How Can Private Equity Firms Create Value Through Improvements in the Operating Performance?

By

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ABSTRACT

This thesis is an attempt to measure the impact that the Private Equity companies can have on their portfolio companies’ operational performance. We try to determine whether companies under LBO can over-perform listed companies in terms of operating improvements.

We firstly use Kaplan’s work (1989a) to evidence that on average, companies under LBO successfully over-perform benchmarks in the 1980s. We also present the key drivers accounting for the superior operating performance. In addition, we highlight some potential biases that may impact Kaplan’s findings.

We then examine whether those findings still hold for the most recent wake of Private Equity transactions. We find that operating improvements remain large but are in line with the industry average.

Eventually, we focus on the largest and most mature Private Equity firms that have managed to persistently generate operational improvements and study their operating business models and key initiatives to identify best practices.

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**Introduction**

Recent economic and financial crises – starting with the 2007 “subprime” crisis – have been the starting point of a debate on the financial institutions and the financial system as a whole. Banks have been subject to intense criticism, and the regulatory institutions were blamed for the lack of regulation of complex financial products as well as for their incapacity to predict the crisis.

The Private Equity industry has also been criticized. In the 2012 US campaign, Mr. Romney suffered from the Americans’ skeptical views of the Private Equity industry. An Obama campaign ad featured former steel workers criticizing Mr. Romney’s buyout of the company they worked for, GST Steel. The firm was allegedly constrained with debt, and went bankrupt while delivering profit to the owner. In Europe – and notably in France – the Private Equity industry also has had bad press. The criticism is notably led by politics. During the 2012 presidential campaign, François Hollande visited the Still-Saxby factory (property of the Kion group, whose main stockholders are KKR and Goldman Sachs). He affirmed his will to heavily regulate the LBO industry to prevent “financial companies from taking companies’ substance and selling them afterwards.” The core of the criticism lies upon the allegedly limited operational value creation enabled by Private Equity firms, which benefit from financial value creation through debt repayment and multiple effect.

Regardless of those criticisms, improvements in operating performance are of paramount importance for the Private Equity sector. The industry indeed stands at a crossroad. Acquisitions multiples are at a historically high level. They are back to their pre-recession levels and are expected to remain stable or to decrease going forward. Consequently, the Private Equity firms cannot rely as much as they used to do in the past on multiple growth. In order to create further value, they increasingly focus on operational value creation. More and more funds shift from a traditional business model with no to limited operating capabilities to a hybrid model with operating partners or to a more comprehensive model with in-house operation team.

This thesis’ objective is thus to assess the impact that Private Equity firms can have on the operating performance of their portfolio companies.
I. Definition of Value Creation in LBOs

1. Brief Overview of LBO Mechanics

A Leveraged Buyout (LBO) is the acquisition by a specialized investment firm of a company (leveraged buyout firm, or Private Equity firm), using a significant amount of borrowed money. The Private Equity firm raises equity capital through Private Equity funds, which are “closed-end” vehicles in which investors commit to a certain amount of money.

In a typical transaction, the Private Equity firm buys a majority stake of a mature firm. The transaction is usually structured as follows. The buyout is financed with 10 up to 50 percent of equity coming from one or several Private Equity funds. The remaining stake (from 50 to 90 percent) is financed through debt. The debt almost always includes a loan portion (senior and secured) but quite often a junior, unsecured pension (high-yield bonds or “mezzanine debt”). The Sponsor (a Private Equity firm) gathers the liquidities in a holding.

The acquired company or target is then fiscally integrated to the holding. The cost of debt (both “cash” and capitalized interests) can therefore be deducted from the holding’s fiscal operating income. The holding benefits from tax deductibility of the debt used to acquire the company. The target must ensure to carry out dividends towards the holding in order to service debt.

The target’s average holding period varies from three up to seven years, depending on both the Sponsor’s profile and the market conditions. During the holding period, the Sponsor supervises the target’s operations and improves operating performance. The key objective is to increase cash generation to i) ensure debt service and ii) improve profitability and enterprise value at exit. According to Kaplan and Strömberg (2009), most frequent exits over the period from 1970 to 2007 include:

- Sale to a strategic buyer, i.e. to a direct competitor looking to expand market share or obtain proprietary advantages. This scenario represents 38% of the exits;
- Sale to another Sponsor. This scenario represents 24% of the exits;
- Initial Public Offering (IPO). This scenario represents 14% of the exits.

6% of the deals ended with either a bankruptcy or reorganization. If we assume that the average holding period is six years, the annual default rate is of 1.2 percent per year, lower than the average default rate for all the U.S. corporate bond issuers over the 1980-2002 period.

2. Definition of Value Creation

An entity creates value when the rate of returns for a given investment exceeds the associated weighted average cost of capital (weighted between equity and debt).

Private Equity funds usually segment value creation in three categories:
• Category 1: value creation through debt pay down
• Category 2: value creation through multiple growth
• Category 3: value creation through improvements in operating performance

2.1. Category 1: Value Creation Through Debt Pay Down

The Private Equity fund only brings a part of the capital required for the acquisition and borrows the remaining amount from banking entities (banks or investment funds specialized in debt financing). Throughout the holding period, the target must generate cash and carry out dividends towards the holding to serve debt (both interests and principal amount).

If the enterprise value remains unchanged at exit, to the extent that the company has decreased its debt ratio, the equity value increases, which yields positive investment returns for the Private Equity firm.

\[
\begin{array}{c|c|c|c}
\text{Pre-transaction} & \text{Entry (Year 0)} & \text{Exit (Year 5)} \\
\hline
\text{Assets} & \text{Equity} & \text{Liabilities} & \text{Assets} & \text{Liabilities} \\
$100$ & $100$ & $70$ & $100$ & $40$ \\
\hline
\text{Cash flows} & $20$ & $20$ & $20$ \\
\text{Valuation multiple} & 5.0x & 5.0x & 3.0x \\
\text{IRR} & - & - & 33.9\% \\
\end{array}
\]

\textit{Source: Macabus}

2.2. Category 2: Value Creation Through Multiple Growth

Valuation using multiples is a widely used method in order to estimate enterprise value. This method consists in applying a valuation multiple to one of the company’s key financial metrics. Private Equity funds often use multiples of EBITDA (Earnings Before Interest, Tax, Depreciation and Amortization) or EBIT (Earnings Before Interest and Tax).

If both the debt ratio and EBITDA remain unchanged, multiple growth between entry and exit increases the enterprise value and therefore the equity value.
Using the valuation method described above, it clearly appears that an increase in financial results (increase in EBITDA in value) between entry and exit with constant debt ratio and multiple leads to an increase in enterprise value and consequently in the equity value.

Improvements in EBITDA can therefore derive from both improvements in revenues and in EBITDA margin. This thesis will only focus on operational value creation during the holding period, and more specifically on the impact that Private Equity firms can have.

Source: Macabus
II. The First PE Transactions Created Value Through Superior Operating Improvements

Kaplan (1989a) was one of the first academics to show that Private Equity transactions lead to superior operational improvements. His study documented quantitative evidence of such improvements and tested some drivers that can account for such over-performance.

We choose to focus on Kaplan’s paper firstly because of its impact in the academic field. Many recent papers continue to refer to it as a cornerstone and use the same methodology to bring further evidence to the question (either undermining or supporting his findings). Secondly, it is one of the most comprehensive studies on operating results for LBOs. By contrast, the recent literature has increasingly focused on the returns that Private Equity funds generate for their end investors.

In this first part, we describe Kaplan’s methodology and results. We then focus on some of the biases in the paper to bring additional evidence on the Private Equity’s impact.

1. Quantification of Operating Improvements

1.1. Sample Selection and Methodology

The studied sample consisted in 76 management buyouts completed between 1980 and 1986. Management buyouts (MBOs) are transactions that include the managers in the team of investors. The first wave of LBOs in the 1980s mostly consisted in MBOs, which explains why Kaplan focused on such subsample. Out of the 76 MBOs studied, 48 had post-buyout financial data available.

The paper measured operating performance through:

- Operating income before depreciation, defined as the profit realized from operations after the deduction of operating expenses and depreciation. To determine whether LBO companies over-perform public companies, the change in operating income is also measured net of industry changes.

- Capital expenditure, defined as the funding used by a company to acquire or upgrade physical assets. The change in capital expenditure is also measured net of industry changes.

- Net cash flows, defined as the difference between operating income and capital expenditure. The net cash flow is again also measured net of industry changes.

Kaplan reported the raw changes for the three metrics as well as the changes net of industry changes. While the raw change captures the company’s performance, it does not take into
account the economy and sector outlooks, which can significantly impact the company’s performance. The industry-adjusted change controls therefore for the economy-wide and industry effects. The industry-adjusted change helps to determine whether the LBO firms outperformed or underperformed the industry as a whole.

It is defined as follow by Kaplan: the industry-adjusted change equals “the percentage change in cash-flow variable for the buyout company minus the median percentage change over the relevant period for all firms in the same industry.” From this definition, it clearly appears that Kaplan’s objective was to include as many companies as possible in the benchmark. The listed peers include all the public companies with i) the same Standard and Poor’s SIC code as the studied LBO company and ii) a total capital value above $40 million.

1.2. The Results: Evidence of Superior Operating Performance

Kaplan evidenced that on average, companies under LBO successfully over-perform benchmarks in terms of operating improvements.

Superior Operating Income, ROA and ROS

The information collected on the 48-buyout companies firstly evidenced increases in operating income. Net of industry change, operating income remained stable during the first two years and significantly increased in the third year post buyout (24% higher).

The net of industry change in operating income corresponds to the difference between i) the change for the LBO company’s operating income and ii) the median percentage change for all the selected public companies’ operating income. As described previously, the industry sample includes all the U.S. companies with the same SIC code and a total capital value above $40 million.

