A Framework for Examining the Heterogeneous Opportunities

of Value Creation in Private Equity Buyouts

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Acknowledgements: Thanks to Douglas Cumming and an anonymous reviewer for comments on an earlier version

Abstract

PE firms and buyouts have emerged as a field of significant interest for academic research and attracted the increasing attention of policy makers, public opinion and popular press. In particular, there is a strong debate on how private equity firms create value in buyout investments. Notwithstanding this widespread interest in value creation in private equity, there is a lack of research offering an overall view of the various mechanisms by which value can be created in buyout investments. We contribute to shed new light on this issue by reviewing the body of research on value creation and by proposing an overall framework for mapping the heterogeneous opportunities to create value.

# Introduction: Towards an Extended Taxonomy

The modern private equity and buyout market developed from the mid-1970s with the transfer of ownership of listed corporations, divisions of large groups and family firms to newly created independent privately-owned entities funded by substantial debt and small amounts of equity provided by specialist investors in which management typically obtained significant equity stakes (Coyne and Wright, 1982; Kaufmann and Englender, 1993; Wright et al., 2000).

This transfer of ownership facilitated by high levels of leverage gave rise to the term leveraged buyouts (LBO) to describe the market. The levered investment takes the name of management buyout (MBO) when the transaction involves the existing managers and management buy-in (MBI) when it involves a new management team. Following controversies in the 1980s about the adverse effects of some highly leveraged deals making the LBO term toxic, as well as some evolution in the types of deals being conducted, the market was relabeled the private equity and buyout market (Gilligan and Wright, 2014).

The fundamental drivers of value generation[[1]](#footnote-1) emerged with the first wave of buyouts in the mid-1970s to the 1980s. In broad terms, there are three principle mechanisms that add value: reductions of the opportunity cost of capital, increasing operating cash flows, and accelerating financing payments. However, these mechanisms provide little insight into how these increases in value can be achieved. Accordingly, studies have explored more fine-grained drivers of value creation.

The various techniques for acquiring companies with substantial amounts of debt financing and benefitting from resulting tax shield became known as financial engineering. A particular form of arbitrage crucial in the early 1980s was to take advantage of the conglomerate discount. This term denoted the discount by which a public multi–business corporation was valued at a lower multiple than the combined value of its assets. By divesting assets and business units, investors could remove the discount and benefit from the value appreciation.

Another early driver for improving buyout targets became known as corporate governance and involved the active involvement of investors, initially known as LBO associations and subsequently private equity firms. Typically, private equity firms were general partners (GPs) in the closed end funds they raised from institutional investors (limited partners, LPs). This stream of research highlighted that corporate governance can be used to reduce the costs associated with the agency problem (Jensen and Meckling, 1976; Lowenstein, 1985).

The value improvement potential was fuelled by the intent to mitigate the agency conflict through incentive realignment and by disposing accumulated cash flows (Jensen, 1989b; Kaplan, 1989a, 1989b). For instance, since buyouts are typically financed with substantial amounts of debt, they can function as a dividend substitute to dispose of the excess free cash flow (Jensen, 1989a). A central and related driver of the buyouts was the notion that the alleged lethargy that plagued the public corporations in the 1970s, was due to a fundamental disconnect between ownership and management. The agency conflict appeared to be particularly prevalent in mature industries with low to moderate growth prospects. Since finance providers rarely have direct access to internal information of the firm, they thereby incur additional risk. For instance, when the incumbent management invest resources on projects with significantly higher risk than deemed acceptable by the investor. More broadly the moral hazard scenario can be expressed as a bet, where the downside risk has been transferred to the financial provider, while the upside remains with the actor making the bet.

During a management buy-in the management team raise the funds to carry-out an acquisition. Typically, a combination of buyout fund capital and bank debt is used to acquire the firm. After the acquisition, the shares of the firm are owned by the new management and the buyout fund. The continuous cash-flows generated by the firm are used to serve debt amortizations. The new management and fund investors are remunerated during an exit.

By the late 1980s the evidence was mounting that buyouts are associated with significant operating and productivity improvements (e.g. Baker and Wruck, 1989; Bull, 1989; Kaplan, 1989) and the techniques for achieving improvements became known as operational engineering. From the 1990s strategic redirection emerged as a key driver of the value creation through the alternatives focusing on the core and buy and build strategies, as well as organic entrepreneurial and innovative activities (Wright et al., 1992; Zahra, 1995; Meuleman et al., 2009; Ughetto, 2010; Lerner et al., 2011; Amess, et al., 2015).

There are several reviews of buyout performance (e.g. Cumming, Siegel, and Wright, 2007; Wright, Gilligan and Amess, 2009), leverage buyouts (Renneboog and Vansteenkiste 2017), the early development of the buyout literature (Berg and Gottschalg, 2005) and of employee-related aspects (Wood and Wright, 2009). However, we lack a structured framework to synthesize the value creation drivers, several of which have been identified only recently. Moreover, new value creation drivers have emerged recently in fields other than finance but have not been included in existing frameworks.

In an effort to define the state of the art of this literature, we specifically review the body of papers on value creation in buyout investments and propose an overall framework for mapping the heterogeneous opportunities to create value. Papers included in this review were searched by using the following keywords: Buyouts, Private Equity, Value Creation, Portfolio Firms, LBO, MBO, MBI. As papers on private equity have appeared in a wide range of journals across a number of fields including finance, strategy, entrepreneurship, economics, etc. we adopted a wide search rather than restricting it to a small number of journals in one or other field. As for the time frame, we do not impose any constraint in our search. Afterwards, each of the papers was subject to an in-depth reading and discussion process to determine whether or not it dealt with value creation in buyout investments.

Based on our wide-ranging literature review, we identify seven distinct value creation drivers: the financial, operational, strategic, governance, cultural, commercial and institutional drivers. The identification of these drivers allows us to capture and systematize the findings of all fields of research, even those that have not been included in existing frameworks. The findings of each paper are first assigned to one of the seven drivers and then to one of the sub-drivers, which are narrower classifications containing the findings of papers related one another. Overall, we identify 32 sub-drivers divided across the different drivers. Figure 1 provides an overview of all drivers and sub-drivers. Note that there are potentially overlaps between subdrivers, which we also discuss below.

Figure I. Value creation drivers and sub-drivers

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| --- | --- | --- |
| **1. FINANCIAL DRIVERS** | **4. GOVERNANCE DRIVERS** | **6. COMMERCIAL DRIVERS** |
| 1. Financial Expertise and Contact Networks | 1. The GP Effect: Experience and Expertise Matters | 1. Proprietary Deal Flow |
| 1. Debt Market Cycles: Mispricing and Overheating | 1. Reducing Agency Costs: Incentivization and Interest Realignment | 1. Deal Making Expertise |
| 1. Alleviating Capital Market Constraints | 1. Restructuring the Board of Directors | 1. Target Firm Identification and Investment Criteria |
| 1. The Effects of High-Leverage: Inflating Gains, Inducing Efforts | 1. Reinforcing the Management Team | 1. Uncovering the Business Potential |
| 1. Capital Structure Optimization in Buyouts |  | 1. Detecting Nascent Market Trends: Multiple Expansion |
|  |  | 1. Timing the Business Cycles |
|  |  | 1. The Entry Transaction: Firm Valuation Criteria |
|  |  | 1. Divesting the Firm: The Mode of Exit |
| **2. OPERATIONAL DRIVERS** | **5. CULTURAL DRIVERS** | **7. INSTITUTIONAL DRIVERS** |
| 1. Functional Experience and Operational Expertise | 1. The Parenting Advantage: Monitoring and Mentoring | 1. Mitigated Legislative and Regulatory Constraints |
| 1. Cost Structure Improvements | 1. The Value of Corporate Culture: A Revived Entrepreneurial Spirit | 1. The Corporate Tax Shield: Debt and Taxes |
| 1. Capital Management and Asset Utilization | 1. Performance Management: Stretch Budgets, Ambitious Goals | 1. Carried Interest and Capital Income |
|  | 1. Revising the Firm KPIs: Novel Yardsticks |  |
| **3. STRATEGIC DRIVERS** | 1. High-Tempo and Inchoate Change |  |
| 1. Focusing on the Core: Complexity Reduction | 1. The Holding Period Time Horizon |  |
| 1. Focusing on Consolidation: Buy and Build Strategies |  |  |
| 1. Focusing on Growth: Market Expansion |  |  |

# Financial Drivers

The financial innovations of the early 1980s were crucial to the growth of LBOs and MBOs, which functioned as market catalysts for corporate restructuring (Renneboog, Simons, and Wright, 2007). With the emergence of new sources of finance, private equity firms could acquire companies using massive amounts of debt. This debt in turn could be used to optimize the capital structure of the portfolio company in order to take full advantage of the resulting tax shield. The application of the financial innovations and associated tools and methods become known as financial engineering (Lieber, 2004).

By the capital structure of the firm, we often refer to the combination of debt and equity by which an operating firm is financed. The most common forms of debt in the buyout context are subordinate and senior debt, vendor notes, bridge loans, and mezzanine debt. Equity is often decomposed into two classes, i.e. the common and preferred shares of the firm.

## Financial Expertise and Contact Networks

At the core of the leveraged buyout is the sophisticated use of debt to finance the acquisition. In fact, Zarutskie (2010) finds evidence that private equity buyout fund teams with more experience in finance outperform funds teams that lack it. One reason is that due to the reputation as trustworthy lenders, private equity firms receive narrower bank loan spreads and access to more debt, and at a lower cost from institutional loan markets. In this respect, Ivashina and Kovner (2011) find that the banking advantages to PE firms from repeated interactions and the cross-selling service potential translates into a 4% increase in equity return for buyout firms.

## Debt Market Cycles: Mispricing vs. Overheating

PE firms attempt to take advantage of market mispricing between debt and equity markets by financing with public equity issues during periods of low market returns and debt issues during periods of high returns (Baker, Greenwood, and Wurgler, 2003). Yet, timing liquidity markets is a double edged sword. Buyout funds might accelerate their investment flows and the quantity of leverage when credit conditions are loosened, which increases competition and raises price levels on private equity markets, which in turn cause average returns to deteriorate. For instance, Axelson, Jenkinson, Strömberg, and Weisbach (2013) find that highly leveraged deals were consistently associated with lower fund level returns for investors. The reason is that acquirers tend to overpay the target when access to credit is easier, therefore lowering their returns.

## Alleviating Capital Market Constraints

A mechanism for value creation that has received surprisingly little attention by academics is that private equity firms can function as a market substitute for weak capital markets by enabling capital allocation for companies with growth potential. There is evidence that private equity has alleviated capital market constraints. Boucly, Sraer, and Thesmar (2011) find that, in the three years following a leverage buyout, target firms become more profitable, grow much faster and increase capital expenditures. This suggests that private equity create value by relaxing credit constraints, allowing the target firm to take advantage of hitherto unexploited growth opportunities. Further evidence also shows that the reduction in capital constraints involved in buyouts also contributes to an increase in innovative activity (Amess, Stiebale and Wright, 2015; Ughetto, 2016).

## The effects of high-leverage: inflating gains, inducing effort

The principal function of increased leverage is to permit the private equity firm to acquire a larger buyout target firm. When an investment generates sufficient levels of stable cash flows, there is support for the notion that increased leverage can be a source of value generation. A study of buyouts in the U.K. finds that, controlling for market return adjusted for a portfolio with the same systematic risk as the buyout, leverage significantly inflates raw equity returns (Valkama, Maula, Nikoskelainen, and Wright, 2013).

A secondary, indirect effect of high levels of debt is that this can induce management to behave in ways that benefit investors by mitigating agency costs (Jensen, 1986). The reasoning is that high levels of debt expose management to the personal costs of bankruptcy, which forces the managers to efficiently run the company to avoid default (Cotter and Peck, 2001).

