction just "buyout", using the broadest term possible. Whenever necessary to be precise, we define the respective term while using.

\(^2\) Jensen, 1989a introduces the term "LBO association" to the discussion. We prefer to use the broader term "buyout association" instead.

\(^3\) Throughout the paper we take a general and broad view on levers discussed, i.e., we do not take value generation levers into consideration that are based on very specific country characteristics. On the other hand it is also possible that some of the levers discussed are not applicable in selected countries due to special legal or tax regulations.
dimensions, along which levers of buyout value generation can be classified in mutually exclusive and collectively exhaustive categories. Out of these three dimensions, we develop a three-dimensional framework that captures the complexity of the buyout value generation process and recognizes the differences between different levers regarding the timing of the effect, the mechanism of value creation and the relevance of specific characteristics of the equity investors. This framework enables us to understand interdependencies between individual levers and the overall process of buyout value generation. We then map levers of buyout value generation that have been previously discussed in the literature according to these three dimensions and highlight implications from our analysis for practitioners and academics.

The remainder of this paper is organized as follows: the first section introduces three independent dimensions of buyout value generation and develops our three-dimensional framework accordingly. We then conduct an extensive review of the previous literature and discuss a variety of levers of value generation that have been proposed, presenting the academic discourse around individual levers whenever appropriate. Our paper concludes with an assessment of the status quo of the research on buyout value generation and outlines promising areas for future research in this domain.
A CONCEPTUAL FRAMEWORK OF BUYOUT VALUE GENERATION

Total value generation in buyouts is the result of a variety of value generation levers working together in a complex process. These different levers take effect during different phases of the buyout, they differ in the way they cause value generation and they can originate either within the target company or evolve out of the interaction between target company and equity investors. To capture this complexity, we have developed a conceptual framework of buyout value generation along three independent dimensions.

Dimension One: Phases of buyout value generation

On the most aggregate level, we can distinguish between three different phases of a buyout: acquisition phase, holding period and divestment phase. This distinction can be made in two respects: regarding the question of when relevant value generation decisions are being taken and during which phase the value generation ultimately takes place.

The acquisition phase starts with the negotiation and due diligence process, during which the investors familiarize themselves with the company and develop a business plan for the buyout. In the case of a management buyout, where current management participates in a buy-out along with financiers (Meulbroek, 1996) this is the time when the foundations are laid for the relationship between the management team that initiates the deal and the sponsoring equity investors. Probably the single most important value determinant in this phase is the valuation of the target company and the corresponding acquisition price on which seller and acquirer agree at

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4 Several researchers who have analyzed value generation in buyouts also address the question whether returns from buyouts come from some form of "wealth transfer" from other stakeholders, such as employees, prior bondholders, prior shareholders, the tax-payers etc. (For an overview see Marais et al., 1989; Palepu, 1990; Lehn et al., 1990; Ippolito et al., 1992). We consider these questions as beyond the scope of our paper and will focus solely on how the various levers contribute to the total value generation.
the end of their negotiations. This entry price sets the hurdle for all future valuations and determines the breakeven point for the equity investors. At the end of the acquisition phase, the acquirer makes important decisions regarding the structure of the buyout, such as the degree of financial leverage, the distribution of management equity stakes, the design of incentive systems, etc. It has been argued that much of the buyout value generation is "front loaded", in that it is determined through decisions that are already taken during the acquisition phase (Baker et al., 1994).

It is during the subsequent *holding period*, that the strategic, organizational and operational changes prescribed in the initial business plan are being implemented and intended operational improvements are being realized. In practice, this is often more of an iterative than a linear process, in which the business plan is constantly updated.

The *divestment* phase constitutes the end of the buyout. It determines the divestment mode (trade sale, IPO, etc.) as well as the divestment valuation, as the final important determinant of buyout value generation. The divestment is a crucial part of the buyout, as it is during this phase that equity investors ultimately realize the returns\(^5\).

**Dimension Two: Causes of buyout value generation**

Value generation in buyouts has been typically analyzed from the perspective of the equity investors in buyout transactions, i.e. in terms of an appreciation of the equity value of a given business over a certain period of time\(^6\). Following simple accounting math, we can

\(^5\) Here we assume that the majority of returns come from the divestment, rather than from intermediate cash flows to the equity investors during the holding period.

\(^6\) Practitioners typically evaluate value generation in buyouts based on the calculation of an "internal rate of return", which corresponds to the compounded annualized percentage increase in equity value.
decompose the equity value of a business into four determinants: valuation multiple, revenues, margin and net debt. This leads to the following equation:

$$\text{Equity Value} = \text{Valuation Multiple} \times \text{Revenues} \times \text{Margin} - \text{Net Debt}$$

Changes in equity value consequently have to be linked to a change in at least one of these four components. Based on this seemingly technical equation of determinants of value generation, we can introduce an important distinction between two basic classes of value generation.

The first type of increase in the equity value of a company is linked to changes in the valuation of the business, i.e. to the assumptions according to which the enterprise value of a company is determined based on a given level of financial performance. Simply speaking, this is captured by the valuation multiple in our equation. The valuation may be partially influenced by changes in the financial performance. On top of that, however, there are several additional factors that can cause changes in the valuation of a company across time. Examples are changes in the market valuation multiples for comparable companies or updated expectations regarding the future financial performance (in terms of expected magnitude and variance of the returns) of a business or an entire industry. Essential for the realization of increases in the equity value of a buyout company are valuations at the time of acquisition and divestiture, which are typically the outcome of a negotiation process between the respective buyer and seller. To reflect the fact that these value increases can occur without any change in the underlying financial performance of the business, we shall hereafter refer to this type of value generation as "value capturing".

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7 Depending on the valuation methods used, it is possible to work with a net profit margin and a net profit multiple, an EBIT margin and EBIT multiple, EBITDA margin and EBITDA multiple, etc.

8 A company that is currently valued at nine times EBITDA and doubles EBITDA often more than doubles its value, as the improved performance often also induces an increase in the valuation multiple, say, from nine times EBITDA to eleven times EBITDA.
The second type of value generation is directly linked to a fundamental change in the financial performance of the target organization, i.e. either to improvements in revenues or margins or to the reduction of capital requirements. Such a change stems from factors such as improvements in operating performance (revenue growth, improved operating margin, etc.), reduced cost of capital (optimization of capital structure, better financing terms etc.) or the freeing-up of resources through a reduction in the required fixed or current assets. Changes in financial performance have an impact on Revenues, Margin or Net Debt (or any combination of these) in our equation. We shall hereafter refer to this type of value generation as "value creation". Changes in net debt can also be related to a conscious decision to change the capital structure, i.e. changing the mix between debt and equity on the balance sheet by replacing one with the other. This does not constitute any change in company value per se and is therefore not relevant to our analysis.

