Private Equity and the Buy-and-Build Strategy

Cultural challenges with cross-border Add-ons

ERASMUS UNIVERSITY ROTTERDAM
Erasmus School of Economics
Economics and Business Economics
Specialisation in Financial Economics

Supervisor: dr. Jan Lemmen
Second assessor: Sjoerd van den Hauwe

Master Thesis
Yunus Emre Acar
361063

December 21, 2017

Abstract

Using a unique hand-collected dataset of 55 Buy-and-Build cross-border and domestic Add-on deals backed by Private Equity (PE) firms between 2006 and 2015 across 20 countries, this research gives insight in cultural challenges faced by PE firms by examining Deal Pricing and Operating Performance. Evidence is found that Deal Prices, in terms of EV/EBITDA, of cross-border Add-ons transcend those of domestic Add-ons. Furthermore, by examining Compound Annual Growth rates, cross-border Add-ons experience less improvement in their Operating Performance in terms of EBITDA Growth relative to domestic Add-ons.

JEL: G11, G24, G34

Keywords: private equity, buy-and-build, culture, operating performance

Contents

1. INTRODUCTION

Among the fastest growing markets in the second half of the previous century belongs the Mergers and Acquisitions (M&A) market (Jensen, 1989). The growth, especially in the U.S., was tremendous which contributed to the origination of several transaction forms, like the Management Buyout (MBO) and Leveraged Buyout (LBO). The latter can be seen as a reason for the rise of Private Equity (PE) firms in the 1980s. These are firms investing in existing Public and Private Companies by taking a majority interest or engaging in a Buyout. Their capital originates from funds created by various investors, called Limited Partners (LP). The manager in control of these funds is called the General Partner (GP). However, a short break in LBO activity was caused by the crises in the early 1990s, but LBOs gained extremely in their popularity shortly after (Guo, Hotchkiss, & Song, 2011). Other crises have been overcome and economic prosperity together with favourable credit market conditions contribute to record breaking PE fund sizes and transactions nowadays (Bain & Company, 2016). While the U.S. have the highest concentration of PE firms, the U.K. follows with a small distance. Asia-Pacific and continental Europe, however, are catching-up as they started that process years ago and reaching ever higher growth rates now. Higher concentration of PE firms forces GPs to come up with innovative strategies to keep creating value resulting in the dynamic PE industry as we know it nowadays.

Activity in the M&A market attracted attention from all corners of society. Concerns were rising for outsiders as they witnessed harsh practices by professionals from time to time. While the first loud voices date back to the period associated with the rise of Buyout activity, practitioners never stopped facing accusations. Which is understandable since some have earned a fortune and others have lost their jobs as a consequence of a Buyout (Opler & Titman, 1993). Short-termism, worsening working conditions, highly reduced tax payments, and financial distress are just a handful of society's complaints (Watt, 2008; Wright, Amess, Weir, & Girma, 2009; Wilson & Wright, 2013).

However, following the literature, Buyouts and PE firms significantly add value with their practices. Jensen (1986) looked from the scope of the Agency Theory towards LBOs and came to the argument that large amounts of debt increase the control on managers. In other words, managers are restricted in their spending of the firm's cash flows on projects with a negative net present value. The reduced Agency Costs are then distributed as a premium to pre-Buyout shareholders and play a significant part in the decision making in Public-to-Private transactions[1] (Lehn & Poulsen, 1989). However, some opponents of the free cash flow hypothesis argue that the value created by cutting Agency Costs is

[1] Transactions where public companies are taken private through Buyouts.

limited (Servaes, 1994). Others, however, suggest that tax reductions contribute to wealth gains (Lowenstein, 1985; Kaplan, 1989a; Kieschnick, 1998).

Another way of value creation is through the operating performance of the Buyout Company, Buyout Firm or Portfolio Company, as all terms imply the same and will be used interchangeably throughout this study. Improvements in the operating performance are found by means of increasing operating income, decreasing capital expenditures, and increasing cash flows (Kaplan, 1989b). A commonly applied way to improve performance is by means of accelerating productivity in the post-Buyout phase (Lichtenberg & Siegel, 1990). However, according to Guo *et al.* (2011), Buyouts from the 1980s are more succesfull in improving operating performance relative to their more recent peers. While another study points out that large and mature PE firms are the ones able to increase the operating performance of Buyouts between 1995 and 2005 (Acharya, Gottschalg, Hahn, & Kehoe, 2013). This, however, is according to some mainly caused by their higher risk exposures relative to smaller funds (Driessen, Lin, & Phalippou, 2007).