## Capital Structure Optimization in Buyouts

Capital structure refers to the mix of debt and equity that finances the operative firm in the short and long term. The optimal capital structure is, in simple terms, one that strikes a balance between the debt-to-equity ratio while minimizing the cost of capital. While debt tends to minimize the cost of capital because of tax deductibility, it increases the risk of the firm at the same time. The main disadvantages with increased levels of debt is the increased exposure to financial distress due to market shocks and sudden shortfalls in demand (Palepu, 1990).

However, while the risk for insolvency increases with higher debt, private equity firms tend to fare well by selecting firms for investment that have stronger and more stable cash flows than their sector. Consequently, there is little significant difference in failure rates of buyouts relative to comparable firms that have not experienced a buyout (though this effect is particularly the case for MBOs, but not for MBIs) (Wilson and Wright, 2013).

Capital structure optimization in buyouts has been achieved also due to the diffusion from the 2000s of syndicated loans, which now account for a majority of the buyouts of large public firm in the U.S. and Europe. In syndicated loans, several commercial or investment banks pool together their resources to facilitate the deal financing. Another innovation that is especially common in the U.S. is the development towards all-bullet loan structures, i.e. an instrument whereby the entire principal of the loan, including the interest, is due at the end of the loan term. Likewise, an increasingly used financial instrument is strip financing (or unitranche), whereby the returns to finance providers are derived from multiple tranches of the capital structure, i.e. subordinated debt, preferred stock, and common stock (Chapman & Klein, 2011). The purpose is to foster greater goal congruence among investors and lenders (Chapman & Klein, 2011), which alleviates agency costs by risk/reward sharing.

A method for obtaining more efficient capital structures and lowering the cost of finance is the conversion of traditional assets into new sources of financing, especially when a substantial amount of capital is tied up in fixed assets and non-cash, current assets. Additional capital can be raised by the securitization of assets into asset-backed securities (ABS) and collateralized loan obligations (CLO). In an ABS, the capital is secured by the cash flows obtained from a specified pool of underlying assets comprised of the company’s receivables, e.g. credit card receivables, car loans, asset leases, and royalty payments. The advantage of the asset conversion is that an ABS is generally set at a lower interest rate compared to traditional bank loans (Mishkin and Eakins, 2011). Sale and leasebacks can also free up substantial amounts of capital as expensive machinery and corporate real estate is sold to banks and leased back.

# Operational Drivers

Value can be created within buyouts through operating and productivity improvements. Studies using firm (Amess, 2003) as well as plant level data (Lichtenberg and Siegel, 1990; Harris, Siegel, and Wright, 2005) show that productivity improves after the buyout. Productivity improvements are reached by readjusting how the company’s resources are put to work, while leaving unchanged the strategic positioning of the company.

## Functional Experience and Operational Expertise

Several researchers have suggested the industry experience and managerial expertise in the private equity firm constitute a knowledge transfer to the portfolio firm. Operating gains and improved profitability are significantly associated with PE firms’ sector-specific expertise and the geographic proximity between lead investors and portfolio companies (Cressy, Munari, and Malipiero, 2007; Nikoskelainen and Wright, 2007; Scellato and Ughetto, 2013; Bernstein and Sheen, 2016). Schmidt, Nowak, and Knigge (2004) found that the experience and management skills of the individual GP significantly affects portfolio fund performance. More recently, Acharya et al. (2013) report that GPs with backgrounds in finance or accounting generated superior performance when the firm strategy was based on external growth (M&A), while GPs with an operational or consulting background achieved positive abnormal returns when pursuing an organic growth strategy. The increased importance of operational improvements has resulted in private equity firms hiring executives with industry experience (Matthews et al., 2009).

As the market has evolved and primary deals become harder to find, there has been a substantial growth in secondary buyouts, where initial investors and sometimes management exit and a new set of private equity investors acquire the firm. Evidence suggests that there is something of a change in expertise between the primary and secondary buyout as new strategies are needed to achieve the target returns that are sought (Degeorge, Martin and Phalippou, 2016). For instance, where one firm focuses on margin growth while the other on sales growth, or when the general partners of the two PE firms have different educational backgrounds or career paths. Moreover, SBOs also create value when a global fund buys from a regional fund (Degeorge, Martin and Phalippou, 2016). This complementary expertise is especially important as the evidence on the performance of secondary buyouts (SBO) is at best mixed (Achleitner and Figge, 2014; Bonini, 2015; Jelic and Wright, 2011; Wang, 2012, Zhou, Jelic and Wright, 2014).

Importantly, the skills of the PE directors on the board of a particular portfolio company rather than at the fund level is critical, especially if this human capital involves financial and consultancy expertise to assist profitability and growth (Jelic, Zhou and Wright, 2018).

## Cost Structure Improvements

Several studies in the late 1980s found that the profitability gains in buyouts were directly associated with cost savings. The savings accrued by a swift tightening of corporate spending (Grossman and Hart, 1983) and the reduction of capital expenditures and divestment of under-utilized assets (Magowan, 1989). In manufacturing firms there was ample evidence for a reduction in production cost and an increase in plant productivity (Lichtenberg and Siegel, 1990). Asset divestiture could also lead to the redeployment of capital and new investments in plant and equipment (Wright, Thompson, and Robbie, 1992), which should have a positive impact on the cost structure of the firm.

What is noteworthy is that the cost savings from reduced employment levels are typically peripheral. While modest employment reductions are typically observed in the short-term, over the long-term the effect cancel out or even reverse (Amess, Girma, and Wright, 2014); this is especially the case for MBOs but less so for MBIs (Amess and Wright, 2007; Goergen, O’Sullivan, and Wood, 2014). Employment growth is particular notable in divisional deals, private-to-private buyouts and secondary buyouts (Meuleman et al., 2009; Boucly, Sraer, and Thesmar, 2011).

## Capital Management and Asset Utilization

A cornerstone of productivity improvements is to increase asset utilization. A more efficient use of corporate assets frees up resources, which is the primary cause for the reduction of capital requirements in buyouts (Bull, 1989). There is evidence that buyouts achieve cost reductions by rationalizing both the fixed or current assets and improve the management of working capital. For instance, since working capital is primarily tied up in inventory, researchers have found that by streamlining inventory control the working capital is dramatically reduced in post-buyout firms (Holthausen and Larcker, 1996). The practical methods for improving operational efficiency are typical industrial engineering practices, such as Six Sigma and Lean Enterprise.

A common method for improving cash management is to accelerate the collection accounts receivables, i.e. the outstanding customer debt. In practice, it can be achieved by enforcing payment terms, expediting distribution of invoices, shortening the payment period, prolonging the terms for supplier payment, and renegotiating prices (Niemeyer and Simpson, 2008).

# Strategic Drivers

Private equity firms strive to engage actively and participate in redirection of the portfolio company (Rogers et al., 2002). The logic behind the active participation in the strategic redirection and refocusing process is that it can be a substantial source of value generation. The activities can encompass the geographic target markets, market niche, product mix, customer segments, pricing strategy, distribution channels, after-sales services, and the future direction of the firm (Muscarella and Vetsuypens, 1990).

## Focusing on the Core: Complexity Reduction

The reason for focusing on the core business is that several empirical studies have shown that firms consisting of unrelated, diversified business units underperform (Rumelt, 1982). Moreover, there is evidence that shows that a reduction of the diversification is positively associated with increases in operating performance and firm value (Gadad and Thomas, 2004). Unsurprisingly, there is research reporting a reduction of business complexity in the post-buyout firms (Phan and Hill, 1995). A consequence of the focus on the core and divestment of unrelated businesses is post-buyout firm value increasing (Kaplan and Weisbach, 1992). As expected, there is also ample evidence for asset sales and divestment of non-core operations following a buyout (Aslan and Kumar, 2011). An explanation for the profitability increase is that divestment curbs costs associated with over-investment in mature and declining industries with limited growth prospects.

## Focusing on Consolidation: Buy and Build Strategies

The buy and build strategy became increasingly popular in the mid-1990s (CMBOR, 2017). Rigorous academic studies are sparse but some industry evidence suggests that buy and builds outperformed competing corporate strategies both in terms of growth profits and value for primary buyouts (Ernst and Young, 2008). A small-scale in-depth study by Hoffmann, 2008 found that buy and build strategies were highly successful in generating value with 75% of the firms generated an excess of 25% IRR[[2]](#footnote-2). The process of implementing a buy and build strategy begins with the acquisition of a nucleus firm in a fragmented industry, after which a series of successive roll-up acquisitions take place to create a market leader. The core business logic lies in market consolidation and thus amassing the advantages of scale economies, which concurrently leads to multiple expansion (Wright et al., 2001a). With respect to secondary buyouts, Wang (2012) finds in a rigorous academic study that performance improvements largely stem from acquisitive rather than organic growth.

From a managerial standpoint, a common measure in portfolio firms is to facilitate add-on acquisitions by using the capital that was freed up during prior divestments, while another is to free up capital by asset conversion. A factor that alleviates the level of capital is that the sequential add-on acquisitions are to be valued at substantially lower multiples than the consolidated firm during the exit.

## Focusing on Growth: Market Expansion

Growth is significant in and of itself, as firm growth is a parameter that affects firm value. Thus, growth and market expansion can be an important component of value creation, particularly when margins are not deteriorating. Access such fine grained information from published sources is challenging and studies have relied on proprietary data. One study of 32 private-equity companies in the portfolios of seven European private-equity firms based on proprietary data collected by Boston Consulting Group revealed that almost half of the total internal rate of return (IRR), or 22% of the total 48%, was attributable to sales growth, while an additional 5% was due to margin improvements (Meerkatt et al., 2008). Another academic study based on proprietary data from McKinsey finds that buyout firms both achieve higher sales growth and margin improvements relative to peers (Acharya et al., 2013).

A secondary effect is that a track record of growth tends to raise the valuation multiple. In the study by Meerkatt et al., 2008, another 10% of the IRR was attributed to an increase in valuation multiples, which although primarily the result of systematic increases in multiples across the markets, was in part caused by improved performance prospects at the time of exit.

An extensive research project on the different strategic approaches to organizational growth by McGrath and MacMillan (2005) found a number of key components, such as using the metrics of cash-flow velocity, asset utilization, customer performance, customer productivity, customer cash flow, and customer asset intensity. Representative survey evidence based on investor responses suggests that a shortcut to achieving growth is to recruit dynamic executives who can seek out and exploit growth opportunities, as opposed to recruiting executives with organizational skills to monitor the firm (Lockett, Murray, and Wright, 2002).

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# Governance Drivers

The governance driver concerns the changed organizational structure and administrative discipline exerted by the new owners. An early study to bring attention to the governance driver was the qualitative case study of the O.M. Scott & Sons Company, in which the operating improvements were attributed to changes in the incentive structure, the monitoring system, and the governance structure (Baker and Wruck, 1989). Another seminal study identified two factors that contribute to the productivity increase: the increased utilization of employees due to performance rewards and penalties, and the reduction of misallocation to inefficient activities due to curtailment of free cash flow (Lichtenberg and Siegel, 1990).

Particularly agency theory has long been the cornerstone of research on buyouts (Jensen and Meckling, 1976). The inherent conflict in corporations caused by interest divergence between managers and stockholders has a long history in economics and was noted in early studies by Adam Smith (1776) and Berle and Means (1932). Based on the understanding that the incentives for management to maximize firm value are weak, private equity firms rely on a number of mechanisms to realign the interested of the managers with their interests.

## The GP Effect: Experience and Expertise Matters

A major benefit from private equity ownership is the cross-utilization of industry expertise and management talent within the portfolio firms (Hite and Vetsuypens, 1989). Particularly pertinent is the accumulated experience of private equity professionals, which constitutes a knowledge transfer from the GPs to the portfolio firms (Baker and Smith, 1998).