Based on this technical decomposition of buyout value generation into value capturing and value creation, we can illustrate the causal dimension of buyout value generation, which consists of two levels.

We start with factors of value capturing, i.e. levers that have no direct impact on the financial performance, and influence the valuation of the company with a given financial performance (i.e. the valuation multiple).

In contrast to this, the levers of value creation have a direct impact on the financial performance of the business. They can be subdivided according to a two-level generic taxonomy of value creation activities (Porter, 1985; Stabell et al., 1998) into primary and secondary levers. The primary levers have a direct bottom line effect and lead to direct value generation through improvements in financial engineering, operational effectiveness and strategic distinctiveness. In addition to that, we can identify two secondary levers of value creation. These levers do not have
any direct impact on the financial performance or cash flow generation of a company, but enhance one or several of the primary levers of value generation. Secondary levers of value generation include factors such as reducing agency costs or support from the new equity investors. They enhance the effect of one or several primary levers. For example, an increased incentive alignment between target company management and new shareholders does not have any impact on profits or cash flow generation \textit{per se}, but may help to remove operational inefficiencies or to achieve a better strategic positioning (see Figure 1).

**FIGURE 1:** Value generation in buyouts
Dimension Three: Sources of buyout value generation

Different types of buyout value generation can be distinguished according to the degree to which they depend on specific characteristics of the equity investors involved in the buyout. On the one extreme of this dimension, we find value generation that occurs entirely within the boundaries of the portfolio company and that would occur in any buyout context independent of specific characteristics of the equity investors. One example of such "intrinsic value generation" would be value generation through improvements in operational efficiency that were achieved without any form of knowledge transfer from the equity investors. On the other extreme, we have value generation that is inherently linked to specific characteristics of the equity investors (network, expertise, experience, capability, strategy, etc.) and that occurs through an interaction between the portfolio company and the equity investors. An example for such "extrinsic value generation" would be a specific expertise of the equity investors leading to value creation through improvements in the financial performance of the portfolio company that would not have been possible with the skills previously available at the portfolio company itself. Levers of extrinsic value generation are comparable with the effects of a "parenting advantage" that business units may enjoy as part of a multibusiness company (Goold et al., 1994). Clearly, these two extreme cases mark a continuum and many types of value generation fall between the polar ends of this dimension.

CATEGORIZING LEVERS OF BUYOUT VALUE GENERATION

More than two decades of research on buyouts has lead to a number of propositions regarding possible levers of buyout value generation. Many of those are today widely accepted as crucial ingredients of successful buyout transaction. What we have been missing so far is a
comprehensive view on these various levers that enables us to go beyond the analysis of each individual factor and helps us understand the underlying mechanics of buyout value generation. In the following passage, we will revisit the levers of buyout value generation that have been proposed in the literature and categorize them along the three dimensions of our conceptual framework.

**Levers of value capturing**

*Financial arbitrage*

The first important group of levers of buyout value generation that has received substantial attention in the literature can be classified as financial arbitrage, i.e., the ability to generate returns from differences in the valuation applied to a company between acquisition and divestment independent of changes in the underlying financial performance of the business ("buy low - sell high strategy"). The valuation rationale for a company depends on the market valuation multiples for comparable companies, private information and differential expectations regarding the future financial performance of a business or an entire industry and the negotiation process through which buyer and seller agree on the valuation. Financial arbitrage based on any of those four factors may be a source of value generation in buyouts.

Financial arbitrage based on changes in market valuation

First of all, returns to equity investors in buyouts may be influenced by changes in the public market valuation multiples for comparable companies. To the extent that the valuation of the business at acquisition and divestment is correlated with the change in public market valuation multiples, equity investors may benefit or suffer from this exogenous effect. In some cases, buyout investors are able to successfully arbitrage within private markets or between
private and public markets and vice versa or to more accurately predict the future evolution of public market valuation multiples than their counterparts in the valuation negotiation and benefit accordingly. This type of financial arbitrage has received surprisingly little attention in the academic literature so far, even though it is often mentioned by practitioners ("multiple riding"). It does not cause any changes in the financial performance of the portfolio company and consequently constitutes a case of value capturing. It is extrinsic to the portfolio company, in that it largely depends on characteristics of the buyout investors and is determined exclusively during the acquisition and divestment phases.

The valuation of a business is typically also based on expectations regarding magnitude and volatility of its future financial performance, so information about the future development of the business plays a crucial role in the valuation process. Information asymmetries between the equity investors and their counterparts in the valuation negotiation can consequently be another source of financial arbitrage. In general, we can distinguish between two different types of information asymmetry: an informational advantage because of insider information and because of a unique expertise in an industry. Both of these can be a source of value capturing.

Financial arbitrage based on private information about the portfolio company

Early on, it has been argued that insider information could be an important value lever in buyout transactions (DeAngelo et al., 1984; Lowenstein, 1985; Wright et al., 1985; DeAngelo, 1986; Jensen, 1989a; Lehn et al., 1989; Opler, 1992), especially in management buyouts (MBOs) where the incumbent management is part of the equity investors and can take direct advantage of their information advantage vis-à-vis the previous owners through an equity participation in the transaction.
It has been argued that an opportunistic management team could take advantage of private information on the future development of the company (Ofek, 1994). In extreme cases they could even depress or manipulate reported or forecasted earnings9 (Lowenstein, 1985; DeAngelo, 1986; Hite et al., 1989) to lower the acquisition price, i.e., to buy a company for less than a similarly informed bidder would be willing to pay, and informed owners would be willing to accept (Kaplan, 1989b). In this case vendor's shareholders may be considered to have experienced a loss if the transaction allows managers to exploit their private information (Palepu, 1990; Thompson et al., 1992).