Returns of PE firms were not disclosed for a long time making it hard to research. Thankfully, developments have occurred enabling researchers to shed more light on this topic. It is found that the typical PE fund generates a return of 24% on a risk-adjusted basis (Ljunqvist & Richardson, 2003). This remarkable return is partly explained as a compensation for the illiquidity of PE investments. However, besides illiquidity, there are additional risks applicable to PE investments above the conventional risks of Public Markets (PM), like a long investment horizon and high bankruptcy rates (Rinaldi, 2012). Nevertheless, small excess returns gross of fees were observed relative to the S&P 500 by Kaplan & Schoar (2005), but the opposite was true for returns net of fees. More recently, U.S. Buyout funds generated excess returns relative to PMs' performance, averaging 20% to 27% over the life of the fund (Harris, Jenkinson, & Kaplan, 2014). One of the reasons for these mixed results is the use of different return measures yielding different results. For instance, the Internal Rate of Return (IRR) on Enterprise Value (EV) and on invested equity capital both have different outcomes. This is illustrated by Nikoskelelainen & Wright (2007) by showing that IRR on EV is reported to be 22%, whereas the average IRR on equity capital is 71%. In addition, type of exit also has a significant effect on the final result (Jelic & Wright, 2011). The highest returns are produced by exiting through an Initial Public Offering (IPO), the observed median EV IRR is 44% and equity IRR is 99%. This view also seems to be incorporated by GPs as Jelic and Wright (2011) showed that an IPO is the most frequently used exit route for U.K. PE firms.

Several researchers justly advocated for handling PE fund data with caution. It is argued that, especially when it comes to the accounting data of Portfolio Companies, upward biases are present (Phalippou & Gottschalg, 2009). Because a majority of the current databases are created with data originating from GPs. However, some practitioners

argue that biases in these data are directed downwards instead of upwards (Stucke, 2011). Alternative measures help to tackle these concerns. Ick (2005), for example, uses PM Equity investments to simulate the cash flow of PE investments and applies a different risk measure. He believes that shortfall risk and downside deviation do a better job in reflecting the risks of PE investment. His findings indicate that PE investments earn excess returns gross of fees and on a risk-adjusted basis relative to their PM equivalents. Another method is to look directly to the market prices of publicly listed firms making PE investments (Jegadeesh, Kräussl, & Pollet, 2015). The results show that publicly traded Fund of Funds are able to generate abnormal returns between -0.25% and 2.0%.

The discussion about the consensus in which PE firms are the writers of their own success stories is up and running and collects defenders of this view along the way. Several researchers have shown that actions taken during the post-Buyout phase as a result of large amounts of debt contribute to improvements in operating performance (Jensen, 1986; Smith, 1990; Jovanovic & Rousseau, 2002; Harris, Siegel, & Wright, 2005; Guo, Hotchkiss, & Song, 2011). These studies presented evidence for increasing productivity, improving cash flows, and more efficient use of resources. In addition, PE firms are also more successful when it comes to dealing with economic adversity. Portfolio Companies were able to outperform their peers with 5 to 15% in terms of productivity and 3 to 5% in terms of profitability during economically turbulent years (Wilson, Wright, Siegel, & Scholes, 2012). Making corporate decisions improving performance requires certain capabilities and skills as well as experience from participating managers working for PE firms and Portfolio Companies (Kaplan & Schoar, 2005; Guo, Hotchkiss, & Song, 2011; Wright, Hoskisson, & Busenitz, 2001; Gong & Wu, 2011; Achleitner, Braun, & Engel, 2011; Metrick & Yasuda, 2010; Acharya, Gottschalg, Hahn, & Kehoe, 2013; Zarutskie, 2010). In addition, GPs' set of skills are also tested during negotiations and when it comes to their ability to time the market. Both are decisive elements when it comes to determining the price, which in turn affects the return on the investment (Achleitner, Braun, & Engel, 2011). Also, managers are not afraid to adapt other styles if it will yield higher returns (Cumming, Fleming, & Schwienbacher, 2009). However, Nikoskelainen and Wright (2007), suggest that the size of Buyout and acquisitions done before exit are the most important drivers of returns.