Several researchers find that the industry expertise is garnered not merely from participating in buyouts, but from the extensive contact networks of talent and experienced management, based on experience of KKR one of the leading PE firms (Kaufman and Englander, 1993; Baker and Smith, 1998) and on detailed qualitative work relating to several cases (Bruining and Wright, 2002). Other researchers, based on more quantitative data, report that the fund performance increases with the experience of the GP and that the performance is persistent, i.e. GPs of the funds that outperform the industry in one fund are likely to outperform in the next fund (Schmidt et al., 2004; Kaplan and Schoar, 2005; Diller and Kaserer, 2007). A more recent study reports that an explanation is that experienced GPs successfully negotiate the acquisition prices down (Achleitner, Braun, and Engel, 2011).[[3]](#footnote-3) Castellaneta and Conti (2017) find that, of the overall value created by the private equity firm experience, around one third derives from the ability of the GP to restructure the target and the other two thirds from the ability to select a high potential target.

There is some evidence from combined qualitative and quantitative data that the fund outperformance is associated with the heterogeneous skills of the GP and the type of buyout (Hahn, 2009; Acharya et al., 2013). GPs with a managerial background from the industry or in consulting generated significantly higher outperformance in organic strategies due to frequent management change, active participation in the development of the business plan, and by substantial time commitments (Hahn, 2009). In turn, GPs with investment banking or accounting background generated a higher performance in consolidation strategies through high-powered incentives and revising the KPIs (Hahn, 2009). Moreover, PE directors with consulting experience and high level business education contribute to organizational growth, notably in secondary buyouts (Jelic, et al., 2018). However, Castellaneta and Salvato (2017) find that the relationship between PE directors experience and performance may not be obvious. Indeed, the time spent working together by the PE directors – so called time working together – has a U-shaped impact on buyout performance: in the initial stages of time spent working together buyout performance declines and, only above a certain threshold, its effect turns positive.

On a different note, private equity firms tend to focus on a limited number of industry sectors. Cressy, Munari, and Malipiero, 2007 report that private equity industry specialization adds 8.5% to the profitability over the first three post-buyout years.

There is also evidence that the experience in private equity scales better than in venture capital and leads to substantially higher revenues per partner in subsequent buyout funds (Metrick and Yasuda, 2010). A caveat here is that there are penalties for exceeding an investment threshold either when the number of concurrently managed portfolio firms increase (Castellaneta and Zollo, 2015) or as fund investment sizes increase per GP (Cumming and Walz, 2010).

## Reducing Agency Costs: Incentivization and Interest Realignment

An extensive amount of research has been directed at the *Carrot and Stick -mechanism* and particularly how this ameliorates agency costs during buyouts. Initially, the hypothesis was proposed by Lowenstein (1985) in a paper on MBOs, as a bifurcate mechanism for resolving the principal-agent conflict. The *carrot* in this context is the interest realignment between managers and owners, which develops by providing management with ownership stakes in the firm. The level of interest alignment determines how much of a firm’s potential performance will be realized (Gottschalg and Zollo, 2007). The assumption is that as executives get more incentives to support firm goals – that is, as interest alignment increases – they become more likely to make decisions that leverage firm capabilities and resources to raise economic performance (Castellaneta, 2016).

The *stick* is half of the equation and represents the negative incentive, i.e. *pain equity*, created by requiring management to make a substantial equity investment. This produces high personal costs for inefficiencies and the sizeable investment made by management relative to their personal net worth means there is a financial risk to the buyout (Thompson, Wright, and Robbie, 1992; Beaver, 2001). The rationale is that managers share the burden of loss which results from poor performance. This combination of considerable positive and negative incentives in a buyout is the foremost difference compared to traditional organizational forms. We also find a distinction with traditional firms in that there is an increased pay-to-performance sensitivity for a wide range of personnel (Fox and Marcus, 1992).

Other typical forms of compensation in private equity are performance ratchets. When pre-specified, ambitious performance targets are reached, management can be awarded increased equity ownership by the PE firm. The purpose of a ratchet is to induce management to improve performance for the duration of the holding period. Valkamaa, Maula, Nikoskelainen and Wright (2013) show that the use of an equity ratchet is positively related to both equity and enterprise value returns. Another crucial difference from traditional firms is that the equity is illiquid during the holding period until the exit (Jensen et al., 2006). The effect of illiquidity is that management is committed to the buyout to a completely different degree than in public firms.

## Restructuring the Board of Directors

Several studies have emphasized the contribution of boards of venture capital backed firms, particularly in terms of their supervisory function (Cornelli and Karakas, 2008), and strategic guidance (Gompers, Kaplan, and Mukharlyamov, 2015). Moreover, the principal control function of the board is to determine the composition of the management team (Baker and Montgomery, 1994).

With regards to the performance effect of board size, a fair amount of research has come to the conclusion that board size should be limited to 5-7 board members. For instance, a meta-review does find support for the board limitation in smaller corporations, defined as having revenues of less than $300m (Dalton, Daily, Johnson, and Ellstrand, 1999). Other studies find a significant negative correlation between increased board size and profitability (Eisenberg, Sundgren, and Wells, 1998), between board size and firm value (Yermack, 1996), and board size and performance measured by profitability, Tobin's q, and share returns (Guest, 2009).

Private equity firms typically appoint one to two general partners to represent the firm. Moreover, there is often a senior GP appointed to the role of chairman (Rogers et al., 2002; Jensen et al., 2006). Aside from the CEO and private equity firm representatives, the new board tends to be composed of more outside directors (Millson and Ward, 2005; Jensen et al., 2006; Cornelli and Karakas, 2008), especially in the US but less so in other countries such as the UK. With regards to involvement, private equity firms have a preference for active and participating boards that assemble frequently. A related characteristic of the boards of buyout firms is the accelerated decision making that takes place compared to the traditional competitors.

As discussed in the section on agency theory, a hallmark of the boards in buyouts is the reduction of agency costs. This includes providing equity ownership stakes that realign management incentives and instigating a regime of closer monitoring that reduces the discretionary decision space of management. Moreover, the principal control function of the board is to allow the owner to exert power in determining the composition of the management team. Besides often replacing the managing director at the inception, buyout boards tend to replace underperforming management more swiftly than traditional firms.

## Reinforcing the Management Team

Already in the mid-1960s, Manne (1965) proposed in his market for corporate control that equity markets could be the principal mechanism for facilitating corporate takeovers. In an efficient market, a firm would become more attractive as a target for a takeover, the lower its stock price became compared to the value potential with more efficient management. This corrective market mechanism to dispose of underperforming management is still a common method for buyout value creation. A cause for firm underperformance prior to a buyout is often the incumbent top management team, which is a cause remedied when the private equity firm replaces the inefficient team (Jensen and Ruback, 1983).

Buyouts can thus function as vehicles to improve market efficiency by rapid and decisive action to remove poorly performing managers (Gilson, 1989). Perhaps most importantly, Bertrand and Schoar (2003) report evidence confirming that CEOs affect firm performance significantly. Interestingly, the disruption caused by forced CEO replacement is associated with higher post-succession firm performance (Cornelli et al., 2013). As for buyouts, in a study by Acharya et al. (2013), a third of CEOs were replaced within 100 days of the buyout and a total of two-thirds within a four-year holding period.

# Cultural Drivers

Several researchers have reported on the changed corporate culture following a buyout, including the open and direct communication, the alleviated corporate bureaucracy, and the less-constrained atmosphere (Lowenstein, 1985; Jensen, 1989a; Hoskisson and Turk, 1990; Anders, 1992; Taylor, 1992). The changed modus operandi under the private equity ownership unfetters management from the grip of corporate bureaucracy and allows it to act without interference (Jensen, 1989a; Butler, 2001; Wright et al., 2001a).

## The Parenting Advantage: Monitoring and Mentoring

A framework frequently employed in conjunction with the private equity industry is the parenting advantage, which originally was proposed as an explanation for how diversified corporations can succeed. Campbell et al. (1995) argued that when the multi-business corporation created more value for the unrelated unit than rivals could, the unit benefited from a parenting advantage. In contrast, the unit ought to be divested when the incurred costs by the increased organizational complexities outweigh the advantages (Wright et al., 2000). From the parenting advantage framework, it appears that PE firms often excel in implementing common services in monitoring, mentoring, and learning.

Central to this approach is the adoption of an active ownership model, where constructive interaction is facilitated by direct communication channels and decreased levels of bureaucracy (Kester and Luehrman, 1995). Often the deal partners of the private equity firm discuss things directly with management on a daily or weekly basis, which is vastly different from the traditional context of a corporate board or conglomerate headquarters.

## The Value of Corporate Culture: A Revived Entrepreneurial Spirit

Buyouts are often viewed as a creative vehicle to reintroduce an entrepreneurial spirit in public companies (Singh, 1990). Freed from the constraints of corporate headquarters, the buyout firms can be transformed into entrepreneurial organizations (Kester and Luehrman, 1995; Weir, 1996; Bruining and Wright, 2002; Bruining et al., 2013). The change in sentiment that follows in the wake of the buyout can re-energize firms and spur management to make any effort that is necessary (Houlden, 1990; Beaver, 2001; Butler, 2001). The revival can be detected as an intensification of product development in the post-buyout firm (Wright and Coyne, 1985; Bull, 1989; Malone, 1989; Thompson et al., 1992). Unsurprisingly, the increase in entrepreneurship is positively associated with performance improvements (Wright, Wilson, Robbie, and Ennew, 1996).

There are several reasons for the lethargy that ails pre-buyout firms. In the non-core divisions of corporations, management is often provided with limited discretion (Weir, 1996; Beaver, 2001). Even when the division provides profitable and innovative investment opportunities these things may be given low attention by the corporate management (Wright et al., 2001a). Moreover, divisions of large corporations tend to be afflicted by significant agency problems, as the structures for incentive mechanisms and control functions are lacking (Fama and Jensen, 1983; Hill, 1988; Thompson and Wright, 1995).

Pre–buyout family–owned firms in turn often suffer from not being able to make necessary investments, either from being financially constrained or due to a risk–averse management (Meuleman et al., 2009). Bloom et al. (2015) report on a management competency gap in family–owned firms compared to private equity–owned buyout firms. Moreover, family firms may face succession problems when no family member willing or able to succeed in management (Howorth, Westhead, and Wright, 2004). On the other hand, the agency problem seen in divisions is typically mitigated by no prior separation of ownership and control, which means there is less scope for improving the control mechanisms (Chrisman, Chua, and Litz, 2004). In family firms where the ownership has been dispersed among family members some agency problems may exist (Schulze, Lubatkin, Dino, and Buchholtz, 2001; Howorth et al., 2004). The buyout can lead to a metamorphosis in the family firm, professionalizing management while at the same time retaining some elements of the family firm culture albeit with a ‘new’ family (Howorth et al., 2016).

Finally, a further aspect of the cultural revitalization in buyouts concerns the effect on HR practices, such as increased training, employee involvement, number of employees, and pay levels (Bruining, Boselie, Wright, and Bacon, 2005). In a comparison between the U.K. and the Netherlands, a representative survey of buyouts found that the positive effects were bolstered significantly in the HR practices in the less institutionalized environment of the U.K. (Bruining et al., 2005). The more institutionalized environment is defined as having higher participation in trade unions, recognizing collective bargaining, and having neutral attitudes towards union membership at the inception.

## Performance Management: Stretch Budgets and Ambitious Goals

A common measure in the private equity industry is to produce ambitious business plans that raise performance standards and expectations for management (Jensen, 1989a; Baker and Montgomery, 1994; Butler, 2001). Management is frequently challenged by stretch budgets, where the objective can be to double the EBITDA during the holding period (Anders, 1992; Baker and Montgomery, 1994). The idea behind stretch budgets and challenging goals is to incite management to excel.

Moreover, management is also forced to reach aggressive targets to serve interest payments in order to cope with the higher gearing and elevated risk for financial distress (Easterwood et al., 1989; Smith, 1990). Lastly, managers are forced to intensify their efforts or face the prospect of being replaced (Baker and Wruck, 1989; Magowan, 1989). Consequently, managers are willing to make unpopular decisions, e.g. reducing employment levels and disposing business units (Singh, 1990; Butler, 2001).