While it is imaginable that severe under-pricing may have been frequent in the early years of buyout growth (Wright et al., 1985), subsequent observations on buyout performance should have alerted later vendors to the need to anticipate gains and to price accordingly (Thompson et al., 1992). Furthermore it seems unlikely that managers of buyout targets have systematically hidden information about earnings and prospects and have been able to monopolize the bidding (Lowenstein, 1985; Palepu, 1990; Singh, 1990). Acquisitions usually underlie extensive disclosure requirements (Lee, 1992) and need to be evaluated by independent committees of the board of directors and not only by the managers themselves (Magowan, 1989; Palepu, 1990; Kohlberg, 1989). Additionally, the increase in buyout activity, the associated professionalisation of vendors, and the increased activity of security analysts, as well as the establishment of open auctions as the de-facto standard selling process (Jensen, 1989b; Wright et al., 1996; Indahl et al., 1998; Wright et al., 2001) should have minimized the importance of insider information as a

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9 See Lowenstein, 1985 for a detailed description of possible insiders' techniques intended to directly or indirectly depress the price of a company (e.g., cutting the dividend or increase it less than the market expects; officers decline to meet with security analysts, thus witholding the kind of detailed information and access to senior officers without which analysts and investment advisors do not feel comfortable; accelerate investment in long term projects for a period of time, thereby reducing reported earnings without affecting intrinsic or enterprise value)
source of value capturing. Therefore, we come to the same conclusion as Singh, (1990), that "the pure managerial opportunism argument implies a higher level of manipulation of superior information by management teams than is feasible in a competitive acquisition environment".

Additionally, it should be kept in mind that only one special type of buyouts, the management buyout, allows the exploitation of this kind of informational advantage (Long et al., 1993a) and that other types of buyout transactions like management buyins or institutional buyouts have gained increasing importance in recent years (Wright et al., 1996; Indahl et al., 1998).

However, while private information may not be the sole or dominant reason for buyout transactions, favourable inside information is likely to be a motivation for managers to propose an MBO (Lee, 1992).

To our knowledge, another type of financial arbitrage through information asymmetries has not received any attention in the literature so far. Value capturing is also possible through the exploitation of information advantages during the divestment phase, namely in cases where the post-buyout acquirer holds more advantageous believes regarding the expected financial performance of the portfolio company than the (better informed) selling buyout investors. Such information asymmetries may occur with or without some form of intentional "window dressing" by the selling party.

Financial arbitrage based on the exploitation of private information of the portfolio company management team does not fundamentally impact the financial performance of the business and thus also belongs to the class of value capturing. It is extrinsic to the portfolio company, as it is linked to the specific characteristics of the equity investors (which includes the
Financial arbitrage through superior market information

Financial arbitrage through information asymmetries does not necessarily depend on private information, but may also be a result of a unique expertise in assessing the value of a business based on market intelligence. Buyout associations are known for their extensive organisational and people networks. Their constant contact with a wide range of companies and top managers allows them to build up a significant industry expertise (Anders, 1992). This provides them with access to superior market information as well as the ability to interpret them in a way that gives them a competitive advantage over the average market participant (Fox et al., 1992). Like all other cases of financial arbitrage, such value generation is a case of value capturing. It is extrinsic to the portfolio company as it depends on a specific expertise of the buyout investors and can happen during the acquisition or the divestment phase.

Financial arbitrage through superior dealmaking capabilities

Financial arbitrage can also be linked to distinct capabilities in "deal making", i.e. the ability to identify suitable acquisition targets, limit the competition from other potential buyers and manage the negotiation and acquisition processes (Wright et al., 1996); (Baker et al., 1998). Large and well-established buyout associations conduct regular and systematic reviews of the market for potential buyout candidates, and at the same time obtain useful information about various industries' developments (Anders, 1992). Often, these companies are part of a network that allows privileged access to transactions ("proprietary deal flow") (Kaufman et al., 1993; Wright et al., 1996).
The limitation of competition from other potential buyout or strategic investors for the target company has a strong impact on the resulting acquisition price. Whereas in exclusive negotiations, buyer and seller will agree on a acquisition price somewhere between their respective valuations of the company, competition tends to bid up the acquisition prices to the valuation of the second-highest bidder, reducing the value that can be captured by the winning party to their unique value generation potential (Barney, 1988). Similarly, buyout associations can leverage their network to optimise their exit strategy for the portfolio company, either through the identification of a suitable buyer or through the preparation of a public offering. Again, the ability to make an exit mode possible that leads to the highest valuation for the business, contributes to the value generation for the buyout investors.

In addition, buyout associations approach potential acquisition targets with sensitivity and are perceived as excellent and tough negotiators that are willing and able to adjust their negotiation postures and objectives as a deal evolves (Butler, 2001).

Financial arbitrage due to deal making and negotiation skills is a case of value capturing, which is exogenous to the portfolio company and can take place during both acquisition and divestment phase.

Financial arbitrage through an optimisation of corporate scope

Sophisticated buyout investors are able to identify and exploit the so-called conglomerate discount effect, taking advantage of the fact that a multi-unit company may be less valuable as a whole than divided into pieces. Through the sale of peripheral undervalued businesses ("asset stripping"), buyout investors remove the conglomerate discount and benefit from the appreciation in the value of their assets (Magowan, 1989). This technique has been widely applied during the early days of buyout growth in the United States (Singh, 1993).
Financial arbitrage through an optimisation of corporate scope is a case of value capturing, which is exogenous to the portfolio company and can take place during all three phases of the buyout process.

**Levers of value creation: Primary levers**

While financial arbitrage leads to value capturing without improvements in financial performance of the portfolio company, other levers of value generation improve the financial performance and generate real gains in the value of the acquired company (Kitching, 1989). They trigger a corporate restructuring process leading to significant and rapid changes in the firm's capital structure, assets and organizational structure and the corporate governance regime (Lichetenberg *et al.*, 1990; Singh, 1993; Lei *et al.*, 1995). Company's objectives get revised and have in turn important consequences for the operating and strategic decisions of the firm. (Seth *et al.*, 1993. In line with the second dimension "causes of buyout value generation" from our framework, we will first concentrate on primary levers of value creation that are directly linked to such improvements in financial engineering, operational effectiveness or strategic distinctiveness.

**Financial engineering**

Financial engineering, i.e. the optimisation of capital structure and minimization of after-tax cost of capital of the portfolio company is one of the most widely acknowledged levers applied by buyout associations to create value.

**Optimising the capital structure**

Buyout associations possess intimate knowledge of capital market mechanisms and capitalize on their financial expertise in the buyout (Anders, 1992). They typically assist the
management in negotiating bank loans, bond underwritings, initial public offerings, and subsequent stock sales. They leverage their excellent contacts in the financial community negotiating terms that the portfolio company would not have been able to get on a stand-alone basis (Magowan, 1989; Kaufman et al., 1993). The reduction of the marginal agency costs of debt financing is possible, because buyout associations have long-term relationships with institutional lenders - consequently, the new equity owners have reduced incentives to transfer wealth from lenders (DeAngelo et al., 1984; DeAngelo et al., 1987). Buyout specialists are likely to be repeat players in the LBO debt market; with their reputations as "good" borrowers at stake, lenders are likely to deal with them on easier terms (Frankfurter et al., 1992; Baker et al., 1998; Cotter et al., 2001).