<table>
<thead>
<tr>
<th>Δ Operating Income</th>
<th>Year -1 to +1</th>
<th>-1 to +2</th>
<th>-1 to +3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage change</td>
<td>16%</td>
<td>31%</td>
<td>42%</td>
</tr>
<tr>
<td>Industry-adjusted percentage-change</td>
<td>-3%</td>
<td>1%</td>
<td>24%</td>
</tr>
</tbody>
</table>

However, the Operating Income is a partially biased metric. Indeed, LBO companies tend to divest more than the industry average. In order to control for this potential bias, the results are also presented as a percentage of assets (ROA) and sales (ROS). The results confirmed that operating income results were downward biased. Companies under LBO have significantly higher return on assets (ROA) and return on sales (ROS) than their peers.

<table>
<thead>
<tr>
<th>Δ Operating Income/Asset</th>
<th>Year -1 to +1</th>
<th>-1 to +2</th>
<th>-1 to +3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage change</td>
<td>14%</td>
<td>20%</td>
<td>15%</td>
</tr>
<tr>
<td>Industry-adjusted percentage-change</td>
<td>17%</td>
<td>36%</td>
<td>21%</td>
</tr>
</tbody>
</table>
Operating Income/Sales Year -1 to +1 -1 to +2 -1 to +3
Percentage change 7% 12% 19%
Industry-adjusted percentage-change 12% 23% 35%

Decreasing Capital Expenditure

Secondly, Kaplan documented a large reduction in capital expenditures, notably relative to the industry. Results for change in capital expenditure as percentage of assets and sales are similar.

Capital expenditure Year -1 to +1 -1 to +2 -1 to +3
Percentage change -21% -21% -7%
Industry-adjusted percentage-change -36% -33% -64%

Strong Increase in Cash Flows

Finally, the strong growth in cash flows suggests that LBO successfully over-performed the industry. The magnitude of change is consistent with increased value creation.

Cash Flows Year -1 to +1 -1 to +2 -1 to +3
Percentage change 41% 59% 96%
Industry-adjusted percentage-change 22% 43% 81%

Kaplan was among the first academics to provide strong evidence of improvements in operating performance for companies under LBOs. He showed that improvements are large and exceed those of public companies. Other papers confirmed those findings. As an example, Smith (1990) also investigated the changes in operating performance after management buyouts of 58 publicly held corporations completed between 1977 and 1986, using Kaplan’s methodology. He also documented significant changes in operating returns attributable to the MBOs: “My evidence of operating gains after management buyouts is consistent with related evidence in […] Kaplan (1989a).”

2. What Drives PE’s Superior Operating Performance?

2.1. Hypotheses Tested

The paper also tested hypotheses on the causes of the operating improvements. Building on the literature of the early 1980s, it focused on a set of three hypotheses:

- Hypothesis 1: Employee-wealth-transfer
This hypothesis derives from Shleifer and Summers (1988). Their paper hypothesized that hostile takeovers do not create but redistribute value. Those takeovers consist in a transfer of wealth from the stakeholders to the new shareholders.

In a world without takeovers, potential stakeholders believe that managers will respect their claims and enter into long-term contracts with the firm. According to the paper, following a hostile takeover, the new shareholders breach an implicit contract that bonded the previous shareholders with the stakeholders (employees, suppliers, etc.). For example, a sub-contractor exploring for oil will invest in site-specific equipment only if he believes that the contracting firm will engage in a long-term contract and will not try to squeeze the profits once he sinks the costs. Similarly, employees may accept the terms of their contracts (notably lower levels of compensation) because they have been promised lifetime employment. The new shareholders appoint new managers who renegotiate the contracts’ terms. New shareholders get more favorable terms, at the expense of the other stakeholders.

Contract breaches that accompany hostile takeovers therefore enable a redistribution of rent from stakeholders to shareholders. Shareholders capture the rents from contracts with stakeholders, such as suppliers and employees. Rather than value creation, Shleifer and Summers referred to this mechanism as a wealth transfer. A large extent of the premium takeover would thus consist in this transfer.

Going one-step further, the paper suggested that this transfer described might entail large efficiency losses on the long run. Managers worried about hostile takeover could engage in expensive defensive tactics. However, the study provided little to no evidence of decreases in efficiency.

• **Hypothesis 2: Information-advantage or underpricing**

This hypothesis derives from Lowenstein (1985). Focusing on MBOs, Lowenstein argued that management benefit from private information (e.g. higher cash flows than expected by the markets going forward, new projects). It enables them to buy the company for less than another bidder with similar information would pay. If accurate, this theory would account for the large improvement in operating performance after the buyout.

• **Hypothesis 3: Reduced-agency-cost or new-incentive:**

Jensen (1986, 1988) suggested that buyouts provide managers with powerful incentives to increase efficiency and value. Firstly, the burden of the debt forces managers to generate cash flows to service debt and avoid wasting resources. In addition, managers are incentivized through equity stakes. Finally, the Private Equity fund collaborates with the firm, which significantly increases stakeholders’ alignment. This theory predicts that
the new incentives lead to increase cash flow through margin improvement and reduction in wasteful capital expenditure.

2.2. Evidence Favor New Incentives and Reduced Agency Costs to Be Key Drivers

Kaplan’s paper tested the three hypotheses detailed above to determine what causes the operating improvements. The results favored the reduced-agency cost or new-incentive hypothesis over the two other hypotheses as main driver of gains in operating performance.

i) Kaplan’s study found no evidence of layoffs being a major source of buyout gains

Employee-wealth-transfer hypothesis suggested that hostile takeovers transfer value by breaking implicit contracts between previous shareholders and stakeholders. Contracts are broken through i) layoffs and ii) reduced wages.

The study focused on the first point, i.e. layoffs. For the sample of the 48-buyout companies, the median change in employment was 0.90%. However, employment in the industry grew by 12% more than in the sample. Those results suggest that layoffs were not the primary source of operating gains. However, the results also show that LBO companies create fewer jobs than their peers.

In addition, due to limited data availability, the paper could not test two important parameters. Firstly, it could not account for changes in the composition of employment (e.g.: laying-off senior employees and replacing them with new employees can dramatically decrease wage cost and yield significant gains). Secondly, buyout company wages were not available. Hence, there is no evidence favoring or rejecting the reduced wage assumption.

More recent literature has also addressed the very debated issue of job and wage cuts in companies under LBO. Davis, Haltiwanger, Jarmin, Lerner, and Miranda (2011) study used a sample of 3,200 U.S. LBO companies and their 150,000 establishments from 1980 to 2005. The study documented a 3% decline in employment over two years and 6% over five years. The employment declines were concentrated in the service and retail sectors, and relatively limited in the manufacturing sector. In addition, they were concentrated in a specific type of transactions, namely the public-to-private buyouts. However, LBO firms reallocated jobs across the establishments more rapidly than the industry average. New jobs were created in new establishments, acquisitions and divestments of establishments occurred more rapidly. As a consequence, net job losses were less than 1% of the initial employment. The study therefore concluded that the Private Equity firms accelerate “the creative destruction process in the labor market, with only a modest net impact on employment”. The huge perceived job losses are due to accelerated job reallocations for firms under LBO.

As a conclusion, based on Kaplan study and more recent literature, it appears that layoffs are not a key driver of improvement in operating performance in LBO firms. However, job creation is limited and even negative for some industries (service and retail sectors) and job reallocation
is accelerated. The impact of the changes in composition of employment and wages are yet to be determined.

**ii) Information-advantage or underpricing hypothesis is not consistent with Kaplan’s findings**

The paper showed strong evidence to reject the underpricing assumption. Firstly, it showed that a significant number of managers holding shares in pre-buyout company did not participate in the buyout. On average, management non-participants held 13% of total shares in the pre-buyout company, to be compared with 12% for management – MBO participants. If the management knew that the company was underpriced, everyone would commit to the buyout. We could argue that perhaps only top managers knew the company was underpriced. However, this assumption also does not hold. The paper showed that in 25% of the studied MBOs, the chairman or the CEO left the company. In all those cases, the executives had approved the buyout, either by tendering their shares or by voting in favor of the operation. The high turnover ration of C-suite is not consistent with the underpricing hypothesis playing a large role.

A second piece of evidence revolves around market competition. The managers and investors who led the studied LBOs faced an active market for the corporate control: management lost control in 28% of the MBO bids. This competition limits the degree of underpricing.

Third, actual performance in those LBOs did not exceed financial projections. If managers benefited from information-advantage, they could mislead the public shareholders by providing downward-biased estimates. However, the management forecasts were aligned with the financial results.

In conclusion, the information-advantage or underpricing theory is inconsistent with the paper’s findings. We believe that this affirmation still holds today. The market for corporate control is notably becoming more and more competitive, which further limits the degree of underpricing.

**iii) Kaplan’s study found incentive changes are positively correlated with buyout gains**

The study presented indirect evidence regarding the new-incentive hypothesis. The study examined the change in equity stake of the management team pre- and post-buyout. According to Kaplan, “if efficiency and incentive considerations are important, the principals [who determine the equity stake of the agents in a buyout] will offer equity stake to these agents”. The equity stake increased from a median of 6% for the pre-buyout management team to 23% for the post-buyout management team.

We observe a shift in the distribution of the equity ownership pre- and post- LBOs. The redistribution seemed to favor junior managers. The median increase in percentage of equity owned by the top two managers is 4%. This is to be compared with a median increase of 10%
for all managers excluding the two top managers. This seems to suggest that LBOs favor new incentives for junior managers.

In conclusion, the paper evidenced a strong correlation between equity stake and improved performance. However, there is no evidence that incentive changes drive improvements in performance. To say it differently, incentive can either be the consequence or the cause of operational value creation. Though not conclusive, this study supports the driving role of incentive in operating performance.