## Revising the Firm KPIs: Novel Yardsticks

The revision and implementation of key performance indicators (KPIs) is widespread in buyouts and there are a number of reasons for it. First, there is the notion that people tend to improve on that which is being measured. By carefully selecting the appropriate yardstick, management can ensure that personnel focus on the right goals. Furthermore, the prior metrics at the company or industry have been sub-optimal for directing the efforts and must be reassessed. Finally, using too many measurements causes management to lose focus.

Private equity firms typically devise a new system of key performance indicators to track portfolio firms based on a limited set of crucial objectives, e.g. cash flow ratios, EBITDA, and ROIC (Butler, 2001; Rogers et al., 2002; Zong, 2005). Acharya et al. (2008) find that private equity firm boards stress the importance of cash flow metrics, instead of delivery and swiftness of earnings. To these core financial indicators, private equity firms often add 2-3 industry-specific operational indicators. Complicated measurements are shunned since they tend to impede rather than speed up actions (Rogers et al., 2002). In fact, Heel and Kehoe (2005) report that performance-tracking systems had been implemented in 92% of the top performing buyouts, but in less than 50% in the bottom tercile.

## High Tempo and Inchoate Change

Bergström, Grubb, and Jonsson (2007) emphasize the importance of high tempo and momentum in the immediate post-buyout period in order to ensure post-buyout success. However, there is no academic research backing this argument. The only evidence in this respect comes from a McKinsey Quarterly article where Heel and Kehoe (2005) find that GPs involved in the top tercile of buyouts devoted more than half of their time to the portfolio firm during the first three months by often meeting daily with executives. In the lowest performing tercile, GPs spent only 20% of their time with the portfolio firm during this period. PE firms routinely create a *100-day plan* that prescribes the necessary changes during the period. There are a few principal reasons for this practice. Firstly, new owners are frequently under pressure to improve cash flows to serve the debt obligation, which means there is a limited window of time in which to enact operational improvements (Matthews et al., 2009). Secondly, immediate improvements in profitability will accumulate downstream during the holding period and in turn directly affect the exit valuation.

## The Holding Period Time Horizon

The holding periods of the buyouts tend to vary to some extent based on market conditions and locations, e.g. the median holding period was approximately four years in a study by Lopez-de-Silanes et al. (2015), while a study by Strömberg (2007) reports 6-7 years in the 1980’s and nine years in the late 1990s. More recent monitoring suggests that the holding period in the 2000s exceeded six years (CMBOR, 2017). However, when instead examining the holding period of the buyouts that produce the highest returns the answer is different. Lopez-de-Silanes et al. (2015) find a strong negative association between performance and duration. However, another study does not find that “quick flips” leads to significantly higher returns (Siming, 2010, p.119).

Several studies suggest that the strategic focus in buyout firms is on the long–term (Rogers et al., 2002; Jensen et al., 2006; Mills, 2006). Often the private equity firms develop an investment strategy during the 100–day plan for reshaping the business model, which determines the buyout firm direction for the holding period (Rogers et al., 2002). Bacon et al. (2013) and Hoskisson et al. (2013) take a different view suggesting that PE firm and buyouts are heterogeneous in their approaches. Some are long-term oriented whereas others are more short term. This is consistent with the evidence of heterogeneous longevity found by Kaplan (1991) and Wright et al., (1994; 1995). Some deals involve short term turnaround and rebounding strategies, while others involve strategies with longer term investment and payoffs (Bacon et al., 2013). Similarly with respect to PE firms, Castellaneta and Gottschalg (2016) suggest that some firms that have short holding periods need to have particular selection expertise, whereas those with long holding period need expertise to add value over the long term.

# Commercial Drivers

The commercial driver is partly based on value capture, i.e. value appropriation or transfer of wealth from prior shareholders and non-equity stakeholders. The lever is often multifaceted as value can originate from several sources. Value capture is intrinsically and fundamentally different from the other drivers of value creation, as new value is not created, but merely won or lost in what fundamentally constitutes a zero-sum game. This value is determined by two distinct moments: the entry and the exit transaction (even if these are in turn affected by the preceding history).

The stakeholders of a transaction here are defined broadly, since it can involve expending the resources of society due to decreasing taxes and a reduction of the workforce remuneration. Consequently, it is the most controversial driver for generating value in private equity buyouts and often at the center of criticism in the media. It should be noted that a substantial amount of research has been devoted to examining the *stakeholder expropriation hypothesis* – or *wealth transfer hypothesis* – and whether or not wealth is expropriated from pre-transaction stockholders, bondholders, or employees. Although, there are evident cases of expropriation, the overall empirical evidence does not support the hypothesis when accounting for the full population of buyouts (Renneboog and Simons, 2005).

Another common notion is that a party that possesses superior information compared to a counterpart can use it to gain from the losses sustained by the other party. Of particular interest is whether or not the information asymmetry referred to as private information is being abused during a management buyout (MBO). For instance, management may have an incentive to suppress profits prior to a buyout in order to drive down the price. This exploitation of private information, labeled as the undervaluation hypothesis (or the signaling hypothesis) was studied particularly in the first wave of buyouts in the early 1980s. The first to suggest that management could take advantage of information asymmetries by artificially depressing the company value through accounting measures before a management buyout was Lowenstein (1985). Initially some researchers found support for the hypothesis, e.g. the premiums paid for buyout target firms were the result of an undervaluation, which implied subsequent performance improvements due to the exploitation of private information during management buyouts (Baker and Wruck, 1989). Other researchers found that abnormal buying patterns preceded management buyouts, but not during externally induced buyouts (Harlow and Howe, 1993; Kaestner and Liu, 1996).

At the same time, other researchers reported potential gains from exploiting private information being inconsequential as an explanation for the subsequent performance improvement (Kaplan, 1989; Kaplan and Stein, 1993). It is also true that, under certain conditions, taking advantage of any private information could be considerably more difficult. For instance, Castellaneta et al. (2016) find that a stronger trade secrets protection might reduce the IRR of a buyout operating in an industry with substantial resource–value uncertainty and with high risk of making a poor—or “lemon”—investment. In this case, trade secret protection limits the amount of information available to the potential buyers, increasing the information asymmetries between potential buyers and the seller (i.e., the PE firm). This uncertainty about the value of the target firm motivates the buyers to discount their offers as a compensation for pursuing a more uncertain and riskier acquisition.

Moreover, there will be information asymmetries in any transaction, which does not necessary indicate improprieties. Extensive business advantages may stem from transaction experience, negotiation skills, extensive contact networks, firm valuation skills, market information, business intelligence, and industry expertise – all of which demonstrate various information asymmetries between the transaction parties (Anders, 1992; Fox and Marcus, 1992).

## Proprietary Deal Flow

Practitioners often proclaim the advantage of a proprietary deal flow, but support from longitudinal studies is scant, perhaps due to limited availability in data sets. Kaplan and Schoar (2005) propose that having better access to investments could be an explanation for the persistent performance variations observed among GPs. Schmidt et al. (2004) report that buyout fund performance is significantly related to the experience of the individual fund and further speculate that the reason might be access to a superior deal flow and in preferential management of buyout portfolios. Apart from the anecdotal evidence, more substantial support for proprietary deal flow is found by Loos (2006), who reports that proactive proprietary deal sourcing from the buyout firm leads to substantial returns, but that deal sourcing was less effective when coming from intermediaries (e.g. investment banks) or the GP’s contact network.

## Deal Making Expertise

An auction is the preferred method for optimizing the value for vendors, which conversely means it is the least favorable method for acquiring firms. The more restricted a transaction is from buyer competition, the lower the resulting transaction price (Wright et al., 1996; Baker and Smith, 1998). In particular, *hot auctions*, where fervent competition drives up prices, may result in the *winner’s curse*. A known tactic at auctions is to secure sole bidder status by making a high bid and re-negotiating the bid with uncovered flaws during the due diligence process, e.g. outdated equipment and environmental liabilities (Butler, 2001). Another tactic is to tie a bid to performance targets during a transfer period, which means if profitability suddenly deteriorates, the purchase price goes down or earnout clause are not triggered. A third method for gaining the upper hand is to be ready immediately as opportunities emerge (Fox and Marcus, 1992). Correspondingly, Wright et al. (1996) suggest that private equity investors should proactively approach attractive buyout targets before the competition is alerted. This may be especially important in buyouts of family firms where there may have been little succession planning and where the PE firm can act in an advisory role (Scholes et al., 2007) but where it may be important to address issues relating to the mistrust towards the motives of PE firms especially as family firms sellers may not be concerned only about price (Ahlers et al., 2016). PE firms may perceive that they have high bargaining power in buyout negotiations, depending on factors such as competition, expertise advantage, and seller's time pressure (Ahlers et al., 2015).

## Target Firm Identification and Investment Criteria

The buyout firm has traditionally been a firm with the ability to generate large cash flows, but with few net present value (NPV) positive investment opportunities. Opler and Titman (1993) reported that buyout target firms are more diversified than peers. Conversely, firms with expected high costs for financial distress are unlikely targets, e.g. high CAPEX industries and R&D intensive sectors. Puche, Braun, and Achleitner, 2015) report that value creation has been the highest in industrials and consumer services, while the lowest in technology companies.

Delving deeper into the attributes reveals that management buyouts have had higher cash flows as a percentage of sales than peers prior to the buyout, alongside lower levels of receivables to sales, and have been the object of more incidences of buyout speculation (Singh, 1990). With regards to target firms for public-to-private transactions, Masulis and Thomas (2009) report that these are likely to have a diffused ownership base, low levels of management shareholdings, performance insensitive compensation plans, deficient board oversight and control, and finally exhibit underperformance.

## Uncovering the Business Potential

The paucity of ideal target firms has forced the industry to make trade-offs and reconsider the target criteria since the 1990s, one important aspect of which as we have noted is the growth in secondary buyouts. However, instead of compromising on the target firms, the approach can instead be to choose atypical targets that at closer examination prove to be interesting. For instance, a business case within a highly cyclical industry can actually be an outstanding if the business cycle is in a trough. Correspondingly, a business case in an industry characterized by high capital expenditures, i.e. an unconventional buyout target, can be opportune if it is well invested. An untraditional target can mean less bidding competition, which result in an attractive valuation. At the core of this expertise may be the willingness to discard the initial impression and simple decision heuristics in accordance with research from the *dual process theory* (see e.g. Kahneman, 2011) in order to accurately identify the innate business potential of a prospect.

An important research question since the mid-1970s has been whether underperforming firms are typical buyout targets (Jensen and Meckling, 1976; Rumelt, 1982; Fox, and Marcus, 1992). The *underperformance hypothesis* suggested the existence of a market anomaly that could not be entirely explained with either the *free cash flow hypothesis* or the *private information hypotheses* (Nikoskelainen, 2006). An underperforming LBO target company could be identified if it generated sufficient cash flows, but had a lower Tobin’s Q than its peers, and the reasons for the underperformance could often be traced to the management (Nikoskelainen, 2006). Management may be honest but incompetent (Hendry, 2002), making mistakes or failing to address organizational problems leading to inefficiencies and unoptimized value destroying strategic actions. In his study, Nikoskelainen (2006) finds support for the underperformance hypothesis in target firms as compared to industry peers by lower levels of gearing, EBITDA margins, and a more volatile cash flow. A low level of gearing can thus signal that the company is unable to raise the funds for an optimal capital structure.

## Detecting Nascent Market Trends: Multiple Expansion

Practitioners often refer to an overall appreciation in value of business sectors and industries as multiple riding. Specifically, this refers to the multiple expansion or increase of the valuation multiple, where the multiple denotes EV (Enterprise Value) to EBIT or EBITDA (Corporate Finance Institute, 2018; Fraser-Sampson, 2010; Gilligan and Wright, 2014). However, an expanding market will not only increase the valuation multiple, but simultaneously increase top-line sales and EBITDA. There are a number of common ways by which private equity firms can gain from multiple arbitrage. For instance, multiples typically vary for comparable firms among different countries. Mature industries tend to be valued at lower multiples than growth firms, despite having equal levels of profitability. Public and private firms are valued and traded at different multiples with a higher multiple conferred to listed firms. Larger firms tend to receive valuations at higher multiples than smaller firms within the same industry. Furthermore, multiples tend to fluctuate in accordance with the business cycle. Finally, industry growth or improved future prospects both tend to increase the firm multiples.