The application of their financial engineering skills helps a company to improve its complex capital structure and to find an optimal mix between debt and equity (Anders, 1992). This of course leads to an increase in debt, hence the common term "leveraged buyout".

Reduction of corporate tax

Corporate tax savings as a consequence of increased leverage have also been identified as important sources of value creation in buyout transactions (Lowenstein, 1985; Bull, 1989; Hayn, 1989; Kaplan, 1989a; Leland, 1989; Singh, 1990; Smith, 1990b; Frankfurter et al., 1992; Long et al., 1993c). The increase in debt makes high tax-deductible interest payments necessary and provides a tax shield with a positive impact on cash flows\(^{10}\) (Kaplan, 1989a; Singh, 1990). Similarly, the step-up in book value of purchased assets and the subsequent application of more accelerated depreciation procedures may have value increasing effects as well (Bull, 1989; Kaplan, 1989a; Smith, 1990b; Baker et al., 1998). In many countries, however, tax reforms have
removed many of these benefits (Kohlberg, 1989; Newbould et al., 1992; Baker et al., 1998) in recent years.

Other researchers argue that the cost of capital is more or less independent of leverage, since the tax advantage of a high level of debt is almost entirely offset by the higher cost of that debt (Long et al., 1993a; Opler et al., 1993; Samdani et al., 2001. Or as (Rappaport, 1990) puts it: "borrowing per se creates no value other than tax benefits. Value comes from the operational efficiencies debt inspires"\textsuperscript{11}.

Financial engineering has direct impact on the bottom line of the portfolio company and thus represents a primary lever of value creation. To a large extent, it is extrinsic to the portfolio company, as expertise and reputation of the equity investors play a major role in the minimization of the cost of capital. The financial structure is largely determined during the acquisition phase, but financial engineering may continue to play a role during the holding period.

While financial engineering was identified early on as a lever to create value in buyout transactions it took longer until buyout associations broadly acknowledged the need to focus on adding value by helping portfolio firms with their operations and strategy (Indahl et al., 1998). As the markets mature and become increasingly competitive buyout associations realise that they need to find ways to add value to their portfolio companies beyond financial engineering (Baker et al., 1998).

\textit{Increasing operational effectiveness}

\textsuperscript{10} The value creating impact of tax shields differs across countries and across time depending on tax regulations.

\textsuperscript{11} This effect will be discussed in more detail in the sections "Increasing operational effectiveness" and "Reducing agency costs".
While financial engineering focuses on capital structure and cost of capital, increasing operational effectiveness has an impact on the left side of the balance sheet, operating margins and cash flow. It is achieved through measures that enhance overall productivity and effectiveness of operations. While the strategic positioning of the company remains unchanged, the configuration of a company's resources, i.e. how the different available resources are put to work, are being readjusted. In this process, the quantities of individual resources may be changed and single resources may be exchanged. A substantial amount of literature has developed that shows that buyout transactions have a positive effect on the operational performance of target companies\textsuperscript{12} (Bull, 1989; Baker \textit{et al.}, 1989; Kaplan, 1989b; Lichetenberg \textit{et al.}, 1990; Muscarella \textit{et al.}, 1990; Singh, 1990; Smith, 1990a; Opler, 1992; Long \textit{et al.}, 1993a, Ofek, 1994; Phan \textit{et al.}, 1995; Smart \textit{et al.}, 1994; Holthausen \textit{et al.}, 1996; Weir \textit{et al.}, 1998; Amess, 2002; Harris \textit{et al.}, 2002).\textsuperscript{13} We can distinguish between measures that increase operational effectiveness due to cost-cutting and margin improvements, reduce capital requirements or the removal of managerial inefficiencies.

\textbf{Cost-cutting and margin improvements}

Buyouts often substantially change the way the operations are organized and managed in the target company, with the goal to reduce cost and improve margins (Muscarella \textit{et al.}, 1990; Wright \textit{et al.}, 2001). After the acquisition the management immediately starts to tighten the control on corporate spending (Kaplan, 1989b; Magowan, 1989; Anders, 1992; Holthausen \textit{et al.}, 1996) and initiates a series of cost reduction programs (Muscarella \textit{et al.}, 1990; Baker, 1992). A

\textsuperscript{12} The motivations of the managers to implement operational changes will be ignored for a moment (they will be discussed as part of the secondary levers) we will focus on the activities and measures that lead to the improvements in operational effectiveness.

\textsuperscript{13} See Palepu, 1990 for an overview on the early literature until 1990.
variety of activities leads to a reduction in production cost and significantly increase plant productivity (Lichetenberg et al., 1990; Muscarella et al., 1990; Harris et al., 2002). In this context, the impact of buyouts on R&D expenses have received particular attention. Findings, however, tend to the contradictory, as a number of researchers e.g., (Hall, 1990; Smith, 1990b; Long et al., 1993b, Long et al., 1993c; Hoskisson et al., 1994) report a reduction of R&D expenses after the buyout. Other studies e.g., (Kohlberg, 1989; Bull, 1989; Lichetenberg et al., 1990) failed to support the corresponding hypothesis (see Zahra et al. (1991) for an overview).

Besides that, the reduction of overheads (e.g., corporate center) plays a key role in achieving higher overall efficiency. Buyout companies typically develop a less bureaucratic structure with decreased corporate overhead cost (Easterwood et al., 1989; Butler, 2001; Samdani et al., 2001).

Reducing capital requirements

In addition to taking out unnecessary costs it is quite common to increase capital productivity and/or reduce capital requirements of the business. One common way to achieve this is to make more efficient use of existing corporate assets (Lowenstein, 1985; Bull, 1989; Baker et al., 1998), i.e., to rationalize corporate operations, for example through an improved management of working capital (Baker et al., 1989; Smith, 1990a; Kester et al., 1995; Samdani et al., 2001). Inventory control and accounts receivable management are tightened and professionalized (Magowan, 1989; Singh, 1990; Long et al., 1993c) This leads to sharply reduced levels of inventory and receivables compared to pre-buyout levels (Easterwood et al., 1989). (Holthausen et al., 1996) found that post-buyout firms have, on average, significantly smaller amounts of working capital than their industry counterparts.
At the same time, the company adopts stricter regimes regarding capital expenditure that cut unsound investment programs and lead to the divestment of unnecessary or underutilized assets (Magowan, 1989; Phan et al., 1995). This leads to a consolidation and reorganization of production facilities and an increase in operational performance and total factor productivity on the one hand and additional cash flow to pay down debt on the other hand (Seth et al., 1993; Kohlberg, 1989).