To confirm such findings, we examined other papers. Throughout literature, other academics have emphasized the role of increased managerial incentive in improvements in operating performance. Jensen (1989) notably argued that LBOs create value through high leverage and powerful incentives. Significant incentives make management be prone to cash-flow diversion and averse to taking on high levels of risk. We focused on Leslie and Oyer’s work (2009). The academics highlighted that “Managers as owners is a pillar of the PE approach.” They acknowledged the strong contribution of “Kaplan (1989a) [who] first documented differences in the share of CEO equity ownership” between LBOs and publicly listed companies. The study offered more recent data (during the 1996 to 2006 period) on the question. They further evidenced the gap in managerial incentives between LBO companies and publicly owned companies. The CEO of a company under LBO owned close to twice as large a share of the firm, earned 10% in base pay and received a significantly higher share of his cash compensation through variable pay. Consistently with Kaplan (1989), the study also noted higher profitability, which suggested that stronger incentives might mitigate agency problem. Again, the paper cannot evidence a cause-effect relationship, but only a correlation between operational improvements and higher incentives leading to lower agency cost.

To conclude, this paper offered credible evidence of superior operating improvements for a specific type of LBOs, namely MBOs. In addition, it corroborated the idea that reduced agency cost or new incentive may drive operating gain. Although there is today a large consensus on those findings, the paper is still not without its critics. In the section 1. 3., we will try to highlight some of its potential biases.

3. Overview of Potential Biases

In this section, we focus on what we believe to be three potential biases of Kaplan’s work. They consist in i) the sample selection, which consists in companies with publicly available financials, ii) the benchmark used and iii) the timeframe – Kaplan does not measure the gains observed on the long run.

3.1. The Sample Selection Bias

Bias Description

It is important to notice that the study relied on a partially biased sample. Kaplan only collected data from companies with public financial information. Those companies are usually either
exited through initial public offering (IPO), or finance their debt on financial markets. This specific sample can be biased in two ways:

- First possible bias: LBO firms exited through IPOs may be over-performers and cause the documented improvements to be overestimated. The sample may indeed include atypically successful buyouts if buyouts professionals and managers in the most successful buyouts sell their shares through IPOs.
- Second possible bias: companies with public financial information as a whole may be on average in better financial health and over perform LBO companies which do not disclose financial information.

In his paper, Kaplan focused exclusively on the first bias, i.e. a potential over-performance of LBO companies going through IPOs. To test it, the academic divided the sample into two groups:

- Companies for which filings were required: the first group (referred to as the 10-K companies) consisted in companies with public debt held immediately after the buyout.
- Company for which filings were voluntary: the second group (referred to as the IPO companies) consisted in companies that did not have publicly held debt at the buyout. Those companies filled financial information, generally to go through IPO.

The release of post-buyout information could be a signal of abnormal performance for the second group (either superior or inferior). If the sample selection bias were significant, the second group should perform differently from the first group.

Based on Kaplan’s work, the results are significantly different for the two groups at the operating income level. The IPO companies showed larger increases in operating income. This suggests that that firms exiting through IPOs over perform other LBO companies with public information. However, when looking at the cash flows, the difference is still positive for the IPO companies but not statistically significant.

Kaplan concluded that if a selection bias existed for the IPO companies, it was not statistically significant. Companies going through IPOs do not evidenced superior cash flow generation relative to the rest of the sample. We believe that these findings do not offer strong evidence to reject the sample selection bias. Firstly, change in operating income was indeed significant. Secondly, due to lack of data, Kaplan could not compare RLBOs’ performance relative to LBO companies without public information. Therefore, there is thus no evidence favoring or undermining the over-performance of LBO companies with public information vs. those without it.

**An Alternative Approach: Using Federal Corporate Tax Returns**

To further test the sample selection bias, we relied on Cohen, Mills and Towery’s work (2013). The paper offered an innovative solution to overcome the lack of data: it relied on confidential federal corporate tax returns. Because such files are mandatory for all U.S. corporations, their
sample was more representative of the overall situation. The academics focused on 317 U.S. LBOs taking place between 1995 and 2007.

Overall, they found little evidence of operating improvements for LBO companies. Both median and average pre-interest return on sales (ROS) and return on assets (ROA) are flat from the two years before to the three years after the LBOs. Such results completely disagree with most of the papers – and notably Kaplan (1989a) – that relied on public available information and documented substantial improvements.

To further strengthen their results, Cohen, Mills and Towery (2013) focused on a subsample consisting in firms with public financial information. For this specific subgroup, they documented significant improvements in operating performance. From the year before the LBO to two years after, mean and median ROS increased respectively by 9% and 4%. Those results are net of industry-changes.

Over-performance of companies with public information available, combined with the lack of operating improvements for LBOs more generally, suggest that LBO targets with public information may be outliers. Using public financial information to generalize on operating improvements in LBOs may therefore be difficult.

3.2. The Benchmark Bias

Bias Description

A second challenge faced here is the benchmark bias. The improvement in the company’s performance is measured by change in the company’s performance minus the change in industry’s performance. However, part of the improvement in operating performance of the company may not be driven by the LBO itself.


Building on that, Waldfogel (1994) offered an innovative approach to define an appropriate benchmark. He assumed that not all operating gains generated by the LBO companies during the holding period were due to the LBO itself. Assuming that the studied firm follows a cyclical pattern and is bought at a below-the-average performance, the mean-reversion is expected to occur independently to the buyout.

He thus subtracted from the industry-adjusted performance the part of the change in performance that was expected to occur prior to the buyout. The remaining change, referred to as restructuration surprise, captures the genuine impact of the LBO. Such methodology indeed provides an improvement over conventional approach. However, the two main caveats are i) higher complexity and ii) potential subjectivity.

Although the methodology differs, the output remains unchanged. Waldfogel also supported the view that MBOs enhance operating performance. Performance improvement increased by
6.8% over the first year and by a range of [11.5-21.4%] and [20-30%] respectively for the second and third years.

In conclusion, this alternative approach offers a more credible benchmark but display results that are overall in line with those described by Kaplan (1989a).

3.3. The Timeframe Bias

Are the Improvements in Operating Performance Sustainable on the Long Run?

Private Equity’s holding period is relatively limited. Most studies, including Kaplan’s, focus on the improvements achieved within three years. Those improvements notably rely on decreased capital expenditures that have positive impacts on the cash flows on the short run, but may impact performance on the long run. One of the largest criticisms of PE firms revolves around their shorten vision that would harm the long-term performance. The decline in capital expenditure documented in many studies raises the possibility that LBOs may have significant positive impact on cash flows on the sort run, but a negative impact over a longer period of time.

Two Additional Papers on the Question

Two recent studies assessed the long-term impact of these improvements. Both tend to evidence that LBOs also have positive impact over a longer period of time.

- Cao and Lerner (2007) studied the performance of LBOs companies after they have gone through an initial public offering. They studied a sample of 496 Reverse Leveraged Buy-Outs (RLBOs) – IPOs of firms that had previously been under LBO – between 1980 and 2002. They evidenced that RLBOs continued to outperform the market generally.

They documented that the RLBOs over-performed the market in terms of returns by between 0.4% and 0.6% per month in the five years after the offering. Similar results hold for the ratio of net income to assets, which is 0.95% above the industry.

- Lerner, Sorensen and Strömberg (2008) studied post-buyout changes in innovation by focusing on the number of patents. They documented that there was no evidence of a significant decline in post-buyout innovation or patenting. In addition, patents filled post-buyout were more economically important than those filled pre-buyouts. Those findings show that LBO firms continue to innovate and that the capital may be spent more efficiently.

However, such sample may not be representative of the LBO companies as a whole. Indeed, relatively few companies under LBOs engage in patenting (this specific type of companies tend to have more volatile cash flow and thus do not represent the ideal target for Private Equity firms).
From this section, it appears that the sample selection used may be a critical bias. Cohen, Mills and Towery's innovative approach offered convincing evidence suggesting generalizing from operating improvements around LBOs relying only on firms with public data might be difficult. Let aside firms with financial public data (over-performers) and distressed firms ("loss" firms which tend to mean-revert), the operating improvements evidenced may not be as significant as expected for the average LBO.

Section II evidenced that the first wake of LBOs yielded significant operating gains. Those gains were on average documented to be large and superior to the industry average. Although there is little evidence on the subject, the literature seems to corroborate that the superior operating gains were driven by reduced agency costs or increased incentives. On the operating side, it involved significant asset rationalization and led to significant improvement of ROA and ROS ratios.
III. Only a Small Fraction of Recent PE Transactions Continue to Generate Superior Operating Improvements

Kaplan (1989a) focused on MBOs during the 1980s. Most academics agreed to acknowledge the large value creation generated by superior operational improvements vis-à-vis the industry in the 1980s. However, the recent research on the question is far less conclusive. In this third section, we first try to assess the degree of operating improvements in the more recent period for the Private Equity industry as a whole. Secondly, we focus on a specific subsample, consisting in the largest and most mature Private Equity firms.

1. Operating Improvements Remain Large But Are in Line With the Industry

Leverage Buyout activities have been highly cyclical over the last three decades. They emerged as an important phenomenon in the 1980s. The volume and size of LBOs operations increased significantly during this decade, leading Jensen (1989) to predict that LBOs would become the dominant corporate organizational form. This prediction was indeed overly optimistic. Following the junk bond market crash few years later, the Private Equity industry contracted significantly. It was only in the mid-2000s that the industry really recovered, with a second leveraged buyout boom. The industry reached a peak in 2006 and 2007, before declining again with the turmoil in debt markets in 2008.

Most of the evidence of operating improvements was documented in the 1980. Are there still significant opportunities to improve operations?