These studies, in my opinion, present a rightful image of Buyout practitioners in which they are constantly seeking for opportunities and innovative solutions to earn higher returns for their investors. However, one has to keep in mind that a major treat faced by almost every PE related study is that of endogeneity. There are several reasons to think of when the presence of endogeneity is being discussed. One is simply the fact that most databases rely on data shared by GPs, whom can choose to report only their successful investments, creating Self-Selection bias. Another way for endogeneity to manifest itself

is put in motion by investors. Kaplan & Schoar (2005) argue that the track-record of a PE firm is decisive for its follow-on funds, resulting in the omission of less successful PE firms and funds. Nevertheless, it is still well worth mentioning that a lot of grateful work is done by academics and practitioners on PE and that a lot of research still can and has to be done on this subject. A recent development in the PE industry is the implementation of the Buy-and-Build (B&B) strategy. PE firms traditionally intend to exit Portfolio Companies within three to five years without any Add-on investment. Although the popularity of this strategy is growing, there is not much research conducted yet. Therefore, this study aims to provide the PE industry and the existing literature with more insight on this topic. A recent report, carried out by the Boston Consulting Group in collaboration with the Leipzig Graduate School of Management, provides some details in the characteristics and returns of successfully implemented B&B strategies by PE firms (BCG & HHL, 2016). However, the scope of that research was only to review and map the performance of PE firms implementing cross-border B&B strategies. The most related paper to this paper, to my knowledge, is Meuleman and Wright (2011) where the authors look into the process of PE firms investing across borders. Subject to their study about the influence of institutional context and organizational learning on cross-border deals are U.K. PE firms. Moreover, they do not look at performance or whatsoever. So, I will particularly try to answer the following research question:

Are Private Equity firms able to overcome cultural differences in cross-border Add-on acquisitions?

In the urge to answer the above stated research question, several OLS regressions were executed examining Deal Price, Sales Growth, EBITDA Growth, and EBITDA-margin expansion. A unique hand-collected dataset of 55 Add-on deals backed by PE firms, and with a minimum value of $100 million, is used. Subsequently, Deal Prices are found to be higher for cross-border Add-ons relative to domestic Add-ons. In more detail, it is found that the difference could mount up to 0.94 in the EV/EBITDA multiple between cross-border Add-ons and domestic Add-ons. Furthermore, Sales Growth generated insignificant results but positive signs. Indicating that cross-border Add-ons might be outperforming their domestic peers. Underperformance, however, of the cross-border Add-on relative to the domestic Add-on is observed in terms of EBITDA Growth. The difference in growth rates could reach a significant difference of 23% in the disadvantage of cross-border Add-ons. Moreover, similar signs were observed in terms of EBITDA-margin expansion. In other words, the coefficients indicated that the cross-border Add-on underperformed the domestic Add-on in terms of margin expansion, but remained insignificant. Subsequently, several tests were conducted trying to observe differences between European and North-

American transactions. Based on the location of the Platform firm, deal prices paid by North-Americans for their cross-border Add-ons were higher compared to the prices Europeans pay. Moreover, operating performance tests showed differences in the favour of the North-Americans in terms of Sales Growth and EBITDA Growth, but not for EBITDA-margin expansion. Although interesting results were obtained, they were not statistically significant.

The remaining of the research will have the following outlay: after this section's introduction to the subject, section 2 covers the literature review. Next, section 3 will give a description of the data and section 4 will cover the methodology of the research. Section 5 will show the results per hypothesis subject to the research. Section 6 will give a short summary and conclusions. The thesis will end with a discussion about the limitations and recommendations for future research in Section 7.

2. LITERATURE REVIEW

This chapter covers the existing literature on PE and Buyouts. The first studies on M&A in the literature of Finance focused mainly on MBOs and LBOs. While these kinds of deals began to occur in the 1970s, it was not until the 1980s that it came to the attentions of academics. The objective back then was to detect and expose the externalities related to these transactions. Later on, with the rise of PE firms, the PE sector itself became subject in many studies trying to reveal the drivers of value creation and wealth gains triggered by PE. Researchers faced a difficult challenge due to the large heterogeneity in deals and PE, making it difficult to draw general conclusions (Halpern, Kieschnick, & Rotenberg, 1999). Also, researchers and practitioners had to challenge the possibility of self-selection bias and endogeneity among their dataset. One should be aware of the three different ways of endogeneity to occur. Following Wintoki *et al.* (2012), it could occur through omitted variables which have a correlation with some of the regressors, called unobservable heterogeneity. Second, one or more independent variables are determined simultaneously with the dependent variable, called simultaneity. And third, the independent variable is determined by past performance, called dynamic endogeneity. Below, a description of the relevant literature and its implications can be found.