It is important to keep in mind, however, that all these organizational changes need to be such that they do not negatively affect the company's ability to compete in the market place (Easterwood et al., 1989). It should also be mentioned that the generally increased efficiency and tighter cost control, which has developed in many corporations over the last decade, might mean that the scope for obtaining significant short-term benefits from restructuring is more limited (Wright et al., 1996).

Removing managerial inefficiencies

Buyouts also often lead to improvements in operational effectiveness through the replacement of inefficient management teams (Anders, 1992). Following the logic of the market for corporate control (Manne, 1965), poor performance may be the result of inefficient management teams. Buyouts have been proposed as a vehicle to takeover companies with inefficient management teams for a valuation based on their poor performance and change the management team and thus remove the cause for this type of underperformance (Jensen et al., 1983)\(^\text{14}\). Buyout investors can then benefit from the appreciation in company value due to the performance increase.

\(^{14}\) The case where buyout investors partner with an outside management team to gain control over a company and then replace the previous management team, have been termed “Management Buy-In (MBI)”.\]
Increased operational effectiveness has a direct impact on both profitability and cash flow of the portfolio company. It is typically the result of a combination of intrinsic and extrinsic factors. While some of the decisions to enhance operational effectiveness may have already been embedded in the business plan that was developed during the acquisition base, most of these measures will only take effect during the holding period.

**Increasing strategic distinctiveness**

Buyouts can create value and improve performance beyond the increase of operational efficiency. Often, they lead to a redefinition of key strategic variables such as which markets to be in and with which products to compete and they conduct changes in pricing, product quality, customer service and customer mix as well as on the reorganization of distribution channels. This often goes along with a substantial change in the resource base of the company. Two common approaches to increase strategic distinctiveness that have been observed in buyouts are a refocusing on core activities and the execution of a buy-and-build strategy.

**Corporate refocusing**

Often buyouts lead to a corporate refocusing (Seth et al., 1993), along with an overall reduction of complexity (Phan et al., 1995). Through a reduction of the number and degree of diversity of different activities and the removal of inefficient cross-subsidies between different product lines (Liebeskind et al., 1992; Wiersema et al., 1995), the portfolio company refocuses on its core business. Activities which are peripheral (from a strategic point of view) or not a competitive advantage for the company are often sold to another party that can make better use of it (Muscarella et al., 1990; Hoskisson et al., 1990; Singh, 1990, Singh, 1993; Anders, 1992;
Baker, 1992; Seth et al., 1993; Baker et al., 1998). In general, resource allocation prioritises projects, which are essential to maintaining or enhancing competitive advantage (Easterwood et al., 1989).

It has been argued, however that the times when buyouts could be viewed as solely emphasizing downside efficiencies are over (Wright et al., 2001). A successful exit of a buyout via trade sale or initial public offering often requires a history of strong growth (Butler, 2001). This pushes companies to either pursue internal growth strategies and to actively strive for promising innovations (Markides, 1997; Markides, 1998; Wright et al., 2001), or to seek external growth through acquisitions of new lines of business for an expansion of business scope in areas where distinctive competencies and resources are significant compared to the competition (Easterwood et al., 1989; Liebeskind et al., 1992; Seth et al., 1993; Wiersema et al., 1995).

Buy and build strategies

Some buyout transactions are intended from the beginning to accomplish a so-called "buy and build" strategy. In these cases buyout associations undertake an initial buyout investment in a fragmented and/or sub-scale market to build a nucleus (Samdani et al., 2001). This nucleus then gets provided with cash, leverage and know how to undertake a couple of subsequent acquisitions that lead to a consolidation in that market segment (Seth et al., 1993; Baker et al., 1994; Allen et al., 1999; Wright et al., 2001). Such a strategy aims at establishing a dominant market position and to capture economies of scale.

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15 We need to distinguish between "asset stripping" strategies, which have been treated as a case of financial arbitrage through an optimization of corporate scope, and the reduction of scope of activities to increase strategic distinctiveness. Asset stripping occurs on the corporate level and concerns the sale of entire business units, whereas the reduction of scope of activities happens on the business level when, for example, the reduction of a certain component gets outsourced and the corresponding facility shut down or divested.
Improved strategic distinctiveness also ensures a clear impact on the financial performance of the portfolio company and qualifies therefore as value creation. It is often achieved through an interaction between buyout investors and portfolio company and is thus partly intrinsic and partly extrinsic. While the overall strategic plan may be set during the acquisition phase already, its implementation happens during the holding period.

The previous passage has made it clear, that buyouts create value through a variety of different levers. The important question remains, however, why are companies able to pull these value creation levers in a buyout context and have not been able to do so before the buyout. The following description of secondary levers of buyouts value creation addresses this point and highlights a number of reasons why in many cases the buyout eventuates itself or the active equity investors facilitate or enhance the application of our primary value creation levers.

**Levers of value creation: Secondary levers**

We have to remember that secondary levers of value creation do not have a direct impact on financial performance, but influence value creation through primary levers. We can distinguish the secondary levers into one category related to the reduction of agency costs and a second category that is linked to a so-called parenting advantage.

**Reducing agency costs**

The most prominent and exhaustively described value creation lever in buyouts is the reduction of agency costs (Wright et al., 2001). It should be kept in mind that a reduction of agency cost, as a secondary lever of value creation, has no direct effect to the bottom line, as even the mere absence of agency costs does not guarantee business success (Bull, 1989). But the
mechanisms leading to reduction of the agency conflict can support the three previously described primary levers.

The magnitude of the agency problem in an organization depends on the degree of discretion in managerial decisions, the degree of misalignment in incentives between managers and owners and the degree to which a deviation from shareholder-wealth-maximizing decisions can be observed and sanctioned (Berle et al., 1932; Manne, 1962; Manne, 1966; Ross, 1973; Fama, 1980; Jensen et al., 1976, Fama et al., 1983; Jensen, 1986, Jensen, 1989b). Research has shown that agency conflicts are highly relevant in the buyout context (Opler et al., 1993). The changes in organizational structure and ownership that become possible in a buyout transaction allow one to take advantage of agency cost reduction mechanisms and subsequently lead to an improved firm's operating performance (Kaplan, 1989b; Lehn et al., 1989; Smith, 1990a; Thompson et al., 1991). Buyouts potentially influence all three factors and can thus reduce the agency problem significantly.