1.1. Do Buyouts Still Create Operational Value?

Value Creation in Recent Private Equity Operations

We relied on PitchBook dataset to get an overview of the U.S. Private Equity landscape in the most recent years. We focused exclusively on the U.S. based buyout funds with a size exceeding $100 million over a period ranging from 2000 to 2012. Over this period, fundraising activities have been highly cyclical. Fewer funds were raised after the 2001 and 2007 crisis. The Fund size however remained overall stable during the period, ranging from $330 to $500 million. The median fund size over the period was $413 million.
However, the returns over the period have varied greatly. Over the 2000 to 2012 period, the median IRR was 12%, ranging from 8% (vintage 2005) to 16% (vintage 2002). The changes in returns for the top quartile are overall in line with those of the whole industry.
The returns display a very high volatility over the period. We believe that this volatility is highly correlated with the changes in EBITDA multiple. Indeed, the EBITDA multiple showed similar high volatility over the period. The average multiple of EBITDA\(^1\) was respectively 6.1x and 6.5x in 2001 in 2002, to be compared with 8.6x and 9.8x five years after in 2006 and in 2007. This suggests that a large part of value creation was due to multiple growth during those years.

To further test this hypothesis, we compared the change in EBITDA multiple and returns. We relied on simple assumptions. The variation in EBITDA multiple presented below corresponds to the difference between the multiple five year after the vintage year and the vintage year multiple. We thus assumed that all portfolio companies are invested in in year 1 and exited after a holding period of five years.

### Change in EBITDA multiple and IRR

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Δ EBITDA multiple</td>
<td>1.1x</td>
<td>2.1x</td>
<td>2.1x</td>
<td>2.7x</td>
<td>2.1x</td>
<td>-0.3x</td>
<td>-0.1x</td>
<td>-0.7x</td>
<td>-0.6x</td>
<td>0.9x</td>
<td>0.6x</td>
</tr>
<tr>
<td>IRR Median</td>
<td>12%</td>
<td>16%</td>
<td>16%</td>
<td>15%</td>
<td>11%</td>
<td>8%</td>
<td>8%</td>
<td>10%</td>
<td>13%</td>
<td>16%</td>
<td>12%</td>
</tr>
<tr>
<td>IRR 75th</td>
<td>21%</td>
<td>25%</td>
<td>24%</td>
<td>24%</td>
<td>17%</td>
<td>12%</td>
<td>14%</td>
<td>16%</td>
<td>18%</td>
<td>22%</td>
<td>19%</td>
</tr>
</tbody>
</table>

*Source: PitchBook, S&P Capital IQ*

From this table, it appears that EBITDA multiple growth is clearly positively correlated with IRR. For the funds raised between the vintages 2005 to 2008, for which the EBITDA multiple decreased, both the IRR Median and IRR 75\(^{th}\) reached historically low points. Those results clearly suggest that value creation was primarily driven by multiple growth during the period.

**Are Operating Improvements Still a Key Driver of Value Creation?**

Guo, Hotchkiss and Song (2009) examined whether the most recent wave of public to private transactions was still creating operational value. They selected a sample of 192 buyouts completed between 1990 and 2006 with an enterprise value over $100 million. They relied on a subsample of 94 leveraged buyouts for which post-buyout financial data were available. Here again, it is important to notice that there might be a sample selection bias, as discussed in section II.3.1. Similarly to Kaplan’s work, such study may overestimate the operating improvements if Reversed Leveraged Buyouts (RLBOs) are out-performers. However, as we are trying to compare the results documented in the 1980s with those in the most recent wake of PE transactions, it is indeed required to use the same methodology.

The paper first examined the relative importance of each value creation lever. The results are shown in the table below. The table shows that gain in operating performance accounts for a significant part of the value creation.

---

1 EBITDA of more than $50 million
<table>
<thead>
<tr>
<th>Lever</th>
<th>Metric used</th>
<th>% Pre-buyout returns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improvements in operating performance</td>
<td>Changes in operating cash flows</td>
<td>33%</td>
</tr>
<tr>
<td>Rising market or industry sector valuation multiples</td>
<td>Change in valuation multiples (Capital/EBITDA)</td>
<td>26%</td>
</tr>
<tr>
<td>Increased leverage (tax shield)</td>
<td>Realized tax benefits from increasing debt while private</td>
<td>41%</td>
</tr>
</tbody>
</table>

Operating improvements is indeed an important driver of value creation. However, increased leverage, amounting to 41% of returns, took precedence over operating improvements (33%) during the period.

The paper then tried to determine whether companies under LBO still manage to generate superior operating improvements vis-à-vis the industry as a whole. The paper documented that the returns were still large and positive. However, the companies under LBO did not beat the benchmarks. Indeed, industry-adjusted changes in operating performance are significantly smaller than reported by Kaplan (1989a) for the MBOs in the 1980s. The chart below compares percentage gains in industry adjusted EBITDA/assets, with those documented by Kaplan.

**Percentage gains in industry-adjusted EBITDA/assets relative to year -1**

<table>
<thead>
<tr>
<th>Year -1 to +1</th>
<th>-1 to +2</th>
<th>-1 to +3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaplan, 1989a (industry adjusted)</td>
<td>17%</td>
<td>36%</td>
</tr>
<tr>
<td>Guo, Hotchkiss and Song (industry adjusted)³</td>
<td>7%</td>
<td>3%</td>
</tr>
<tr>
<td>Guo, Hotchkiss and Song (industry &amp; performance adjusted)⁴</td>
<td>6%</td>
<td>8%</td>
</tr>
</tbody>
</table>

This study evidenced that recent LBOs’ returns were still large and positive. However, operating improvements were either comparable or slightly exceeded benchmarks. Other studies confirmed those findings. Leslie and Oyer (2008) notably found little evidence of increased

² Pre-buyout returns are calculated just prior to the buyout to the exit.
³ The methodology used is similar to that of Kaplan (1989a): “The industry median adjusted performance provides the most direct comparison to prior research (Kaplan (1989a)), using firms in the same four-digit SIC code.”
⁴ The methodology is also similar to that of Kaplan. The difference lies in the size of the benchmark. They only selected 5 matching companies with the smallest difference in terms of pre-buyout performance, change in performance pre-buyout, and market to book ratio of assets.
profitability or better operating efficiency for 144 U.S. LBO target between 1990 and 2006, relative to public companies.

1.2. What Causes PE’s Operating Performance to Decline Relative to the Industry?

While LBOs in the 1980s yielded superior operating improvements vis-à-vis the industry, the most recent LBOs do not beat the benchmarks anymore. To account for the declined performance of LBO firms, we present a set of three hypotheses.

1) **Hypothesis 1: Standard Bottom-Line Initiatives Are Now Widely Implemented Throughout the Industry**

The operating gains generated by LBO companies in the 1980s were notably driven by rationalization plans, which positively impacted ROA. We believe the degree of rationalization was larger in privately held companies at that time. In the more recent period, publicly held companies may have caught up. The relentless focus on cost cutting and rationalization following the recent economic crisis by public companies may have reduced the efficiency gap between private and public companies.

2) **Hypothesis 2: Growth Multiple and Leverage Have For Long Driven Value Creation, Leading Private Equity Professionals to Neglect Operating Improvements**

As previously discussed, leverage and multiple growth have largely driven value creation until the 2007 world economic crisis. During this bonanza period, the Private Equity professionals may have partly neglected operations, which resulted in a decline in operating performance relative to listed companies. If this second hypothesis is valid, we should expect their performance to improve now that the multiple and leverage levers are less likely to drive value creation.

PE professionals’ renewed focus on operating improvement seems to corroborate this assumption. When asked whether operational improvements are more important now than pre-crisis, respectively 39% and 31% of the PE professionals surveyed strongly agreed and somewhat agreed. An executive notably said: “Financial arbitrage is dead”, while another respondent noted “Exits have proven more difficult for companies that have not been ‘operationally upgraded’.”

However, the current increased focus on operating improvement may consist more in a marketing argument than in a genuine paradigm shift in the industry. EY’s Study of 2013 European exits offers a great outlook on how the Private Equity firms create value. It notably segmented the equity multiple on PE exits by sources for the period from 2005 to 2013.

---

5 The Deal and Pepper Hamilton LLP survey, April 2014 – 120 Private Equity professionals were interviewed on Private Equity outlooks
It clearly appears that the value creation deriving from operational improvements has not increased significantly in the recent years. The operational improvement is the most stable driver of value creation based on this study. However, it has decreased following the crisis. Those findings are inconsistent with our hypothesis: the out-performance in term of operating improvements has not increased following the world economic crisis, in spite of PE professionals’ renewed focus.

3) **Hypothesis 3: Buyouts From the Earlier Period Involved Firms with More Upside Potential**

A third hypothesis would be that the buyouts from the earlier period involved firms with relatively poor pre-buyout performance. On the contrary, the recent wake of Private Equity transactions involves firms that have already undergone LBOs and are thus already rationalized. Consequently, there would be fewer “quick-wins” in terms of operating improvements. The chart below shows that the number of secondary LBOs has increased from 9% to 34% of the share of deals between 2006 and 2012.

*Source: EY, How do private equity investors create value?*
The growth of secondary LBOs is partly driven by more difficult traditional exit forms. As the buyout market matures, tertiary and fourth times around deals are now observed. These transactions raise questions regarding the potential for performance improvements. However, there is still little research on whether secondary LBOs successfully manage to further improve operations.

Recent rationalizations in public companies (hypothesis 1) and Private Equity market maturity (hypothesis 3) are the two most credible hypotheses explaining the decline in PE over-performance relative to the industry. Those two hypotheses suggest that LBO targets have successfully optimized their businesses by implementing standardized initiatives. The Private Equity industry must seek new types of initiatives to continue over-performing.