While all of these factors influence multiples, two factors in particular rely on having superior market expertise: industry growth and business cycles. While business cycles are discussed in a separate section, superior market expertise on industry growth fundamentally means predicting long-term industry trends. The old maxim *“a rising tide lifts all boats”* is the guiding principle. Several studies have found that industry growth and GDP growth substantially affect buyout returns and the probability for positive abnormal market returns (Phalippou and Zollo, 2005a; Bergström et al., 2007; Valkama et al., 2013). Achleitner et al. (2011) report that EBITDA multiple expansion – aside from leverage and operational improvements – is fundamental to explaining equity returns.

## Timing the Business Cycles

A number of studies have examined whether investors can time market entry and exit so as to achieve gains from business cycles, e.g. return variations of fund vintage years, variations in the capital influx to the PE market, the cyclicality of PE firm returns, and variations in industry sensitivity to business cycles. Certain industries such as chemicals, energy, and telecom display substantial variations in the gross IRR across fund vintage years (Cornelius et al., 2009).

The vintage year return of private equity funds is associated with the business cycle of the private equity industry (Kaplan and Schoar, 2005). Explicitly, the vintage year performance variation appears to correspond to the availability of inexpensive debt financing, which drives up the valuation multiples for buyout firms to unsustainable levels. Consequently, the vintage year returns are likely to be low for funds raised in boom years (Kaplan and Schoar, 2005; Chew, 2009). From a practical standpoint this suggests that a useful indicator for investment timing would be to track the fraction of the capital allocation in PE compared to public equity and scale back the investments of a PE firm during peak years.

With regards to macroeconomic conditions, both a high GDP growth rate and public stock market returns at the time of the PE investment substantially improved fund performance (Phalippou and Zollo, 2005b). Moreover, low credit spreads or corporate bond yields at the time of the investment resulted in higher fund performance (Phalippou and Zollo, 2005b). Finally, Thomsen and Vinten (2007) found evidence of increased M&A activity in bull markets at peak valuations, while LBOs and MBOs are relatively more likely in bear markets with low valuations.

Although there has been some debate about the nature of returns, based on which dataset is used, recent evidence shows that as PE has become more competitive, persistence in outperformance has declined (Lerner, Schoar and Wongsunwai, 2007; Sensoy, Wang, and Weisbach, 2014; Braun, Jenkinsson, and Stoff, 2017).

## The Entry Transaction: Firm Valuation

A critical aspect of firm valuation expertise consists in having models that accurately reflect the intrinsic value of a firm and its future business. The most common financial methods for valuing a firm include the discounted cash flow (DCF), the adjusted present value (APV), weighted average cost of capital (WACC), and firm value multiples (Damodaran, 2006). Comparatively less common methods are CFE (Cash Flow to Equity), EVA (Economic value added), and CAPM (Capital Asset Pricing Model).

When comparing the price levels for buyouts to those acquired through an M&A, the evidence seems to support the view that PE firms pay less than competing acquirers. Several studies report that in Public-to-Private (P2P) transactions, existing shareholders receive a price premium that is between 20% to 40% when acquired by PE firms (Kaplan, 1989b; Wright et al., 2006; Bargeron, Schlingemann, Stulz, and Zutter, 2008). These results suggest private equity firms do pay a premium to shareholders, but one that is substantially less compared to the premium paid by public firms.

If we examine the mode of entry, we find that competitive auctions tend to maximize the acquisition price, which should affect buyout deal performance negatively. However, Loos (2006) reports that in a sample of 350 buyouts from 1973 and 2003 that the average gross IRR for deals entered through competitive auctions soar to 153% in realized deals, compared to 75% for a negotiated-sale and 75% for buy-side intermediary. A proposed explanation for the high returns is that the most attractive buyout targets exchange in competitive auctions and that the value generation potential remains superior despite the price premium. However, Loos (2006) does reports lower returns in more recent competitive auctions and for larger deals (with an average of $59 million)[[4]](#footnote-4).

## Divesting the Firm: The Mode of Exit

A common approach to maximize the exit value is to begin promoting the portfolio firm after the buyout through media events, interviews and press releases. A somewhat less widespread practice is *window-dressing*, i.e. to bolster the financial statement by accounting tricks, e.g. deferred capital expenditures. All else being equal, an IPO will typically garner the highest valuation and Sales/EBITDA multiples of all exit routes. A study by Chapman and Klein (2011) of 288 exited transactions between 1984 and 2006 across 19 industries found that firms exited through an IPO got the multiples of 11.7, while the trade sale got 7.6, secondary buyouts 7.1, and the recap 7.7. It is also the preferred route of exit for the most successful firms (Schwienbacher, 2005; Schmidt, Steffen, and Szabo, 2009). Indeed, the price premium for publicly traded firms tends to be close to 20% compared to private firms. Finally, IPOs are particularly auspicious in periods with high GDP growth (Schmidt et al., 2009).

The alternative that has been reported to garner the next highest price is exit as a secondary buyout. Achleitner, Bauer, Figge, and Lutz (2012) provide evidence that secondary buyouts can produce returns comparable to those achieved by an IPO. Furthermore, the study shows that the likelihood of a financial exit increases with the liquidity of debt markets and the debt capacity of the portfolio firm. In a follow up study, Achleitner and Figge (2014) find that the price premium from secondary buyouts are 6–9% higher than those of other buyouts. Yet, the study show that SBOs do not generate lower returns or less operational value creation, but do obtain 28–30% higher leverage after controlling for debt market conditions. This means that higher gearing would be necessary to achieve an identical return on investment. However, several other studies are more skeptical about the performance of secondary buyouts whether measured in terms of equity returns or profitability (e.g. Alperovych, Amess, and Wright, 2013; Bonini, 2015; Jelic and Wright, 2011; Wang, 2012; Zhou, et al., 2014; Jelic et al., 2018). Indeed, secondary buyouts may be bad deals because they oftentimes arise as fund managers are under pressure to invest (Arcot, Fluck, Gaspar, and Hege, 2015).

# Institutional Drivers

The value created by a buyout investment depends not only on the specificities of the acquired target and the changes promoted within the it, but also on a number of characteristics of the institutional environment (Groh et al, 2010). A vast stream of literature has analyzed how the institutional environment affects the supply of PE capital in a country and the return to buyout investments.

## Mitigated Legislative and Regulatory Constraints

Practitioners often claim that the principal advantage of buyout firms compared to traditional companies is the exemption from the restrictive legislation of public corporations. The CEO of a portfolio firm is subject to a substantially decreased media scrutiny compared to a public company, e.g. public criticism for the large amounts of equity-based compensation (Masulis and Thomas, 2009). Moreover, the disclosure requirements have rather increased in later years with new legislations for public companies, such as for the Sarbanes-Oxley Act of 2002 in the U.S. This is in stark contrast to portfolio firms, which rarely issue any public financial statements, whereas in most countries these are by law publicly available for any limited or incorporated private company, not to mention the disclosure requirements of public firms.

## The Corporate Tax Shield: Debt and Taxes

In the late 1980s multiple studies found evidence for debt being a significant source of value in buyouts, particularly in the U.S. (Lowenstein, 1985; Kaplan, 1989a). Substantial amounts of debt are typically used to acquire firms in buyouts and the associated interest payments tend to be tax deductible. The resultant *tax shield* has mainly been perceived as a component of financial engineering. However, it could be argued that the advantage derived from a tax reduction fundamentally constitutes a wealth transfer from a societal perspective and thus should be considered a lever of value capture.

Despite the advantages of tax deductions, this is not identical to proposing that the benefits accrue to private equity investors. More recently, a study of the 100 largest U.S. public-to-private takeovers during the years 2003 to 2008, Jenkinson and Stucke (2011) find a strong relationship between tax savings and the extent of price premium. In their analysis, the buyout premium paid to the former shareholders was twice the size of tax savings from increased financial leverage. The researchers conclude that the benefits typically accrue to the former shareholders and consequently the tax savings are likely negligible. Guo et al. (2011) report in a study of 192 large U.S. buyouts from 1990 to 2006 that the tax benefits from the increased leverage accounted for 33.8% out of the total returns. The caveat is that these studies concern public–to–private buyouts, which are not representative of the population of buyouts at large. Public–to–private buyouts account for a minority in the U.S. and the U.K., while being even rarer in continental Europe (CMBOR, 2017).

## Carried Interest and Capital Income

The second key tax advantage the private equity industry holds compared to traditional enterprises is the carried interest. Carried interest has undoubtedly been controversial in the media over the years and it remains unclear as to if and how these will change in different countries. Firstly, there is the broader question of tax rates on capital income, which in most countries and tax jurisdictions is currently taxed at flat rates ranging from 15% to 28.5%. Secondly, and at the core of the debate, is whether GPs should enjoy capital income tax rates for the carried interest. Carried interest is a form of remuneration awarded when partners exceed fund performance hurdle rate and can effectively function as an industry advantage in relation to traditional enterprises, e.g. during the recruitment process. However, only in a minority of cases is the carried interest threshold triggered and oftentimes returns are derived from management and monitoring fees (Metrick and Yasuda, 2010). The effect of the institutional advantage on Private Equity buyouts vs. traditional corporate acquisitions has yet to be examined by academics, albeit it would not be surprising if the high-powered incentives provided by PE- and in the portfolio firms does not affect the bottom line.

# Conclusion

This paper set out to review the existing literature with a view to proposing a novel and cohesive conceptual model of buyout value generation. The key contribution comes from extending previous attempts to organize the drivers of buyout value generation into a comprehensive, logical framework. The construction of an extended and redesigned framework provided the opportunity to systematize a wide range of empirical research coming from different fields of research over the past quarter of a century. Moreover, we have devoted particular attention to the findings of the strategy and entrepreneurship literatures, where there has been a growing number of studies in the last decade. Overall, the analysis resulted in the identification of seven drivers and twenty-two sub-drivers.

This literature review could be extended by future studies in (at least) six directions. First, we tried to conduct the most extensive literature review regarding the value creation drivers and sub-drivers of buyout investments. Notwithstanding this effort, future research should explore overlapping drivers in order to attempt to eliminate multi-colinearities and redundancies. Further, as shown by the number of recently published papers, this stream of research on value creation in buyout investments keeps growing. This produces a continuous redefinition and extension of the existing driver and sub-drivers which could enrich the proposed framework. This is especially important given recent fund level analyses that question the outperformance of PE, indicating the need for a constant search for additional value creation drivers.

Second, we have identified and listed a wide number of drivers and sub-drivers. Building on this extensive stream of literature, future research could try to identify the most effective configurations of different drivers and sub-drivers. This has important implications for both research and practice. Value creation configurations could identify the various complementarities and tensions: (a) between the different drivers; (b) between the different sub-drivers within each driver; (c) between the different sub-drivers of different drivers. Indeed, the importance of any value driver (or sub-driver) on buyout performance is likely contingent on the configuration of other drivers (or sub-drivers) on buyout performance. Consequently, two buyouts with an identical value driver will not necessarily have identical performance (everything else being equal) to the extent that they differ on other drivers. Therefore, the understanding of which factors reinforce (or weaken) each other is of crucial importance. This understanding also becomes important in comparing primary and secondary buyouts since we know little about how the effective configurations in the latter differ from those in the former. In sum, whereas the understanding of each value driver (and sub-driver) in isolation is important, it does not allow an overall comprehension of the relationships between these drivers and sub-drivers. To this end, the study of configurations represents an important opportunity to understand the overall picture of value creation processes in buyout investments.