Reducing agency costs of free cash flow

First of all, the increased level of debt we find in many buyouts (so-called "leveraged buyouts") plays a crucial role in the limitation of managerial discretion in buyouts. (Jensen, 1986; Jensen, 1989a; Jensen, 1989b) emphasized that debt used to finance the buyout helps to limit the waste of free cash flow by compelling managers to service debt payments rather than spend it inefficiently within the firm. It reduces managers' discretion over corporate expenditures16 (Grossman et al., 1982 (1986); Stulz et al., 1990; Smith, 1990a) and limits possible non-value

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16 A number of empirical studies have shown that expenditures decline following a leveraged buyout Bull, 1989; Kaplan, 1989b; Kitching, 1989; Muscarella et al., 1990; Smith, 1990a
maximizing behaviour (Newbould et al., 1992). The debt burden forces managers to efficiently run the company to avoid default (Lowenstein, 1985; Jensen, 1986; Allen et al., 1999; Cotter et al., 2001).

Bankruptcy is costly for managers, as they lose the benefits of control and reputation (Grossman et al., 1982 (1986)). Consequently, high leverage and increased default risk can create an incentive for managers to work harder, consume fewer perquisites and make better investment decisions, as such behaviour reduces the probability of bankruptcy.

Another positive effect of debt is the additional outsourced governance. Financial lenders have strong incentives to monitor the managements' actions and to make sure that the company is able to fulfil its duties. The debt covenants and repayment requirements serve as a sort of operating budget for the buyout company (Baker et al., 1994) and provide clear constraints for the management (Baker et al., 1989; Lichetenberg et al., 1990).

But it should be mentioned that high leverage in finance can have downsides for a company as well. Unforeseen shocks (e.g., increase in interest rates, shortfall in demand) can result in a dramatic corporate failure (Singh, 1990; Rappaport, 1990; Singh, 1993). Therefore the ability of the buyout investors to quickly intervene and provide support in such situations can be of superior importance. Furthermore, the increased financial leverage can make a firm short-term oriented because of its vulnerability to financial distress, leading to a decline in competitiveness (Palepu, 1990; Gifford, 2001. Rappaport, 1990) argued that modern competition "requires the financial flexibility of a public company not burdened with extraordinary debt". In addition, leverage could affect project selection by managers due to managerial risk aversion:

17 Thompson et al., 1992 argued that institutions supplying debt and loan finance have a comparative advantage in monitoring a company because of their long experience in that matter.
18 This support is a secondary lever of value creation that will be discussed in a following section.
high leverage could cause risk-averse managers to alter their investment decisions in such way as to decrease the risk of the assets of the firm in order to reduce the likelihood of default (Holthausen et al., 1996).  

**Improving incentive alignment**

Buyouts also increase the incentive alignment between shareholders and managers through a combination of a "carrot" and a "stick" mechanism (Jensen, 1986, Jensen, 1989b; Cotter et al., 2001). Buyout associations provide incentives (the "carrot") in order to align the interests of all parties involved and to reduce the agency conflict after the buyout (DeAngelo et al., 1987; Jensen, 1989b; Bull, 1989; Lichetenberg et al., 1990; Frankfurter et al., 1992). Managers are encouraged (if not forced) to increase their share in equity ownership in the company to a significant level (Muscarella et al., 1990; Baker et al., 1994). It is expected that this increase in the equity stake of the management directly increases the personal costs of inefficiency (Smith, 1990b) and reduces their incentive to shirk (Jensen et al., 1976; DeAngelo et al., 1984; Hite et al., 1989; Smith, 1990a; Weir et al., 1998).

Furthermore, the change in status, from manager to co-owner could increase financial performance because it gives managers a positive incentive to look for efficiency gains and smart strategic moves (Phan et al., 1995; Weir et al., 1998). Their equity participation gives them a greater stake in any value-increasing actions that are taken (e.g., (Jensen et al., 1976) and leads therefore to better operating and investment decisions (DeAngelo et al., 1987; Easterwood et al.,

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19 It has been argued that an emphasis on financial controls induces managerial risk aversion Lei et al., 1995 for an overview) as well.

20 Managers get usually offered a substantial stake in the equity of the company to favourable conditions ("sweet equity"). But due to the high amount of the total investment compared to their personal net worth, managers usually have to take big financial risks to participate in the buyout ("pain equity") Kitching, 1989; Thompson et al., 1992; Baker et al., 1998; Beaver, 2001; Samdani et al., 2001
Another motivational side effect of the construct is that management finds themselves with a substantial undiversifiable equity investment and their specific human capital locked into the company. This double lock-in (“the stick”) should give them a strong motivation to safeguard their position (Thompson et al., 1992).

On the other hand increased managerial ownership in equity can result in a decrease in financial performance due to managerial risk aversion and the potential under-diversification of the managers' wealth (Fama et al., 1985; Morck et al., 1988; Holthausen et al., 1996; Demsetz, 1983 and Fama et al., 1983) argue that if managerial equity ownership is concentrated, the manager may have effective control over the organization and disciplining mechanisms such as the market for corporate control and managerial labour markets may be rendered ineffective, that could result in a decline in performance as well. (Holthausen et al., 1996).

In addition to an increased equity ownership of the top management, buyout associations increase the sensitivity of pay-to-performance for a large number of employees in the company (Jensen, 1989a, Jensen, 1989b; Anders, 1992; Fox et al., 1992). Motivational systems get installed and employee contracts get changed in a way that motivates to achieve key tasks and include changes in the way employees get evaluated and compensated (Easterwood et al., 1989; Baker et al., 1989; Muscarella et al., 1990). These additional incentives are not necessarily restricted to those at the peak tier of authority. Buyouts may introduce employee share ownership plans or other shareholdings schemes and sometimes involve participation programmes (Thompson et al., 1992).

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21 The equity owned by management in the LBO companies is generally illiquid. However, because of the requirement that the LBO association liquidate the limited partnership within a fairly short time period (10 years or less) there is a guarantee that the company will be valued, in a third-party transaction, at some point in the relatively near future. This guarantee of future liquidity, and of an object and unbiased valuation event, is crucial to the incentives provided by management equity ownership Baker et al., 1994
Support for the view that incentives help to reduce managerial opportunism comes from (Wright et al., 1994) who empirically showed that incentives were negatively related to MBO failure.