1.3. To Continue Over-Performing, LBO Companies Must Implement New Initiatives

To further fuel operating improvements, we believe that LBO companies must focus on top-line initiatives. While bottom-line optimizations have been largely implemented, revenue growth lever is still largely untapped. We hypothesize that these initiatives could help LBO companies continue over-performing benchmarks.

The recent literature partly corroborates this assumption. Boucly, Sraer, and Thesmar (2008) evidenced that in the recent years, French LBO targets’ profitability growth was driven by growth opportunities. LBO targets grew significantly more than their industry peers, both in terms of jobs and assets. Between the three years preceding the deal, and the four first years, excess job grew by 13%. In addition, asset and sales grew by respectively 11% and 13%. The academics noted: “These last results stand in sharp contrast with the findings of Kaplan [1989], who finds that the post-LBO increase in profitability stems from a decrease in assets.” According to the study, increased profitability was driven by new growth opportunities.
Top-line initiatives, as well as more innovative bottom-line initiatives, may offer strong upside potential. However, they are more difficult to deploy. Indeed, they are not as standardized and require more time to deliver results. We therefore believe that such initiatives can only be implemented by larger and more established Private Equity firms. We hypothesize that those initiatives are partly already deployed in the largest and most mature Private Equity firms, and that they must yield higher operating improvements.

2. Focus on The Largest and Most Mature Private Equity Firms

In section III.1.3., we hypothesized that the largest and most mature PE firms generate higher returns through higher operating gains. To corroborate this hypothesis, we must establish a positive correlation between the two variables.

To test it, we relied on Acharya, Gottschalg, Hahn and Kehoe’s paper (2012), which focused on the largest and most mature PE firms. It relied on a sample of 395 deals from 48 funds covering two decades (1991-2008). The funds all consisted in large, mature European PE houses targeting companies with an enterprise value over €50 million. However, the researchers provided very few details on the funds themselves. The sample, consisting of the largest and most mature PE funds, has a high mean gross IRR (56%). The results are reported for the entire sample over entire time period, which prevents us from studying changes over time and by country.

2.1. Evidence of Superior Returns

The paper evidenced that only mature and large PE houses significantly outperformed the S&P500 in returns post management fees. The median performance was 150% of the S&P500 and the mean was close to 170%. Furthermore, this over-performance was persistent over time.

2.2. Evidence of Superior Operating Performance

The study focused in a second step the operating improvements. In order to quantify the operating performance in mature Private Equity firms, the paper distinguished the impact during and after the LBO. The results are presented net of industry changes.

- The operating performance during the LBO is captured by
  - The changes in sales (first variable – defined as operating revenues resulting from "ordinary operating activities"), measured with the logarithm function
EBITDA margin (second variable – EBITDA/Sales). It is worth noting that rather than using EBITDA margin, the academics could have relied on ROA. The latter better measures because it accounts for investment required to generate profits. Due to lack of data on ROA, we present here the results for the EBITDA margin.

The abnormal operating performance after the LBO period is captured by the EBITDA multiple at exit (third variable)

<table>
<thead>
<tr>
<th>Δ log sales (mean)</th>
<th>Pre-PE ownership</th>
<th>During-PE ownership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage change</td>
<td>5.9%</td>
<td>7.9%</td>
</tr>
<tr>
<td>Industry-adjusted percentage-change</td>
<td>-0.7%</td>
<td>0.42%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Δ EBITDA margin (mean)</th>
<th>Pre-PE ownership</th>
<th>During-PE ownership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage change</td>
<td>0.1%</td>
<td>1.4%</td>
</tr>
<tr>
<td>Industry-adjusted percentage-change</td>
<td>-0.2%</td>
<td>1.0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Δ EBITDA multiple (mean)</th>
<th>During-PE ownership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage change</td>
<td>1.3x</td>
</tr>
<tr>
<td>Industry-adjusted percentage-change</td>
<td>1.0x</td>
</tr>
</tbody>
</table>

The study documented that for the largest and most mature Private Equity firms, the operating performance during the LBO is significant and superior to that of the industry. It is primarily driven by EBITDA margin improvement. Indeed, sales growth, in spite of its significance (7.9% for log sales during the LBO period), is in line with the sector performance (7.5%). Here again it is worth noting that ROA would have been a better metric to study. We have no evidence for what really drives the EBITDA margin improvements. As the paper does not document the ROA improvements, it is hard to determine whether the improvement is primarily driven by investments or cost cutting for example.

2.3. Financial Performance Is Driven by Operating Performance

The third step of the paper consisted in investigating the correlation between superior returns and operating performance. The researchers regressed financial performance on the increases in sales, EBITDA margin, and EBITDA multiple. Based on the regression’s results, the study concluded that out of the three variables measuring operating performance, the two that have been significantly improved (EBIDTA margin and EBITDA multiple at exit) also appear to drive abnormal financial performance.

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6 EBITDA is equal to Operating revenues – COGS – SG&A – Other (notably including R&D)
7 Difference from two-years pre-PE-ownership to last pre-PE-ownership year
8 Difference from last pre-PE-ownership year to last PE-ownership year
Dependent variable: Financial Performance in %

<table>
<thead>
<tr>
<th>Independent variable</th>
<th>Coefficients</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Δ EBITDA margin</td>
<td>1.94</td>
<td>*** (0&lt;p&lt;0.01)</td>
</tr>
<tr>
<td>Δ EBITDA multiple</td>
<td>2.23</td>
<td>*** (0&lt;p&lt;0.01)</td>
</tr>
<tr>
<td>Δ log sales</td>
<td>0.44</td>
<td>** (0.01&lt;p&lt;0.05)</td>
</tr>
</tbody>
</table>

The results showed that a 1% improvement in EBITDA margin resulted in an increase by roughly 1.9% in financial performance. A growth of 1.0 in multiple between entry and exited resulted in an increase by 2.2% in financial performance. Those results corroborated our first assumption (higher operating gains for companies bought by the largest and most mature PE firms).

In conclusion, the largest and most mature PE funds create significant value through operational improvements. The operating gains are higher than for the quoted peers. Although operating improvements may not be as significant as in the 1980s for the whole Private Equity industry, the largest and most mature PE funds persistently manage to out-perform both benchmark and other funds.

In the last part, we will focus on the largest and most mature Private Equity firms’ operations. We will further study their different business models to try and understand what drives their operational over-performance.
Summary tables of valuation creation documented in the studied academic papers

In the tables below, we present some key findings evidenced in the literature. We only focus on studies that showed the change in ROA during the three first years post-buyout (t+1, t+2 and t+3) vs. the last year before the buyout.

### Documented change in ROA

<table>
<thead>
<tr>
<th>Author</th>
<th>Sample</th>
<th>Time period</th>
<th>Geography</th>
<th>Value creation documented</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Δ ROA (mean)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Ind.-adjusted ROA (mean)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Δ ROA</td>
</tr>
<tr>
<td>Kaplan</td>
<td>76 delisted companies</td>
<td>1980-1986</td>
<td>U.S.</td>
<td>14%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>20%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>15%</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td>17%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>36%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>21%</td>
</tr>
<tr>
<td>Guo et al.</td>
<td>48 buyouts with public financial information</td>
<td>1990-2006</td>
<td>U.S.</td>
<td>-11%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-17%</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>-16%</td>
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<td></td>
<td>7%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-4%</td>
</tr>
<tr>
<td>Cohen et al.</td>
<td>317 previously publicly traded firms acquired in LBOs[^1]</td>
<td>1995-2007</td>
<td>U.S.</td>
<td>0.8%</td>
</tr>
</tbody>
</table>

### Documented sources of value creation

<table>
<thead>
<tr>
<th>Author</th>
<th>Sources of value creation</th>
<th>Operational improvements</th>
<th>Multiple growth</th>
<th>Financial structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guo et al.</td>
<td></td>
<td>33%</td>
<td>26%</td>
<td>41%</td>
</tr>
<tr>
<td>EY (2005-13)</td>
<td></td>
<td>38%</td>
<td>32%</td>
<td>30%</td>
</tr>
<tr>
<td>Acharya et al</td>
<td></td>
<td>34%</td>
<td>50%</td>
<td>16%</td>
</tr>
</tbody>
</table>

[^1]: For RLBOs, Cohen et al. only present ROS change, which mean is equal to 7% (-1 + 1), 5.7% (-1 + 2) and 4.9% (-1 + 3). This is to be compared with the changes documented by Kaplan for firms with public information: 12% (-1 + 1), 23% (-1 + 2) and 35% (-1 + 3).
IV. Identifying Key Success Factors to Improve Operating Performance in PE Transactions

In section III, we showed that the operating over-performance documented for the LBO firms in the 1980s relative to the industry is not significant in the most recent transactions. Only a fraction of PE firms still manage to successfully over-perform benchmarks. Mature and large Private Equity houses are among those. In this section, we examine the different business models as well as the various initiatives they have set up.

We believe that using the appropriate operating business models will be critical for PE firms in the coming years, as operating improvements will become increasingly important. Tougher market conditions will indeed limit value creation through multiple arbitrage. In addition, financial engineering and leverage may have less impact going forward. The FED decision to increase rates is now widely anticipated and may limit the debt market liquidity, notably for small to medium transactions.

1. The Challenge of EBITDA Growth

To estimate the EBITDA growth required to get a 25% internal rate of return in the current market conditions, we relied on a simple LBO model. The assumptions are detailed below.