2.1 LBOs and MBOs

A broad well-known concept in the Science of Economics and also applicable to Financial theory is the Agency Theory. In fact, one of the first incorporated views in M&A and Buyout studies is derived from the Agency Theory. Jensen (1986) argues that large amounts of debt increase the control on managers. In other words, debt on the balance sheet, as a

result of a Buyout, reduces the cash flow available for spending at managers' discretion. Implying that managers with excessive amounts of free cash flow are more likely to spend it on value-destroying and low-benefit projects. Accordingly, Opler and Titman (1993) found that firms that initiate LBOs, in general, have unfavourable investment opportunities and high cash flows. Empirical evidence even suggests that reduced Agency Costs are a major source of shareholders' wealth gain in the form of a premium paid to pre-Buyout shareholders (Lehn & Poulsen, 1989). Moreover, the same authors argue that reducing Agency Costs play a significant part in the decision-making of going private for firms involved in Public-to-Private transactions.

Opponents of the free cash flow hypothesis, like Servaes (1994), argue that reductions in capital expenditures may be a source of value creation only in a limited number of cases when the industry is taken as a benchmark. Kieschnick (1998) goes one step further and contradicts the assumption in which reduced Agency Costs are the source of shareholders' wealth gain as well as it influences firms' decision-making in going private. Instead, he lines up with a set of researchers suggesting another source. Kieschnick (1998) advocates for the importance of firm size and the potential for tax reductions in determining premiums. Besides constraining incentives, debt also results in tax savings through its deductibility. Therefore, argued is that LBOs contribute to the wealth gain of shareholders through tax savings, but is supposedly not the reason for their existence (Lowenstein, 1985). Corroborating, Kaplan (1989a) provides empirical evidence for this theory and shows a strong correlation between total tax savings and the premium paid to pre-Buyout shareholders. Moreover, the examination of the existence and, therefore, the reason to initiate a Public-to-Private transaction is still not very conclusive. In a more recent paper, however, the authors point out that poor stock market performance is an important reason for taking a company private (Weir, Laing, & Wright, 2005).

2.2 Portfolio Companies' Operating Performance and Fund Returns

The post-Buyout phase is characterized by changes in incentives, especially in PE, which in turn affect Buyout Companies' operating performances (Kaplan, 1989b). Kaplan (1989b) presents evidence for increasing market values in the post-Buyout phase of large MBOs as a result of improvements in operating performance. These improvements are measured by increases in operating income, decreases in capital expenditures, and increases in net cash flow. Coherent with these findings, Smith (1990) shows that operating cash flows per employee and per dollar of operating assets increase during the post-Buyout phase. Moreover, another study uses the more pronounced increase in productivity at Buyout Firms relative to their non-Buyout peers to plead for improvements in post-Buyout operating performances (Lichtenberg & Siegel, 1990).

When PE firms' influence on the operating performance is subject to research, one might argue, following past literature, that Portfolio Companies should experience substantial improvements in their operating performance. Acharya *et al.* (2013) corroborate the previous statement, however, only by arguing that large mature PE firms have a positive impact on the operating performance of their Portfolio Companies relative to that of the sector. During the ownership of companies by PE firms, the deal margin (EBITDA/Sales) and the deal multiple (EBITDA/Enterprise Value) increases with 0.4% and 16% per annum, respectively, above the sector median. This would have not been realized if the PE firm was not involved in the company. Nonetheless, firms concerned in recent Buyouts experience less improvements in their operating performance when compared to Buyouts from the 1980s (Guo, Hotchkiss, & Song, 2011). Depending on the measure, the median performance is not in every case significantly different from the benchmark firm matched on industry and pre-Buyout characteristics.