Improving monitoring and controlling

Finally, buyouts change the governance structure in a way that increases the possibilities to reduce the agency conflict through monitoring and controlling of the company management (Hite et al., 1989; Singh, 1990). The greater concentration of equity in the hands of active investors encourages closer monitoring and leads to a more active representation in the board of directors (DeAngelo et al., 1984; Jensen, 1989a, Jensen, 1989b; Smith, 1990a). The involvement in the monitoring of management as members of the board offers the chance to get direct access to confidential company information. This eases the oversight over ongoing operations as well as the evaluation of longer-term strategies. Portfolio companies' management gets continuously evaluated through an ongoing process of control (Palepu, 1990; Anders, 1992; Cotter et al., 2001).

Buyout specialists are professional active investors that are likely to have a comparative advantage over third party equity investors in monitoring managers of post-buyout organization (DeAngelo et al., 1984; Kohlberg, 1989; Jensen, 1989a; Frankfurter et al., 1992; Cotter et al., 2001). Their involvement in a large number of buyout investments improves their skills in monitoring.

The reduction of the agency conflict through these mechanisms is a critical determinant of several of the factors previously discussed as primary levers value creation. Agency problems create inefficiencies, especially regarding improved operational effectiveness and strategic
distinctiveness. The improved agency relationship after the buyout removes these inefficiencies and motivates management to pull the necessary levers value creation to maximize the value of the company. This includes taking even unpopular and difficult decisions like cutting jobs and disposing businesses as well (Butler, 2001). The different factors that contribute to a reduction of agency costs are all secondary levers of value generation. They are largely predetermined during the acquisition phase, even though the actual value creation effect only happens during the holding period. While the effect of increased leverage is independent of specific characteristics of the equity investors and thus intrinsic to the portfolio company, monitoring and controlling as well as the interest alignment depend on specific capabilities of the equity investors.

**Parenting effect**

The last lever we describe is the so-called parenting advantage. Similar to the effect of being part of a certain corporation for a specific business unit that has been identified in research on conglomerates (Goold *et al.*, 1994), buyout associations can have an important impact on the value creation in the various buyout businesses of their "family". Even though buyout associations differ in the degree to which they are involved in the management of the portfolio company, they support the value creation in their portfolio companies in various ways.

**Restoring entrepreneurial spirit**

In many cases, companies that are acquired in buyouts suffer from a lack of entrepreneurial spirit. The reasons for this are manifold and include cases where non-core units of large corporations do not receive the necessary attention or resources from corporate headquarters to pursue innovative strategies or where risk-aversion led to an unfavourable climate for entrepreneurial activities. Buyout associations can contribute to the restoration of an
entrepreneurial climate, by giving the management of portfolio companies' sufficient freedom to
develop and realize innovative ideas. The new institutional structure and changed governance
and interaction modes make managers of post-buyout companies feel released from corporate
bureaucracy and of central importance (Lowenstein, 1985; Jensen, 1989a; Hoskisson et al.,
1990; Butler, 2001; Wright et al., 2001), as many buyout associations reduce their interference
with day-to-day operational issues to a minimum, as long as financial targets are met. Portfolio
company managers feel and act as entrepreneurs in their organizations, freed from the constraints
of a corporate centre and encouraged to make independent decisions (Bull, 1989; Jensen, 1989a;
Singh, 1990; Houlden, 1990; Kester et al., 1995; Weir, 1996; Bruining et al., 2002). Researchers
describe this effect as "LBO fever" or "adrenalin": energized and highly motivated management
teams are willing to take nearly any action to make their buyout a success (Houlden, 1990;
Beaver, 2001; Samdani et al., 2001).

Advising and enabling

Another positive effect of belonging to a particular buyout association as the "parent
company" can come from the constructive interaction between portfolio company managers and
their counterparts in the buyout associations, which is often facilitated through direct and
unbureaucratic communication channels (Kester et al., 1995). While the investment managers in
the buyout associations typically stay free of the day-to-day operations, they are still much closer
to operations and management than conglomerate headquarters or the board of directors in
traditional organizations (Bull, 1989; Hite et al., 1989; Anders, 1992).

22 Wright et al., 2001 highlighted that managers of pre-buyout organizations are discouraged if their divisions provided profitable
and innovative investment opportunities but were limited in their discretion because of the fact that the division was not
regarded central to the parent organization Weir, 1996; Beaver, 2001

23 The motivational effect of incentive systems that has been discussed in the section on agency cost certainly also contributes to
this phenomenon.
At the same time, buyout associations are known for their ability to produce "stretch budgets" (Anders, 1992; Baker et al., 1994; Butler, 2001) and to, in general, raise the standards for management performance. By increasing the minimum level of acceptable performance managers are forced to work harder after the buyout or they risk losing their jobs (Baker et al., 1989, Magowan, 1989). They also spend a serious amount of time on selecting the top management team after the buyout24 and they usually do not hesitate to replace it if corporate performance should falter (Anders, 1992). Overall, target setting is much more aspirational in buyouts. It is not surprising that they expect, for example, the business to double EBITDA in five years time (Butler, 2001).

Furthermore, buyout sponsors understand their role vis-à-vis the portfolio company management as active advisors and enablers. Usually, the lead representative of the buyout association serves as the top management's sounding board on both day-to-day operations and long-term decisions and provides additional perspectives on, and knowledge of, strategy, markets and external conditions (DeAngelo et al., 1987; Sapienza et al., 1989; Houlden, 1990; Kester et al., 1995; Baker et al., 1989; Bruining et al., 2002). The buyout specialists bring to the new unit additional management expertise and industry experience acquired in previous transactions in which they participated, which constitutes a case of knowledge transfer from the new owners to the target company (Baker et al., 1998). This "cross-utilization" of managerial talent can represent a valuable and not otherwise readily available resource to the buyout company. (Hite et al., 1989). Another source of value added through the buyout association comes from their network of contacts in various industries and especially in the financial and consulting markets that can be exploited to the benefit of the buyout transaction (Kaufman et al., 1993; Baker et al.,

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24 This team can be composed of previous managers of the buyout company or of outside managers.
1998; Bruining *et al.*, 2002). Be it to find a business partner, to recruit a new manager for the portfolio company or to identify potential targets for the buy-and-build strategy, contacts of the buyout association may be an important success factor for the portfolio company.

The parenting effect represents a secondary lever of value creation. Advising and enabling are inherently linked to characteristics of the equity investors and thus extrinsic in nature. To some extent, an entrepreneurial orientation may exist in the portfolio company *per se*, that just has to be “freed” by the equity investors, so that this lever can be partially intrinsic and partially extrinsic. The parenting effect can be active throughout all three phases of the buyout.
SUMMARY AND CONCLUSIONS

This study provides a detailed and comprehensive synopsis of the literature on buyout value generation of the last twenty years, pulling together arguments from a variety of different academic areas. The application of our new conceptual framework makes it possible to classify various levers of buyout value generation according to three dimensions. We identify seventeen distinctly different levers of value generation, discuss the way they influence returns to the buyout investors and outline key arguments of the academic discourse of these levers whenever beneficial for our understanding. For the sake of completeness, new or less prominent levers of value generation have been added and put into context (see Table 1).