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entry EBITDA multiple</td>
<td>8.5x</td>
<td>Average in Europe, 2014(^9)</td>
</tr>
<tr>
<td>Exit EBITDA multiple</td>
<td>8.5x</td>
<td>Conservative assumption</td>
</tr>
<tr>
<td>Debt Multiple (/EBITDA)</td>
<td>4.5x</td>
<td>Average in Europe, 2014</td>
</tr>
<tr>
<td>Interest rate</td>
<td>LIBOR + 400 bps</td>
<td></td>
</tr>
<tr>
<td>Capital expenditure</td>
<td>2.5% of net revenue</td>
<td></td>
</tr>
<tr>
<td>Tax rate</td>
<td>26%</td>
<td>Assuming all-cash tax rate</td>
</tr>
<tr>
<td>Improvements in NWC</td>
<td>0</td>
<td>Conservative assumption</td>
</tr>
</tbody>
</table>

Based on such model, EBITDA growth rate must be of 11% CAGR (assuming a five-year holding period). As comparison, the only recent period in which the S&P500 index surpassed such growth rate five years in a row was in the five-year period ending in 2007. Such growth rate is incredible challenging to reach five years in a row, given the current economic context.

\(^9\) Source: S&P Capital LCD, for companies with EBITDA of €50 million
Furthermore, Private Equity's ability to create value through operations will depend less on bottom-line initiatives. Indeed, the recent economic crisis has forced many companies to operate cost-reduction initiatives. Moreover, the rise of secondary LBOs suggests that those businesses have already been rationalized. Consequently, there will be fewer “quick wins” available through cost cutting.


The recent literature has extensively studied the different business operating models implemented by Private Equity firms. In 2012, the Boston Consulting Group notably published a report, entitled Private Equity: Engaging for Growth. The study focused on six operating models used by the largest and most mature Private Equity firms, as well as the operating initiatives associated with those. In this part, we rely on these findings in order to determine what are the best business models to increase operational gains.

2.1. Model 1: Private Equity Firms with no Internal Capabilities

Those firms have not developed internal capabilities. They either work with no operating capabilities or rely on a network of external advisors.

No Operating Capabilities

Firms in this category choose to impact their portfolio companies mostly through governance mechanisms – including the appointment of new top executives and the design of incentives. The Private Equity firms operating under such model typically target healthy firms with strong and sustainable cash flows. They focus mostly on strengthening the management team.

Most large Private Equity firms have shifted from this business model to more operational ones. This model restricts the universe of potential targets. In an increasingly competitive environment, with PE firms often paying large premium to win the competitive bidding process, there are very few targets that do not require significant operating improvements and still generate large value for investors.

A Network of External Advisors

Other Private Equity firms also chose not to develop internal capabilities but still rely on external advisors to identify potential improvements. These experts mostly consist in former CEOs and CFOs. They often have an equity stake either in the Private Equity company or in one of the portfolio companies but do not appear on the Private Equity firm’s payroll. Those external advisors have two roles. Firstly, they help to identify and assess potential targets. Secondly, they help the CEO and can sometimes serve as intermediaries between the top management and the Private Equity firm.
Many large well established PE firms continue to operate under this model. Famous examples include Apollo Global Management, Goldman Sachs and The Carlyle Group.

2.2. Model 2: Private Equity Firms Relying on Operating Partners

The Private Equity firms in this group have built high level operating capabilities. They rely on an internal network of professionals at the partner level. Partners are either generalist operating partners or functional operating partners. This model is becoming more and more popular among investors. As a consequence, limited partners increasingly focus on the Private Equity firm’s operating capabilities and are more demanding regarding the operating partners’ profiles. Rob Voeks, a partner at Private Advisors, noted that: “These executives must be positioned as trusted advisors, not phantom operating partners on a list of names that help raise money.” Mr. Voeks views this issue as critical in his Fund of Funds’ manager process selection, adding that “it would be difficult for [them] to invest in a PE firm without some kind of operating partner model.”

3i, Advent International, Apax Partners or CVC Capital Partners operate under this model.

*Generalist Operating Partners*

General operating partners are former top executives (often former CEOs or CFOs) with deep industry knowledge who join the Private Equity firm as general partners. Much like external partners, they act as interlocutors between the firm and the portfolio company and intervene on the CEO agenda. In addition, they have a say on the operating improvement initiatives developed, but do not supervise operations on a daily basis.

The main advantage of such model is that it involves very high-profile executives used to delivering value and bringing substantial industry and industrial expertise. However, this model is not simple to set up. It is notably hard to scale up. A generalist partner can engage with up to at the most five portfolio companies at a time. Furthermore, there is a limited number of credible candidates for the job. Private Equity firms are indeed looking for top profiles with a well-rounded set of hard and soft skills.

*Functional Operating Partners*

This model differs from the generalist operating partner model as i) partners are not as senior and ii) they generally do not serve at the portfolio company’s board. They operate as consultants, working on specific operating improvement initiatives (e.g.: procurement or sales force effectiveness).

The advantage of such model is that it is easily scaled up. It works best when the Private Equity funds has a large number of companies in portfolio. Consequently, functional value-creation initiatives can be systematically implemented in a standardized manner.
The drawback of such model is that it focuses almost exclusively on bottom-line initiatives that can be standardized. It offers very few opportunities to face a disruptive move in the business or to set up an innovative top-line growth strategy.

2.3. Model 3: Private Equity Firms with In-House Operating Teams

These firms have realized significant investments to build operating capabilities. They can rely on an operating team, with professionals at multiple levels of the organization. The model can be further divided into two sub-models: firms with small in-house operating teams or firms with large in-house operating teams.

Bain Capital, Kohlberg Kravis Roberts (KKR) and Texas Pacific Group (TPG) all have large in-house large operating teams. Blackstone has also started its in-house operation team recently.

Small In-House Operating Team

Under this model, a multitier team of professionals with operating background backs up the operating partner and leverage his work. Usually, the operating partner focuses on specific management-level projects with the CEO and the in-house team then helps the company implement them. The in-house team thus operates as an in-house consulting firm.

The main advantage of this model is that the Private Equity firm develops an in-depth comprehension of the team’s capabilities and can offer a consistent approach to improve operations. In addition, it enables the fund to expand the universe of potential targets. It can notably invest in firms with less sustainable cash flow generations or more complex rationalizations to implement. However, such model requires significant scale – notably in term of companies in the portfolio – to be deployed.

Large In-House Operating Team

This model brings the in-house model one step further. Once the in-house operating team reaches a critical mass of people and expertise, it plays a more central role. Responsibilities are more balanced between the deal and the operating teams. In some situations, the deal partner takes the lead until the closing and the responsibilities go to the operating partner during the implementation of the value plan.

3. How to Efficiently Deploy Each Model? A Brief Case Study

To further understand the rationale behind those different operating models, we interviewed Private Equity professionals. Based on those interviews, we try to determine key success factors to take advantage of each model.
3.1. Model 1: Upfront Potential and Talent Sourcing is Critical

Firms With No Operating Capabilities Must Source Top Companies With Untapped Growth Potential

In an increasingly tough economic context that forces to boost operational value creation, a model with no operating capabilities and no advisors can appear to be anachronistic. However, some Private Equity firms still manage to make it work.

We interviewed Mr. Don Napier, Executive Vice President of Gen Cap America. The firm ranked within the top quartile in the U.S. with 2005 vintage fund. Mr. Don Napier explained the firm’s success by a very simple yet proofed business model.

The team spends most of its time on sourcing deals. The ideal target has large cash flows, operates in a basic business (manufacturing or distribution), and has a strong management team and a short customer base.

Once the deal is signed, the PE firm has very limited impact on the operations. Key initiatives consist in improved governance mechanisms:

- Appointment of new managers: Gen Cap America sometimes appoint a new Chief Financial Officer or Head of the IT department. However, it never appoints a new CEO. Indeed, outstanding top management is a key element of the investment thesis. The firm invests in a company if and only if the executive committee believes in the top management’s skills or business plan
- Increased incentives to ensure alignment with top managers.

Those levers are well known and broadly used in the industry. It seems puzzling that those simple initiatives can account for the fund’s financial over-performance. Commenting on that, Mr. Don Napier affirmed that the firm’s success was based on the freedom to operate granted to the top management. Contrarily to previous shareholders, Gen Cap America lets top managers undertake many new top-line projects. He assumed that previous shareholders were too risk-averse to undertake new projects and thus did not manage to take benefit from many existing opportunities.

Firms With External Advisors Should Rely on Industry Veterans and Clearly Define the Position Upfront

Other firms with no internal capabilities choose to rely on a network of advisors. We interviewed Mr. Antoine Lencou-Barême, Director at Ardian in the Co-Investment team. The team focuses exclusively on large capitalization deals both in Europe and the U.S. alongside large sponsors. Due to lack of internal operating resources, the Co-Investment team relies heavily on external experts, both to conduct the due diligences and to help the management team in the first year. The experts have either worked in the past with
Ardian or are new experts recruited for a specific task (e.g.: assessing the management’s business model) and eventually extend the scope of their mandates.

Mr. Lencou-Barème affirmed that a first key success factor was to work with industry veterans. These experts possess the strong hard skills required to create value and have an in-depth knowledge of the industry. They have indeed often previously operated as CEOs or CFOs. Mr. Lencou-Barème noted that they sometimes lacked the soft skills to collaborate or effectively influence the CEO in place, but he believed that it was not a deal breaker for the job as they were not involved in the day-to-day operations. In a minority of cases, the firm hired former bankers or consultants. Those experts adapt very well to the Private Equity environment. They usually have outstanding communication skills that excel at easing the communication between the fund and the portfolio company. However, they lack the industry knowledge developed by former industry executives.

Mr. Lencou-Barème also highlighted that the positions must be clearly defined early on to make sure that the CEO and the expert can successfully work together. The expert’s role must be clear, so that he is not perceived as a potential replacement.