Third, studies of drivers of value creation have been limited in the extent to which value creation is down to domestic versus international factors. Internationalization is oftentimes more challenging and riskier than domestic expansion and may require both incentives and resources. A PE backed buyout may bring increased ownership incentives for managers and monitoring and added value resources from financial investors. There is some evidence of a different approach to HRM policies by foreign owned PE firms compared to domestic firms (Bacon et al., 2012). One of the few available studies relating to international expansion by portfolio firms finds, based on a cross-sectional survey, that monitoring as opposed to value adding inputs by PE firms are more important for buyouts than for early stage VC backed firms in assisting the international expansion of the business (Lockett et al., 2008). What is lacking is analysis of whether better performing firms select into exporting following a buyout and/or whether PE investors help increase the export intensity of those portfolio firms already exporting, and what the drivers are of such changes. For example, to what extent do foreign PE investors, syndicates involving foreign PE firms and the appointment of directors with foreign market experience drive changes in export propensity and intensity?

Fourth, configurations and international aspects can be studied only to the extent that the researcher is able to build databases that capture the different value drivers and sub-drivers of value creation in buyout. Data collection efforts should be designed to capture the different drivers and sub-drivers and fully exploit the opportunities to study configurations offered by different data analysis techniques (e.g., principal component analysis, fuzzy-set and unsupervised machine learning techniques). In some jurisdictions, typically outside the US, private firms are legally obliged to provide details returns on their performance and these offer opportunities for large scale studies. Proprietary datasets may provide a richness of data not available from publicly available sources but care needs to be taken about their representativeness.

Fifth, a practical implication of the framework is that diverse means by which value is generated in buyouts, is explicit and logically organized. The framework could help practitioners to assess the potential improvement of companies during the target identification and the due diligence stage. From the managerial or consulting perspectives, the model provides guidance as to which changes may be enacted during the post-buyout holding period. However, introducing change in organizations may encounter resistance and research is needed to ascertain among managers and PE investors what are the key challenges to implementing different drivers and how these might be overcome.

Finally, the multiplicity of value creation drivers and sub-drivers identified in this study suggests that many private equity firms will need to widen their competency repertoire to exploit the different value creation opportunities and therefore secure business success over the long term. However, these different value creation drivers and sub-drivers require the development of a very heterogeneous set of skills and competences at the private equity firm level, which represents a big challenge for many players such as small firms with few resources or investors highly specialized on one value creation driver. The understanding of how private equity firms can overcome the difficulty of developing this diverse set of skills and competencies represents an interesting avenue for future research, one that may shed light on many puzzles regarding the drivers and the heterogeneity of private equity firms’ performance.

# References

Acharya, V. V., O. Gottschalg, M. Hahn, and C. Kehoe. 2013. “Corporate governance and value creation: Evidence from private equity”. *Review of Financial Studies*. 26(2): 368-402.

Acharya, V. V., C. Kehoe, and M. Reyner. 2008. “Private Equity vs. PLC Boards in the U.K.: A Comparison of Practices and Effectiveness”. *ECGI - Finance Working Paper No. 233/2009*.

Achleitner, A.-K., O. Bauer, C. Figge, and E. Lutz. 2012. “The case for secondary buyouts as exit channel”. *Journal of Applied Corporate Finance*. 24(4): 102-111.

Achleitner, A.-K., R. Braun, and N. Engel. 2011. “Value creation and pricing in buyouts: Empirical evidence from Europe and North America”. *Review of Financial Economics*. 20(4): 146-161.

Achleitner, A.-K. and C. Figge. 2014. “Private equity lemons? Evidence on value creation in secondary buyouts”. *European Financial Management*. 20(2): 406-433.

Ahlers, O., A. Hack, F. Kellermanns, and M. Wright. 2016. “Opening the black box: power in buyout negotiations and the moderating role of private equity specialization”. *Journal of Small Business Management*. 54(4): 1171-1192.

Ahlers, O., A. Hack, K. Madison, M. Wright, and F. Kellermanns. 2016. “Is it all about money? – Affective commitment and the difference between family and non-family sellers in buyouts”. *British Journal of Management*. 28(2): 159-179.

Alperovych, Y., K. Amess, and M. Wright. 2013. “Private equity firm experience and buy-out vendor source: What is their impact on efficiency?”. *European Journal of Operational Research.* 228(3): 601-611.

Amess, K. 2003. “The effect of management buyouts on firm-level technical efficiency: Evidence from a panel of UK machinery and equipment manufacturers”. *Journal of Industrial Economics.* 51(1): 35-44.

Amess, K. and M. Wright. 2007. “The wage and employment effects of leveraged buyouts in the UK”. *International Journal of the Economics of Business.* 14(2): 179-95.

Amess, K. and M. Wright. 2012. “Leveraged buyouts, private equity and jobs”. *Small Business Economics.* 38(4): 419-430.

Amess, K., S. Girma, and M. Wright. 2014. “The wage and employment consequences of ownership change”. *Managerial and Decision Economics.* 35(2): 161-171.

Amess, K., J. Stiebale, and M. Wright. 2015. “The impact of private equity on firms׳ patenting activity”. *European Economic Review.* 86: 147-160.

Anders, G. 1992. The “Barbarians” in the Boardroom. *Harvard Business Review*. 70(4): 79-87.

Arcot, S., Z. Fluck, J.-M. Gaspar, and U. Hege. 2015. “Fund managers under pressure: rationale and determinants of secondary buyouts”. *Journal of Financial Economics.* 115(1): 102-135.

Aslan, H. and P. Kumar. 2011. “Lemons or cherries? Growth opportunities and market temptations in going public and private”. *Journal of Financial and Quantitative Analysis*. 46(2): 489-526.

Axelson, U., T. Jenkinson, P. Strömberg, and M. S. Weisbach. 2013. “Borrow cheap, buy high? The determinants of leverage and pricing in buyouts”. *The Journal of Finance*. 68(6): 2223-2267.

Bacon, N., M. Wright, R. Ball, and M. Meuleman. 2013. “Private equity, HRM and employment”. *Academy of Management Perspectives.* 27(1): 7-21.

Bacon, N., M. Wright, M. Meuleman, and L. Scholes. 2012. “The impact of private equity on management practices in European buy-outs: Short-termism, Anglo-, Saxon, or host country effects?”. *Industrial Relations*. 51(s1): 605-626.

Baker, G. P. and C. Montgomery. 1994. *Conglomerates and LBO associations: A comparison of organizational forms*. Harvard Business School, Boston, MA.

Baker, G. P. and G. D. Smith. 1998. *The New Financial Capitalists: Kohlberg Kravis Roberts and the Creation of Corporate Value*. Cambridge University Press.

Baker, G. P. and K. H. Wruck. 1989. “Organizational changes and value creation in leveraged buyouts: The case of the O.M. Scott and Sons Company”. *Journal of Financial Economics*. 25(2): 163-190.

Baker, M., R. Greenwood, and J. Wurgler. 2003. “The maturity of debt issues and predictable variation in bond returns”. *Journal of Financial Economics*. 70(2): 261-291.

Baker, M. and J. Wurgler. 2000. “The equity share in new issues and aggregate stock returns”. *The Journal of Finance*. 55(5): 2219-2257.

Bargeron, L. L., F. P. Schlingemann, R. M. Stulz, and C. J. Zutter. 2008. “Why do private acquirers pay so little compared to public acquirers?”. *Journal of Financial Economics*. 89(3): 375-390.

Beaver, G. 2001. “Management buy-outs: Who dares wins?”. *Strategic Change*. 10(6): 307-309.

Berg, A. and O. Gottschalg. 2005. “Understanding value generation in buyouts”. *Journal of Restructuring Finance.* 2(01): 9-37.

Bergström, C., M. Grubb, and S. Jonsson. 2007. “The operating impact of buyouts in Sweden: A study of value creation”. *The The Journal of Private Equity*. 22-39.

Berle, A. and G. Means. 1932. *The modern corporation and private property*. Macmillan, NY.

Bernstein, S. and A. Sheen. 2016. “The operational consequences of private equity buyouts: Evidence from the restaurant industry”. *Review of Financial Studies.* 29(9): 2387-2418.

Bertrand, M. and A. Schoar. 2003. “Managing with style: The effect of managers on corporate policy”. *The Quarterly Journal of Economics*. 118(4): 1169-1208.

Bloom, N., R. Sadun, and J. Van Reenen. 2015. “Do private equity owned firms have better management practices?”. *American Economic Review: Papers and Proceedings*. 105(5): 442-46.

Bonini, S. 2015. “Secondary buyouts: Operating performance and investment determinants”. *Financial Management*. 44(2): 431-470.

Boucly, Q., D. Sraer, and D. Thesmar. 2011. “Growth LBOs”. *Journal of Financial Economics.* 102(2): 432-453.

Braun, R., T. Jenkinson, and I. Stoff. 2017. “How persistent is private equity performance? Evidence from deal-level data”. *Journal of Financial Economics.* 123(2): 273-291.

Bruining, H., P. Boselie, M. Wright, and N. Bacon. 2005. “The impact of business ownership change on employee relations: Buy-outs in the UK and the Netherlands”. *International Journal of Human Resource Management.* 16(3): 345-365.

Bruining, H., E. Verwaal, and M. Wright. 2013. “Private equity and entrepreneurial management in management buy-outs”. *Small Business Economics*. 40(3), 591-605.

Bruining, H. and M. Wright. 2002. “Entrepreneurial orientation in management buy-outs and the contribution of venture capital”. *Venture Capital: An International Journal of Entrepreneurial Finance*. 4(2): 147-168.

Bull, I. 1989. “Financial performance of leveraged buyouts: An empirical analysis”. *Journal of Business Venturing*. 4(4): 263-279.

Butler, P. A. 2001. “The alchemy of LBOs”. *The McKinsey Quarterly*. 140-151.

Campbell, A., M. Goold, and M. Alexander. 1995. “The value of the parent company”. *California Management Review*. 38(1): 79-97.

Castellaneta F. 2016. “Building firm capability: Managerial incentives for top performance”. *Journal of Business Strategy.* 37(4): 41-46.

Castellaneta F. and R. Conti. 2017. “How does acquisition experience create value? Evidence from a regulatory change affecting the information environment”. *European Management Journal.* 35(1): 60-68.

Castellaneta F., R. Conti, A. Kacperczyk. 2017. “Money secrets: How does trade secret legal protection affect firm market value? Evidence from the Uniform Trade Secret Act”. *Strategic Management Journal.* 38(4): 834-853.

Castellaneta, F. and O. Gottschalg. 2016. “Does ownership matter in private equity? The sources of variance in buyouts' performance”. *Strategic Management Journal*. 37(2): 330-348.

Castellaneta F. and C. Salvato. 2017. “Culminating events and time working together in top management teams: Insights from private equity”. *Long Range Planning*.

Castellaneta F. and M. Zollo. 2015. “The dimensions of experiential learning in the management of activity load”. *Organization Science.* 26(1): 140-157.

Chapman, J. L. and P. G. Klein. 2011. “Value creation in middle-market buyouts: A transaction-level analysis” in Douglas Cumming (ed.): “Private Equity: Fund Types, Risks and Returns, and Regulation”. John Wiley & Sons, Inc., Hoboken, New Jersey.

Chew, D. 2009. “The future of private equity”. *Journal of Applied Corporate Finance*. 21(3): 8-20.

Chrisman, J. J., J. H. Chua, and R. A. Litz. 2004. “Comparing the agency costs of family and non-family firms: Conceptual issues and exploratory evidence”. *Entrepreneurship Theory and Practice*. 28(4): 335-354.

CMBOR. 2017. “European management buyouts”. Imperial College London: *Centre for Management Buy-out and Private Equity Research*, Autumn.

Cornelius, P., K. Juttmann, and R. de Veer. 2009. “Industry cycles and the performance of buyout funds”. *The Journal of Private Equity*. 12: 14-21.

Cornelli, F. and O. Karakas. 2008. “Private equity and corporate governance: Do LBOs have more effective boards?”. *The Global Economic Impact of Private Equity Report 2008*. London Business School.

Cornelli, F., Z. Kominek, and A. Ljungqvist. 2013. “Monitoring managers: Does it matter?”. *The Journal of Finance*. 68(2): 431-481.