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<th>Dimensions of value generation*</th>
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<td>F-2.</td>
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* X= lever can be categorized accordingly; (X)= lever can be categorized only with limitations

Table 1: Value Generation in Buyouts
Our three-dimensional framework offers a structure to the disperse field and views the topic from various different angles. This framework helps us to structure the complexity of the buyout value generation process and increases our understanding of the interconnectedness of the different levers, their importance during the different phases of the buyout and the degree to which they are inherently linked to the specific characteristics of the sponsoring buyout investor. This structured view of the buyout value generation process illustrates that all three phases of the buyout contribute significantly to value generation and shows that buyouts value generation is not entirely "front loaded", as suggested by Baker et al., (1994). At the same time, the importance of specific characteristics of the equity investors for buyout value generation is striking. The large number of value generation levers that qualify as (at least partially) extrinsic in that they depend on characteristics of the equity investors, suggests that it really makes a difference who undertakes the buyout. For investment managers in buyout associations, who compete with increasing intensity for suitable buyout targets, this has important implications. Buyout associations need to carefully analyze through which levers they can add value in the process, and specifically through which levers they may have an edge over competing bidders for a given company. This suggests that a strategic positioning of buyout associations, through which they consciously explore and exploit their competitive advantage in buyout value generation is becoming increasingly relevant.

The appendix provides a comprehensive overview of the studies on levers of buyout value generation in the previous literature and specifies in which area the different studies contribute to the theoretical discussion, provide anecdotal evidence and conduct empirical tests of the different phenomena.
Our review of the literature on buyout value generation reveals that much research has been conducted in the late 80s and the early 90s. If we consider the fact that this period was characterized by highly leveraged going-private transactions (mainly in the US), it is not surprising that most of the empirical testing is based on this type of case. While these studies have been helpful to understand the basic logic of buyout transactions, it is important to recognize that the development in recent years and the international spread of buyout activity has led to a great variety of different facets of buyouts. These may differ substantially from early transactions in their strategic logic and value generation mechanisms, so that earlier studies may be less suitable to explain them.

Furthermore the synopsis (see Appendix) shows that some topics have received more attention while others have been somewhat neglected. One possible reason for this may lie in the difficulties to operationalise and manage some of the "softer" levers of value generation, such as the parenting effect.

Overall, a lack of empirical evidence for the different value generation levers becomes obvious from our overview. Much of the existing empirical evidence is rather anecdotal in nature and cannot be taken as conclusive support for the actual relevance of these levers. In addition, many levers are still entirely statistically untested and much of the quantitative empirical work we have seen is limited in its power by small sample sizes and an operationalisation of key constructs that has been subject to criticism (Fox et al., 1992). In the light of the complex process through which various levers interact to generate value in buyouts, the importance to expand the scope of empirical studies to models that consider multiple levers simultaneously in a multivariate analysis becomes obvious. Only through such work, will it be possible to draw any kind of inference regarding the significance and relative magnitude of the different levers.
This lack of empirical work may be partially due to difficulties to get access to data in an industry that calls itself “private equity”. Nevertheless, we consider it highly worthwhile to take the long way and compose a data set of sufficient breadth and depth that makes it possible to tests more comprehensive models of buyout value generation. We are convinced that our synopsis and framework provide a good starting point and frame for this kind of work. Such work will not only increase our understanding of buyouts, as a phenomenon of great economic relevance. Research on buyouts can also be used to focus on effects of great relevance in a broader strategic management context that can be observed in the buyout setting.
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APPENDIX: Studies on value generation* in buyouts along levers and type of contribution

<table>
<thead>
<tr>
<th>Lever</th>
<th>Theoretical Discussion**</th>
<th>Anecdotal Evidence****</th>
<th>Empirical Testing****</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-1. … based on changes in market valuation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A-2. … based on private information about the portfolio company</td>
<td>Anders 1992: 82; Fox &amp; Marcus 1992: 68</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A-3. … through superior dealmaking capabilities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A-4. … through an optimization of corporate scope</td>
<td></td>
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<tr>
<td>B. Financial Engineering</td>
<td>DeAngelo et al. 1984: 373; DeAngelo &amp; DeAngelo 1987: 43; Magowan 1989: 15; Anders 1992: 85;</td>
<td>Magowan 1989 (s); Anders 1992: 86 (s)</td>
<td></td>
</tr>
</tbody>
</table>
- **B-2. Reducing corporate tax**

- **C. Increasing operational effectiveness**
  - **C-0. Increased efficiency after buyouts**
  - Baker & Wruck 1989 (s); Magowan 1989 (s)

- **C-1. Cost-cutting and margin improvements**

  - Magowan 1989 (s); Baker 1992 (s); Hall 1990: 193**** (n); Long &
| E-1. Reducing agency costs of free cash flow | Baker & Wruck 1989 (s) |
| E-2. Improving incentive alignment | Baker & Wruck 1989 (s); Anders 1992: 80-81 (s) |
|  | Thompson & Wright 1991 (s) |
|  | Lehn & Poulsen 1989 (s) |
|  | Kitching 1989 (s); Frankfurter & Gunay 1992 (s); Wright et al. 1994 (s); Phan & Hill 1995 (s) |
| D-2. Advising and enabling | Bruining & Wright 2002: 165  
DeAngelo & DeAngelo 1987: 43;  
Baker & Wruck 1989: 176+183; Hite  
& Vetsuybens 1989: 956; Houlden  
1990: 74; Magowan 1989: 14;  
Sapienza & Timmons 1989: 77;  
Kaufman & Englander 1993: 75;  
Baker & Montgomery 1994: 22;  
Kester & Luehrman 1995: 123; Baker  
& Smith 1998: 100+171+174; Butler  
2001: 146; Bruining & Wright 2002:  
165 | Baker & Wruck 1989: 176+183 (s);  
Anders 1992: 84 (s) |

* This Appendix lists only publications with a clear buyout focus.  
** Studies in order of publication date and in alphabetical order within a year. Page follow year of publication.  
*** $s =$ supported; $n =$ not supported  
(This reflects only the outcome of the empirical testing of the studies has not been reviewed qualitatively by the authors.)  
**** Studies that focus explicitly on the development of R&D expenses after a buyout.