3.2. Model 2: Recruit Operating Partners with Both Hard and Soft Skills

According to Mr. Claude Shaw, partner at the recruiting firm Egon Zehnder, successful operating partners must excel in three dimensions:

• Firstly, operating partners must help create value. The position mostly requires hard skills and result-driven profiles. Executives with for instance a strong background in supply chain management or CPG marketing experience in emerging countries could have interesting hard skills for the position. The most effective candidates in that dimension tend to be former CEOs.

• The second dimension relates to soft skills. It consists in successfully influencing the deal partner. The operating partner must convince that he or she can create value. This requires collaboration and influencing as well as market knowledge of the Private Equity industry. Consequently, most successful profiles in that dimension are former conglomerate CFOs used to supervise companies with relatively little shared infrastructure.

• Eventually, the third dimension also relates to soft skills. Top candidates must successfully manage to influence the portfolio CEO. It implies collaboration, influencing and change leadership. To successfully work with the portfolio CEO, the operating partner must create value without usurping power and must not be perceived as a spy for the fund. Consequently, top performers in that dimension tend to be former senior consultants who have experienced business leadership roles.
Those three dimensions are all required to perform well in the position. However, Private Equity firms tend to privilege candidates with strong soft skills, who can efficiently create value. As a result, the pool of candidates is very often filtered in that exclusive dimension. However, soft skills remain key in the position and also add real value. According to Mr. Andrew Rolfe, MD and Chairman of the Portfolio Committee, Towerbrook, “it is not enough for an operating partner to be smart and know the answers; to have impact you have to be able to build an effective network at the portfolio level.” This implies a strong leadership potential.

However, detecting such potential upfront can be challenging. Very few candidates have had the opportunity to do everything in the past. According to Mr. Claude Shaw, in this specific situation, Private Equity firms should look for candidates with “the innate ability to engage others – specifically engaging the emotions and logic of others to communicate a persuasive vision and connect individuals to the organization and the leader.” This potential is a root of the soft skills required to do well in the position, and is a good indicator of the underlying potential of a candidates with limited previous soft skills experience.

3.4. Model 3: Provide the Operating Team With Continuous and Multi-Skill Training

We interviewed with Mr. Guy Hands, Chairman and Founder of Terra Firma, and with Mr. Tim Pryce, CEO of Terra Firma. They explained in depth the company’s operating business model, based on high degree of activism. The operating team consists in roughly 50 professionals. The operating team – notably the most junior members – is involved early in the process. Their expertise is leveraged in the due diligence phase, which is conducted asset by asset. They are also involved in the development of a value plan in and a 100-day plan.

They are also involved in the daily activities of the companies during the holding period. During this phase, the team is usually structured as follows. Two types of professionals help each portfolio company at the top. On the one hand, a Managing Director – typically a former CEO – acts as Chairman in the company. On the other hand, a Financial Director is in charge of the financial reporting and processes of the company. Together with the deal partner, they are responsible for the company’s performance. In addition, a pool of analysts and associates backs them up by both off- and on-site projects. Those projects can have a strong financial content or can correspond to an internal consulting job.

According to Mr. Hands, a key success factor is a multi-skill training for the operational team. At Terra Firma, most professionals are recruited as analysts and receive both operational and financial training and are involved in a rotational program within both the operational and the deal teams. Such program offers in their view a broader
background to the professionals and is a huge asset for the firm. It facilitates the collaboration with the deal team and forces the operating team to think in terms of cash flows when implementing a new initiative.

In addition, Mr. Hands noted that the knowledge base had to be constantly updated to offer the portfolio companies a sustainable competitive advantage. This refreshment was sustained through continuous training, as Terra Firma recruit very few senior professionals.

From this brief case study, we see that the key factors to consider within each business model do not take place at the same stage.

- For model 1 (no operating capabilities) and model 2 (operating partners) upfront company and talent sourcing is critical. Firms using model 1 must carefully source deals to select companies with outstanding management and upside potential. Firms implementing model 2 must dedicate significant time and resources to operating partner recruitment, and bear in mind that hard skills are necessary, but not sufficient.

- For model 3 (in-house operating team), day-to-day knowledge update is key. Operating teams' knowledge must be continuously upgraded to keep up with the latest management practices and offer a competitive advantage to the portfolio companies. It can be obtained either through continued recruitment – which implies a high turnover – or continued trainings. Multi-skill training is an undeniable asset.

4. Which is the most efficient operating model to boost operating gains?

4.1. PE firms with limited operating capabilities have over-performed in the past decade

In this section, we attempt to correlate the financial performance of the PE firms with the various operating models. We relied on the following methodology. We firstly selected 30 large and well-established PE firms. We studied their operating model and categorized them into the three business models described above. We also distinguished large funds (> $15B raised over the period from 2005 to 2010) from the medium funds (<$15B). Based on our research, we found that among those PE firms:

- 37% operated under the In-House Operating Team model
- 37% relied on Operating Partners
- 26% had no internal capabilities

We then focused on funds raised by those 30 PE firms after 2000. We relied on PitchBook to report their performance relative to benchmark. For each fund, whenever the information was available, we reported the quartile the fund was in. We eventually
positioned the PE firms in quartile based on their funds’ mean and median quartiles over the period. The results are shown below.

<p>| PE Firms' Performance per Quartile (for funds vintage after 2000) |
|------------------------|-----------------|-----------------|</p>
<table>
<thead>
<tr>
<th>Size</th>
<th>Operating Model</th>
<th>Performance Average</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bain Capital</td>
<td>Large</td>
<td>3,0</td>
<td>3,0</td>
</tr>
<tr>
<td>KKR</td>
<td>Large</td>
<td>2,4</td>
<td>3,0</td>
</tr>
<tr>
<td>Texas Pacific Group</td>
<td>Large</td>
<td>2,7</td>
<td>3,0</td>
</tr>
<tr>
<td>The Blackstone Group</td>
<td>Large</td>
<td>1,7</td>
<td>2,0</td>
</tr>
<tr>
<td>Cerberus Capital Management</td>
<td>Medium</td>
<td>2,7</td>
<td>3,0</td>
</tr>
<tr>
<td>Clayton, Dubilier &amp; Rice</td>
<td>Medium</td>
<td>2,0</td>
<td>2,0</td>
</tr>
<tr>
<td>Doughty Hanson</td>
<td>Medium</td>
<td>2,5</td>
<td>2,5</td>
</tr>
<tr>
<td>Lion Capital</td>
<td>Medium</td>
<td>4,0</td>
<td>4,0</td>
</tr>
<tr>
<td>Sun Capital Partners</td>
<td>Medium</td>
<td>2,0</td>
<td>2,0</td>
</tr>
<tr>
<td>Terra Firma</td>
<td>Medium</td>
<td>4,0</td>
<td>4,0</td>
</tr>
<tr>
<td>Thomas H. Lee Partners</td>
<td>Medium</td>
<td>2,0</td>
<td>2,0</td>
</tr>
<tr>
<td>3i</td>
<td>Large</td>
<td>4,0</td>
<td>4,0</td>
</tr>
<tr>
<td>Advent International</td>
<td>Large</td>
<td>1,8</td>
<td>1,0</td>
</tr>
<tr>
<td>Apax Partners</td>
<td>Large</td>
<td>2,2</td>
<td>2,0</td>
</tr>
<tr>
<td>CVC Capital Partners</td>
<td>Large</td>
<td>1,5</td>
<td>1,0</td>
</tr>
<tr>
<td>Bridgepoint</td>
<td>Medium</td>
<td>2,7</td>
<td>3,0</td>
</tr>
<tr>
<td>Candover</td>
<td>Medium</td>
<td>4,0</td>
<td>4,0</td>
</tr>
<tr>
<td>Montagu</td>
<td>Medium</td>
<td>2,0</td>
<td>2,0</td>
</tr>
<tr>
<td>Oaktree Capital Management</td>
<td>Medium</td>
<td>2,3</td>
<td>2,0</td>
</tr>
<tr>
<td>PAI Partners</td>
<td>Medium</td>
<td>1,7</td>
<td>1,0</td>
</tr>
<tr>
<td>Permira</td>
<td>Medium</td>
<td>2,0</td>
<td>2,0</td>
</tr>
<tr>
<td>Silver Lake Partners</td>
<td>Medium</td>
<td>2,3</td>
<td>2,0</td>
</tr>
<tr>
<td>Apollo Global Management</td>
<td>Large</td>
<td>1,9</td>
<td>1,0</td>
</tr>
<tr>
<td>Goldman Sachs</td>
<td>Large</td>
<td>4,0</td>
<td>4,0</td>
</tr>
<tr>
<td>Hellman &amp; Friedman</td>
<td>Large</td>
<td>1,0</td>
<td>1,0</td>
</tr>
<tr>
<td>The Carlyle Group</td>
<td>Large</td>
<td>2,2</td>
<td>2,0</td>
</tr>
<tr>
<td>Warburg Pincus</td>
<td>Large</td>
<td>2,2</td>
<td>2,0</td>
</tr>
<tr>
<td>Barclays Private Equity</td>
<td>Medium</td>
<td>2,0</td>
<td>2,0</td>
</tr>
<tr>
<td>Charterhouse Capital</td>
<td>Medium</td>
<td>2,5</td>
<td>2,5</td>
</tr>
<tr>
<td>Cinven</td>
<td>Medium</td>
<td>3,0</td>
<td>3,0</td>
</tr>
</tbody>
</table>

Source: PitchBook, own analysis

From this analysis, it clearly appears that PE firms with no internal capabilities have over-performed firms using other operating models over the last 15 years. On average, a larger number were positioned in the two first quarters.
Performance (in quartile) by operating model for the largest PE firms

<table>
<thead>
<tr>
<th>Operating Model</th>
<th>Size</th>
<th>Performance (quartile)</th>
<th>Mean</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-House Operating team</td>
<td>Medium</td>
<td>2.7</td>
<td>2.8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Large</td>
<td>2.4</td>
<td>2.8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Both</td>
<td>2.6</td>
<td>2.8</td>
<td></td>
</tr>
<tr>
<td>Operating Partners</td>
<td>Medium</td>
<td>2.4</td>
<td>2.3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Large</td>
<td>2.4</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Both</td>
<td>2.4</td>
<td>2.2</td>
<td></td>
</tr>
<tr>
<td>No Internal Capabilities</td>
<td>Medium</td>
<td>2.5</td>
<td>2.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Large</td>
<td>2.3</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Both</td>
<td>2.3</td>
<td>2.2</td>
<td></td>
</tr>
</tbody>
</table>

Those results can seem puzzling: the less resources the PE firms dedicate to their portfolio companies’ operating performance, the higher the financial returns. However, the difference between the three clusters is not very significant and the sample used (30 companies) may not be large enough to derive any conclusion. Furthermore, multiple growth and financial engineering have largely driven the financial performance over the last decade. Financial returns were therefore partly decorrelated from the operating performance. We believe that in the current tougher environment, the results observed will be dramatically changed in favour of more elaborate operating models.