Corporate Finance Institute. 2018. Multiple Expansion. [accessed October 30, 2018] <https://corporatefinanceinstitute.com/resources/knowledge/valuation/multiple-expansion/>

Cotter, J. F., and S. W. Peck. 2001. “The structure of debt and active equity investors: The case of the buyout specialist”. *Journal of Financial Economics*. 59(1): 101-147.

Coyne, J. and M. Wright. 1982. “Buyouts and British industry”. *Lloyds Bank Review*. 146: 15-31.

Cressy, R. C., F. Munari, and A. Malipiero. 2007. “Playing to their strengths? Evidence that specialization in the private equity industry confers competitive advantage”. *Journal of Corporate Finance*. 13(4): 647-669.

Cumming, D., Siegel, D. S., and Wright, M. 2007. “Private equity, leveraged buyouts and governance”. *Journal of Corporate Finance*. 13(4): 439-460.

Cumming, D. and U. Walz. 2010. “Private equity returns and disclosure around the world”. *Journal of International Business Studies*. 41(4): 727-754.

Dalton, D. R., C. M. Daily, J. L. Johnson, and A. E. Ellstrand. 1999. “Number of directors and financial performance: A meta-analysis”. *The Academy of Management Journal*. 42(6): 674-686.

Damodaran, A. 2001. *Corporate finance: Theory and practice*. Wiley Series in Finance, second edition. Wiley.

Damodaran, A. 2006. *Applied corporate finance: A user’s manual*. U.K.: John Wiley and Sons Ltd.

Degeorge, F., J. Martin, and L. Phalippou. 2016. “On secondary buyouts”. *Journal of Financial Economics.* 120(1): 124-145.

Diller, C. and C. Kaserer. 2007. “What drives private equity returns? – Fund inflows, skilled GPs, and/or risk?”. *European Financial Management*. 15(3): 643-675.

Easterwood, J. C., A. Seth, and R. F. Singer. 1989. “The impact of leveraged buyouts on strategic direction”. *California Management Review*. 32(1): 30-43.

Eisenberg, T., S. Sundgren, and M. Wells. 1998. “Larger board size and decreasing firm value in small firms”. *Journal of Financial Economics*. 48(1): 35-54.

Ernst and Young. 2008. “How do private equity investors create value? A study of 2006 exits in the US and Western Europe”. EY. London, U.K.

Fama, E. F. 1980. “Agency problems and the theory of the firm”. *Journal of Political Economy*. 88(2): 288-307.

Fama, E. F. and M. C. Jensen. 1983. “Separation of ownership and control”. *Journal of Law and Economics*. 26(2): 301-325.

Fox, I. and A. Marcus. 1992. “The causes and consequences of leveraged management buyouts”. *The Academy of Management Journal*. 17(1): 62-85.

Fraser-Sampson, G. 2010. *Private equity as an asset class*. London: Wiley. 2nd edition.

Gadad, A. M. and H. Thomas. 2004. “Do asset sales lead to improvements in operating performance?”. *Applied Economics*. 36(8): 865-871.

Gilligan, J. and M. Wright. 2014. *Private equity demystified*. London: ICAEW.

Gilson, S. C. 1989. “Management turnover and financial distress”. *Journal of Financial Economics*. 25(2): 241-262.

Goergen, M., N. O’Sullivan, and G. Wood. 2014. “The employment consequences of private equity acquisitions: The case of institutional buy outs”. *European Economic Review*. 71: 67-79.

Gompers, P. A., S. N. Kaplan, and V. Mukharlyamov. 2016. What Do Private Equity Firms Say They Do? *Journal of Financial Economics*. Vol. 121: 3.

Gompers, P. A., A. Kovner, J. Lerner, and D. S. Scharfstein. 2006. *“Skill vs. luck in entrepreneurship and venture capital: Evidence from serial entrepreneurs”.* (No. w12592). National bureau of economic research.

Groh, A. P., von Liechtenstein, H., & Lieser, K. 2010. The European venture capital and private equity country attractiveness indices. *Journal of Corporate Finance*, 16(2), 205-224.

Grossman, S. J. and O. D. Hart. 1982. “Corporate financial structure and managerial incentives”. The economics of information and uncertainty. University of Chicago Press. 107-140.

Guest, P. M. 2009. “The impact of board size on firm performance: Evidence from the UK”. *The European Journal of Finance*. 15(4): 385-404.

Guo, S., E. S. Hotchkiss, and W. Song. 2011. “Do buyouts (still) create value?”. *The Journal of Finance*. 66(2): 479-517.

Hahn, M. 2010. *Essays on private equity value creation*. (Doctoral dissertation, lmu).

Harlow, W. V, and J. S. Howe. 1993. “Leveraged buyouts and insider nontrading”. *Financial Management*. 22(1): 109-118.

Harris, R., Jenkinson, T., Kaplan, S., Stucke, R. 2014. “Has Persistence Persisted in Private Equity? Evidence from Buyout and Venture Capital Funds”. Darden Business School Working Paper No. 2304808, Fama-Miller Working Paper. Rev. 30 Aug 2014.

Harris, R., D. S. Siegel, and M. Wright. 2005. “Assessing the impact of management buyouts on economic efficiency: Plant-level evidence from the United Kingdom”. *Review of Economics and Statistics.* 87(1): 148-153.

Heel, J. and C. F. Kehoe. 2005. “Why some private equity firms do better than others”. *The McKinsey Quarterly*. 1: 24-26.

Hendry, J. 2002. The principal’s other problems: Honest incompetence and management contracts. *Academy of Management Review*, 27: 98-113

Hill, C. W. L. 1988. “Internal capital market controls and financial performance in multidivisional firms”. *The Journal of Industrial Economics*. 37(1): 67-83.

Hite, G. L. and M. R. Vetsuypens. 1989. “Management buyouts of divisions and shareholder wealth”. *The Journal of Finance*. 44(4): 953-970.

Hoffmann, N. 2008. *German buyouts adopting a buy and build strategy: key characteristics, value creation and success factors*. (Vol. 22). Springer Science & Business Media.

Holthausen, R. W. and D. F. Larcker. 1996. “The financial performance of reverse leveraged buyouts”. *Journal of Financial Economics*. 42(3): 293-332.

Hoskisson, R. E. and T. A. Turk. 1990. “Corporate restructuring: Governance and control limits of the internal capital market”. *The Academy of Management Review*. 15(3): 459-477.

Hoskisson, R. E., S. Wei, Y. Xiwei, and J. Jing. 2013. “The evolution and strategic positioning of private equity firms”. *Academy of Management Perspectives*. 27(1): 22-38.

Houlden, B. 1990. “Buyouts and beyond: Motivations, strategies and ownership changes”. *Long Range Planning*. 23(4): 73-77.

Howorth, C., P. Westhead, and M. Wright. 2004. “Buyouts, information asymmetry and the family management dyad”. *Journal of Business Venturing*. 19(4) 509-534.

Howorth, C., M. Wright, P. Westhead, and D. Allcock. 2016. “Company metamorphosis: Professionalization waves, family firms and management buyouts”. *Small Business Economics*. 47(3): 803-817.

Ivashina, V. and A. Kovner. 2011. “The private equity advantage: Leveraged buyout firms and relationship banking”. *Review of Financial Studies*. 24(7): 2462-2498.

Jelic, R. and M. Wright. 2011. “Exits, performance, and late stage private equity: The case of UK management buy‐outs”. *European Financial Management*. 17(3): 560-593.

Jelic, R., Zhou, D., & M. Wright. 2018. “Sustaining the buyout governance model: Inside secondary management buyout boards”. *British Journal of Management*, forthcoming.

Jenkinson, T., and R. Stucke. 2011. “Who benefits from the leverage in LBOs?”.

Jensen, M. C. 1986. “Agency costs of free cash flow, corporate finance, and takeovers”. *The American Economic Review*. 76(2): 323-329.

Jensen, M. C. 1989a. “Active investors, LBOs, and the privatization of bankruptcy”. *Journal of Applied Corporate Finance*. 22(1): 77-85.

Jensen, M. C. 1989b. “Eclipse of the public corporation”. *Harvard Business Review*. 67(5): 61-74.

Jensen, M. C., S. N. Kaplan, C. Ferenbach, and M. Feldberg. 2006. “Morgan Stanley roundtable on private equity and its import for public companies”. *Journal of Applied Corporate Finance*. 18(3): 8-37.

Jensen, M. C. and W. H. Meckling. 1976. “Theory of the firm: Managerial behavior, agency costs and ownership structure”. *Journal of Financial Economics*. 3(4): 305-360.

Jensen, M. C. and K. J. Murphy. 1990. “Performance pay and top-management incentives”. *Journal of Political Economy*. 98(2): 225-264.

Jensen, M. C. and R. S. Ruback. 1983. “The market for corporate control: The scientific evidence”. *Journal of Financial Economics*. 11(1-4): 5-50.

Kaestner, R. and F. Y. Liu. 1996. “Going private restructuring: The role of insider trading”. *Journal of Business Finance and Accounting*. 23(5-6): 779-806.

Kahneman, D. 2011. *Thinking, fast and slow*. New York: Farrar, Straus and Giroux.

Kaplan, S. N. 1989. “The effects of management buyouts on operating performance and value”. *Journal of Financial Economics*. 24(2): 217-254.

Kaplan, S. N. 1991. “The staying power of leveraged buyouts”. *Journal of Financial Economics*. 29(2): 287-313.

Kaplan, S. N. and A. Schoar. 2005. “Private equity performance: Returns, persistence, and capital flows”. *The Journal of Finance*. 60(4): 1791-1823.

Kaplan, S. N. and J. C. Stein. 1993. “The evolution of buyout pricing and financial structure”. *Journal of Applied Corporate Finance.* 6(1): 72-88.

Kaplan, S. N. and P. Strömberg. 2004. “Characteristics, contracts, and actions: Evidence from venture capitalist analyses”. *The Journal of Finance*. 59(5): 2177-2210.

Kaplan, S. N. and P. Strömberg. 2009. “Leveraged buyouts and private equity”. *The Journal of Economic Perspectives*. 23(1): 121-146.

Kaplan, S. N. and M. S. Weisbach. 1992. “The success of acquisitions: Evidence from divestitures”. *The Journal of Finance*. 47(1): 107-138.

Kaufman, A. and E. Englander. 1993. “Kohlberg, Kravis Roberts and Co. and the restructuring of American capitalism”. *Business History Review*. 67(1): 52-97.

Kester, W. C. C. and T. A. Luehrman. 1995. “Rehabilitating the leveraged buyout”. *Harvard Business Review*. 73(3): 119-130.

Klein, G. 2007. “Performing a project premortem”. *Harvard Business Review*. 85(9): 18-19.

Lerner, J., A. Schoar, and W. Wongsunwai. 2007. “Smart institutions, foolish choices: The limited partner performance puzzle”. *Journal of Finance.* 62(2): 731-764.

Lerner, J., M. Sorensen, and P. Stromberg. 2011. “Private equity and long-run investment: The case of innovation”. *Journal of Finance*. 66(2): 445-477.

Lichtenberg, F. R., and Siegel, D. S. 1990. “The effects of leveraged buyouts on productivity and related aspects of firm behavior”. *Journal of Financial Economics*. 27(1): 165-194.

Lieber, D. 2004. “Proactive portfolio management: Manage now to realize returns later”. *The Journal of Private Equity*. 72-82.

Lockett, A., Murray, G., and Wright, M. 2002. “Do UK venture capitalists still have a bias against investment in new technology firms”. *Research Policy*. 31(6): 1009-1030.

Lockett, A., M. Wright, A. Burrows, L. Scholes, and D. Paton. 2008. “Export intensity of venture capital backed companies”. *Small Business Economics*. 31(1): 39-58.

Loos, N. 2006. *Value creation in leveraged buyouts*. University of St. Gallen, Switzerland.

Lopez-de-Silanes, F., L. Phalippou, and O. Gottschalg. 2015. “Giants at the gate: Investment returns and diseconomies of scale in private equity”. *Journal of Financial and Quantitative Analysis.* 50(3): 377-411.