In conclusion, we do not believe there is a single operating model that significantly outperforms the others. Although PE firms with limited operating capabilities have displayed higher performance over the past fifteen years, the difference is not significant. In addition, the past performance may not be representative of the future performance as market conditions have dramatically changed recently. We believe that when well implemented, all models can generate significant gains. Ranking the three business models based on the expected performance going forward may therefore be highly subjective. In order to overcome this bias, we rely on two objective dimensions, namely i) the type of initiatives implemented and ii) the PE firm’s size.

4.2. Optimal Model Varies in Terms of Initiatives Implemented

Most common initiatives implemented by Private Equity funds

The exhibit below presents 25 initiatives, categorized in the four areas, that a company can use to improve its operations. The BCG interviewed 29 Private Equity professionals in 15 mature Private Equity funds. Overall, the results show that PE firms mostly rely on bottom-line initiatives and revenue growth initiatives.
Companies Can Create Operational Value in Four Broad Areas

Financial structure | Bottom line | Top line (core business) | Top line (expansion)
--- | --- | --- | ---

Top initiatives used by Private-Equity Firms

Source: BCG report, Private Equity: Engaging for Growth, January 2012

The detailed results are presented below. They show that top Private Equity funds focus on specific top-line initiatives. More than 80% of the interviewees affirmed that their firms systematically focused on top-line expansion strategies, consisting in both M&A initiatives and geographic expansion. The other key initiatives deployed mainly consist in bottom-line initiatives – namely, sourcing, overhead reduction, procurement, sales force effectiveness or pricing. Unsurprisingly, other top-line initiatives are in the bottom of the list. This suggests that even top PE firms, which excel at implementing bottom-line initiatives, are still less experienced with the revenue growth levers.
Private-Equity Firms Do Not Implement Many Top line

<table>
<thead>
<tr>
<th>Initiatives</th>
<th>Percentage of firms that systematically use this initiative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Channel management</td>
<td></td>
</tr>
<tr>
<td>Service</td>
<td></td>
</tr>
<tr>
<td>Brand strategy</td>
<td></td>
</tr>
<tr>
<td>Product line development</td>
<td></td>
</tr>
<tr>
<td>Marketing</td>
<td></td>
</tr>
<tr>
<td>Account management</td>
<td></td>
</tr>
<tr>
<td>Business model development</td>
<td></td>
</tr>
<tr>
<td>Product innovation</td>
<td></td>
</tr>
<tr>
<td>Channel strategy</td>
<td></td>
</tr>
<tr>
<td>Product bundling and cross-selling</td>
<td></td>
</tr>
<tr>
<td>Restructuring or divestment</td>
<td></td>
</tr>
<tr>
<td>Delaying</td>
<td></td>
</tr>
<tr>
<td>Operation, production and manuf. efficiencies</td>
<td></td>
</tr>
<tr>
<td>Logistics</td>
<td></td>
</tr>
<tr>
<td>Fixed-asset optimization</td>
<td></td>
</tr>
<tr>
<td>Surplus cash policies</td>
<td></td>
</tr>
<tr>
<td>Capital expenditure optimization</td>
<td></td>
</tr>
<tr>
<td>Working-capital optimization</td>
<td></td>
</tr>
<tr>
<td>Pricing</td>
<td></td>
</tr>
<tr>
<td>Sales force effectiveness</td>
<td></td>
</tr>
<tr>
<td>Procurement</td>
<td></td>
</tr>
<tr>
<td>Overhead cost reduction</td>
<td></td>
</tr>
<tr>
<td>Sourcing</td>
<td></td>
</tr>
<tr>
<td>Geographic expansion</td>
<td></td>
</tr>
<tr>
<td>M&amp;A</td>
<td></td>
</tr>
</tbody>
</table>

Source: BCG report, Private Equity: Engaging for Growth, January 2012
The sample consists of 29 interviews subjects at 15 Private Equity firms

How Do the Different Operating Models Differ in their Use of Operational Value Creation Initiatives?

Based on BCG research, firms that rely on external advisors show little evidence of a consistent pattern. Their initiatives greatly vary based on the background and the experience of their advisors.

Firms with generalist operating partners can implement both bottom- and top-line initiatives. The operating partners are usually former industry experts who have wide expertise on both growth and optimization opportunities. Their limited size is both a drawback and an advantage. On the one hand, their approaches of are less systematic due to lack of time and resources. On the other hand, their approaches are also less standardized and they can more easily focus on innovative strategies and initiatives. Based on BCG research, most common initiatives consist in geographic expansion, M&A and pricing.
Firms with functional operating partners have clearly a bottom-line focus. They rarely focus on top-line levers and when they do, they usually focus on "plain vanilla" approaches. Most common initiatives consist in M&A, sourcing, and working capital optimization.

Firms with in-house operating team focus on a course of action similar to that of firms with functional partners. However, they go one step further a get more involved in the implementation. Most common improvements are M&A, sourcing and overhead cost reduction for firms with small in-house operating teams and M&A, geographic expansion and procurement for firms with large in-house operating teams.

In an increasingly tough environment, Private Equity firms must increasingly focus on top-line initiatives to successfully deliver operating gains. Many target companies have already been rationalized – either as public companies or during a first LBO – and consequently, there are fewer "quick-wins". As a consequence, we believe that firms with generalist operating partners are more agile and may be the best positioned to capture potential operating gains coming from growth strategies. Regarding bottom-line initiatives, while both firms with functional operating partners and in-house operating teams have developed credible models, we believe that in-house operating team may be the best model. The teams, of course, are bigger and can thus get significantly more involved in the actual implementation. Such model deleverages the risk of bad implementation and can help to deploy more complex initiatives and yield higher operating gains.

4.3. Optimal Model Varies in Term of the Fund Size

As previously discussed, the generalist operating partner model is not easy to scale up. An operating partner can get involved in up to five portfolio companies. Furthermore, there are few candidates that fit in the position. Generalist operating partners are usually high profile and must possess both hard and soft skills to success in this position.

On the contrary, the functional operating partner model and the in-house operating team model require scale. In some cases, Private Equity firms prefer to limit in-house expertise, as the need for these services is cyclical. This is notably the case for firms with functional partners. In the recent economic crisis, we noted a surge in the demand for restructuring experts. This area of expertise is less likely to be in demand when in a recovering or growing economy. An intermediary solution can consist in drawing upon additional external resources to cope with demand resulting from cyclical trends.

The fund size and the degree of involvement in the operations are two critical dimensions to consider when opting for a specific operating model. The in-house operating team model is the most scalable model but focuses mostly on bottom-line initiatives and can be risky to operate in a changing business environment. Funds with
generalist operating partners are more adapted to mid-size funds or funds targeting mid-size companies. Such model offers more flexibility and a stronger focus on top-line initiatives. However, it is hard to scale it up. The choice between those two types of operating model will largely depend on the market trends reshaping the industry. Many experts we interviewed with expect further consolidation in the market favoring mega funds and a collapse of average performers due to tougher industry conditions and increasing competition. Under those circumstances, the in-house operating team model might be the best model going forward. However, it needs to adapt to increasingly focus on top-line initiatives. It requires changing the recruiting standards to bring in new profiles and to increase the continuous training to ensure knowledge refreshment.
Conclusion

Throughout this thesis, we highlighted that in spite of the numerous criticisms of the Private Equity industry, LBO firms generate large operating improvements. However, the degree of those improvements relative to the industry has greatly varied overtime.

In section II, we showed that the first wake of LBOs significantly over performed the industry in the 1980s. The superior operating gains documented were driven by reduced agency costs or increased incentives. On the operating side, it involved significant asset rationalization and led to significant improvement of ROA and ROS ratios.

In section III, we evidenced that most recent Private Equity transactions also yielded significant operating gains. However, the LBO companies do not beat the industry benchmark anymore. We presented a set of two hypotheses to account for the decline of LBO firms relative to the industry. We firstly hypothesized that recent rationalization programs in public companies may have reduced the efficiency gap between private and public companies. Secondly, we also hypothesized that the Private Equity market maturity led to an increase in secondary LBOs with lower operating improvement potential.

We also noted that although operating improvements may not be as significant as in the 1980s for the whole Private Equity industry, the largest and most mature PE funds persistently manage to out-perform both benchmark and other funds.

In section IV, we eventually tried and identified key success factors of those the largest and most mature PE firms. We detailed their different business models and associated operating initiatives. We eventually showed that firms with generalist-operating partners may be the best positioned to capture large operating gains going forward. We indeed believe that most of the operating improvements in the years to come will be derive from either top-line initiatives or more innovative and complex bottom-line optimization. Generalist operating partners model that ideally combine flexibility (small internal operating team) and real industrial expertise that can help to tap new growth opportunities.
References