Lowenstein, L. 1985. “Management buyouts”. *Columbia Law Review*. 85(4): 730-784.

Magowan, P. A. 1989. “The case for LBOs: The Safeway experience”. *California Management Review*. 32(1): 9-18.

Malone, S. C. 1989. “Characteristics of smaller company leveraged buyouts”. *Journal of Business Venturing*. 4(5): 345-359.

Manne, H. G. 1965. “Mergers and the market for corporate control”. *Journal of Political Economy*. 73(2): 110-120.

Masulis, R. W. and R. S. Thomas. 2009. “Does private equity create wealth? The effects of private equity and derivatives on corporate governance”. *The University of Chicago Law Review*. 219-259.

Matthews, G., Bye, M., and J. Howland. 2009. “Operational improvement: The key to value creation in private equity”. *Journal of Applied Corporate Finance*. 21(3): 21-27.

McGrath, R. G. and I. C. MacMillan. 2005. “Market busting: Strategies for exceptional business growth”. *Harvard Business Review*. 83(3): 80-89.

Meerkatt, H., Rose, J., M. Brigl, H. Liechtenstein, M. J. Prats. 2008. “The advantage of persistence: How the best private-equity firms ‘beat the fade’”. *IESE Insight and BCG Perspectives*.

Metrick, A. and A. Yasuda. 2010. “The economics of private equity funds”. *The Review of Financial Studies*. 23(6): 2303-2341.

Meuleman, M., K. Amess, M. Wright, and L. Scholes. 2009. “Agency, strategic entrepreneurship, and the performance of private equity-backed buyouts”. *Entrepreneurship Theory and Practice*. 33(1): 213-239.

Mills, R. 2006. “Emerging trends in mergers and acquisitions and the importance of private equity and hedge funds”. *Henley Manager Update*. 18(1): 27-38.

Millson, R. and M. Ward. 2005. “Corporate governance criteria as applied in private equity investments”. *South African Journal of Business Management*. 36(1): 78-83.

Mishkin, F. S. and S. Eakins. 2011. *Financial markets and institutions*. The Prentice Hall Series in Finance, seventh edition. Prentice Hall.

Montgomery, C. A., A. B. Thomas, and R. Kamath. 1984. “Divestiture, market valuation, and strategy”. *The Academy of Management Journal*. 27(4): 830-840.

Muscarella, C. J. and M. R. Vetsuypens. 1990. “Efficiency and organizational structure: A study of reverse LBOs”. *The Journal of Finance*. 45(5): 1389-1413.

Niemeyer, A. and B. Simpson. 2008. “Freeing up cash from operations”. *The McKinsey Quarterly*. 4.

Nikoskelainen, E. 2006. “The operating characteristics of leveraged buyouts: Empirical evidence from Europe”. *Liiketaloudellinen aikakauskirja*. 3: 296-335.

Nikoskelainen, E. and M. Wright. 2007. “The impact of corporate governance mechanisms on value increase in leveraged buyouts”. *Journal of Corporate Finance*. 13(3): 511-537.

Opler, T. C. and S. Titman. 1993. “The determinants of leveraged buyout activity: Free cash flow vs. financial distress costs”. *The Journal of Finance*. 48(5): 1985-1999.

Palepu, K. G. 1990. “Consequences of leveraged buyouts”. *Journal of Financial Economics*. 27(1): 247-262.

Phalippou, L. and M. Zollo. 2005a. *Performance of private equity funds: Another puzzle?* INSEAD.

Phalippou, L. and M. Zollo. 2005b. “What drives private equity fund performance?”. *Unpublished working paper*.

Phan, P. H. and C. W. L. Hill. 1995. “Organizational restructuring and economic performance in leveraged buyouts: An ex post study”. *The Academy of Management Journal*. 38(3): 704-739.

Puche, B., R. Braun, and A.-K. Achleitner. 2015. “International evidence on value creation in private equity transactions”. *Journal of Applied Corporate Finance*. 27(4): 105-122.

Renneboog, L. and T. Simons. 2005. *“Public-to-private transactions: LBOs, MBOs, MBIs and IBOs”.* Tilburg University.

Renneboog, L., T. Simons, and M. Wright. 2007. “Why do firms go private in the UK?”. *Journal of Corporate Finance*. 13(4): 591-628.

Renneboog, L. and C. Vansteenkiste. 2017. “Leveraged buyouts: Motives and sources of value”. *Annals of Corporate Governance*. 2(4): 291-389.

Rogers, P., T. Holland, and D. Haas. 2002. “Value acceleration: Lessons from private-equity masters”. *Harvard Business Review*. 80(6): 94-101.

Rumelt, R. P. 1982. “Diversification strategy and profitability”. *Strategic Management Journal*. 3(4): 359-369.

Scellato, G and E. Ughetto. 2013. “Real effects of private equity investments: Evidence from European buyouts”. *Journal of Business Research.* 66(12): 2642-2649.

Sensoy, B. A., Y. Wang, and M. S. Weisbach. 2014. “Limited partner performance and the maturing of the private equity industry”. *Journal of Financial Economics.* 112(3): 320-343.

Schmidt, D., E. Nowak, and A. Knigge. 2004. “On the performance of private equity investments: Does market timing matter?”.

Schmidt, D., S. Steffen, and F. Szabo. 2009. “Exit strategies of buyout investments – An empirical analysis”. *Journal of Alternative Investments.* 12(4): 58-84.

Scholes, L., M. Wright, P. Westhead, A. Burrows, and H. Bruining. 2007. “Information sharing, price negotiation and management buy-outs of private family-owned firms”. *Small Business Economics*. 29(3): 329-349.

Schulze, W. S., M. H. Lubatkin, R. Dino, and A. Buchholtz. 2001. “Agency relationships in family firms: Theory and evidence”. *Organization Science*. 12(2): 99-116.

Schwienbacher, A. 2005. *“An empirical analysis of venture capital exits in Europe and the United States”*. EFA 2002 Berlin Meetings Discussion Paper. Available at SSRN: <https://ssrn.com/abstract=302001> or <http://dx.doi.org/10.2139/ssrn.302001>

Siming, L. 2010. *“Private equity and advisors in mergers and acquisitions”*. EFI-Economic Research Institute.

Singh, H. 1990. “Management buyouts: Distinguishing characteristics and operating changes prior to public offering”. *Strategic Management Journal*. 111-129.

Smith, A. 1776. *An inquiry into the nature and causes of the wealth of nations*. London, U.K.

Smith, A. J. 1990. “Corporate ownership structure and performance: The case of management buyouts”. *Journal of Financial Economics*. 27(1): 143-164.

Strömberg, P. 2007. “The new demography of private equity”. *The global impact of private equity report*. 1: 3-26.

Taylor, W. 1992. “Crime? Greed? Big ideas? What were the ’80s about?”. *Harvard Business Review*. 32-45.

Thomsen, S., F. C. Vinten. 2007. Equity Market Timing and the Decision to Delist. Working Paper. Copenhagen Business School, Copenhagen, Denmark. 137–169.

Ughetto, E. 2016. “Investments, financing constraints and buyouts: The effect of private equity investors on the sensitivity of investments to cash flow”. *The Manchester School.* 84(1): 25-54.

Ughetto, E. 2010. “Assessing the contribution to innovation of private equity investors: A study on European buyouts”. *Research Policy.* 39(1): 126-140.

Vafeas, N. 1999. “Board meeting frequency and firm performance”. *Journal of Financial Economics*. 53(1): 113-142.

Valkama, P., M. Maula, E. Nikoskelainen, and M. Wright. 2013. “Drivers of holding period firm-level returns in private equity-backed buyouts”. *Journal of Banking and Finance*. 37(7): 2378-2391.

Wang, Y. 2012. “Secondary buyouts: What buy and at what price?”. *Journal of Corporate Finance*. 18(5): 1306-1325.

Weir, C. 1996. “Management buyouts and entrepreneurial opportunities”. *Management Decisions*. 34(3): 23-28.

Wilson N. and M. Wright. 2013. “Private Equity, Buy‐outs and Insolvency Risk”. *Journal of Business Finance and Accounting.* 40(7-8): 949-900.

Wood, G. and M. Wright. 2009. “Private equity: A review and synthesis”. *International Journal of Management Reviews*, 11(4): 361-380.

Wright, M. and J. Coyne. 1985. *Management buy-outs*. London: Croom Helm.

Wright, M., K. Robbie, S. Thompson, and K. Starkey. 1994. “Longevity and the life-cycle of management buyouts”. *Strategic Management Journal*. 15(3): 215-227.

Wright, M., S. Thompson, K. Robbie, and P. Wong. 1995. “Management buy-outs in the short and long term”. *Journal of Business Finance and Accounting*. 22(4): 461-482.

Wright, M., J. Gilligan, and K. Amess. 2009. “The economic impact of private equity: What we know and what we would like to know”. *Venture Capital: An International Journal of Entrepreneurial Finance*. 11(1): 1-21.

Wright, M., R. E. Hoskisson, and L. W. Busenitz. 2001. “Firm rebirth: Buyouts as facilitators of strategic growth and entrepreneurship”. *The Academy of Management Executive*. 15(1): 111-125.

Wright, M., R. E. Hoskisson, L. W. Busenitz, and J. Dial. 2000. “Entrepreneurial growth through privatization: The upside of management buyouts”. *Academy of Management Review*. 25(3): 591-601.

Wright, M., M. C. Jensen, D. Cumming, and D. S. Siegel. 2007. “The impact of private equity: Setting the record straight”. *CMBOR University of Nottingham*. 6.

Wright M., R. Cressy, N. Wilson, and H. Farag. 2014. “Financial restructuring and recovery in private equity buyouts: The UK evidence”. *Venture Capital: An International Journal.* 16(2): 109-129.

Wright, M., L. Renneboog, T. Simons, and L. Scholes. 2006. “Leveraged buyouts in the U.K. and Continental Europe: Retrospect and prospect”. *Journal of Applied Corporate Finance*. 18(3): 38-55.

Wright, M., S. Thompson, and K. Robbie. 1992. “Venture capital and management-led leveraged buy-outs: A European perspective”. *Journal of Business Venturing*. 7(1): 47-71.

Wright, M., N. Wilson, K. Robbie, and C. Ennew. 1996. “An analysis of management buy-out failure”. *Managerial and Decision Economics*. 17(1): 57-70.

Yermack, D. 1996. “Higher market valuation of companies with a small board of directors”. *Journal of Financial Economics*. 40(2): 185-211.

Zahra, S. 1995. “Corporate entrepreneurship and financial performance: The case of management leveraged buy-outs”. *Journal of Business Venturing.* 10(3): 225- 247.

Zarutskie, R. 2010. “The role of top management team human capital in venture capital markets: Evidence from first-time funds”. *Journal of Business Venturing*. 25(1): 155-172.

Zhou, D., R. Jelic, and M. Wright. 2014. “SMBOs: Buying time or improving performance?”. *Managerial and Decision Economics*. 35(2): 88-102.

Zong, L. 2005. “Governance lessons from the private equity industry”. *The Journal of Private Equity*. 9(1): 63-66.

1. Value generation is defined in economic terms implicitly from any positive NPV after subtracting the entry price from the exit price. [↑](#footnote-ref-1)
2. The Internal Rate of Return (IRR) is a typical measure of fund performance. Technically, it is a discount rate: the rate at which the net present value of future cash flows from an investment is equal to zero. [↑](#footnote-ref-2)
3. A number of more recent studies find little or no performance persistence over time, aside from among the lowest performing quartile of buyout funds (Harris, Jenkinson, Kaplan, Stucke, 2014; Braun, Jenkinson, Stoff, 2017). [↑](#footnote-ref-3)
4. Loos sample concerns a specific sample of exited deals where the holding periods were merely 2.5 years. Returns eroded in more recent years and turned negative (-3%) for unrealized deals in US. [↑](#footnote-ref-4)