An important result of the improved operational performances are the admirable returns generated by PE firms. Returns of PE firms were not disclosed for a long time, causing that PE fund return studies could not be carried out. Ljunqvist and Richardson (2003) is one of the first studies to dive into PE returns. The authors managed to construct a detailed dataset to analyse cash flow, return, and risk characteristics of PE. Not surprisingly, PE investments are said to be very illiquid since it takes ten years for capital to be returned to generate excess returns. However, these funds still manage to realise excess returns of 5% to 8% per annum relative to the aggregate Public Equity Market (Ljunqvist & Richardson, 2003). In addition, the return of the typical PE fund is found to be 24% on a risk-adjusted basis. Assumed is that this high return is partly a compensation for the illiquidity of the investment. This is also emphasized in a paper on behalf of Vanguard. Accordingly, PE investments are exposed to unique risks on top of the conventional risks in PMs, like a long investment horizon, rigid liquidity constraints, and high bankruptcy rates among Portfolio Companies (Rinaldi, 2012). However, it must be noted that differences exist in measures for reported returns. In other words, measures for returns can be provided in form of EV IRR and of invested equity capital, where both will yield different numbers (Kaplan, 1989b). For instance, Nikoskelainen and Wright (2007) report in their U.K. sample a mean index-adjusted EV IRR of 22%, while the average equity IRR is approximately 71%. Moreover, returns also differ depending on the type of exit. IPO exits, for instance, seem to be the absolute outperformers with a median EV IRR of 44% and equity IRR of 99%. In contrast, trade sales generate a median EV IRR of 7% and equity IRR of 43%, while secondary Buyouts produce a median EV IRR of 3% and equity IRR of 21%. GPs from the U.K. are apparently aware of this, since an IPO on the London Stock Exchange is the most frequently used exit, namely in 25% of the cases from 1980 till 2009 (Jelic & Wright, 2011). Moreover, a listing on the Alternative

Investment Market is chosen in 17% of the cases, while trade sales (M&A) count for 19% and Secondary MBOs for 18%.

A study examining exit routes of U.K. Venture Capital (VC) funds made similar observations. IPOs are preferred over other exit routes because it is the fastest way to exit their Portfolio Companies compared to M&A exits and liquidations (Espenlaub, Khurshed, & Mohamed, 2009). Nevertheless, the very same authors came to contrary findings in a more recent study using another method, namely that M&A exits are preferred by U.K. VC firms for their investments all over the globe (Espenlaub, Khurshed, & Mohamed, 2015). In addition, surprisingly, shown is that the probability of an IPO exit is higher for cross-border investments relative to domestic investments by U.K. VC funds. More surprisingly is that the authors do not mention once their mixed results in both studies, which could be caused by differing methodologies, time-varying characteristics or a slightly different dataset. Moreover, an earlier paper showed that the period of time a company spends in the portfolio is of importance when it comes to exits (Giot & Schwienbacher, 2007). Studying U.S. VC funds, the authors came to the finding that there is a concave relationship between holding period and IPO exits. Trade sales, on the other hand, are less time-varying.

Attractive returns seem not to be applicable to the overall PE industry, since large heterogeneity across PE firms is found to exist (Kaplan & Schoar, 2005). The authors point out that there is quite a difference between VC fund returns and Buyout fund returns. While VC funds generate lower returns than the S&P 500 on an equal-weighted basis, higher returns are identified based on a capital-weighted basis. Buyout fund returns, on their turn, generate slightly lower returns than the S&P 500 in both cases. Nonetheless, the authors show that, on average, PE returns exceed those of the S&P 500 gross of fees. Driessen *et al.* (2007) developed a different methodology to measure and examine returns and risk exposures of PE funds with a factor pricing model. They make use of a, so called, Generalized Method of Moments (GMM) method using actual cash flow data and by avoiding the use of Net Asset Values to make estimations. Driessen *et al.* (2007) noticed larger fund returns for large funds relative to small funds as a result of their larger risk exposure. In addition, small funds have a positive relation with the SMB factor, whereas large funds have a negative relation. The opposite positioning of both funds is also the case in their loadings on the HML factor - large funds take the positive side of the room, while small funds can be located in the negative corner. Meaning that large funds generally invest in large value firms and small funds in small growth firms. Moreover, large and mature PE firms supposedly have higher success rates in boosting Portfolio Companies' operating performance and as a result earn higher returns relative to their benchmark (Acharya, Gottschalg, Hahn, & Kehoe, 2013). According to Humphery-Jenner (2012), and slightly contradictory to the previous, there is actually a negative relation between fund size and

return, implying that large funds earn less on average relative to small funds. They especially earn lower returns when they invest in smaller companies, namely close to -3%. But when they invest in larger companies, the return is on average 5%. The results taken together suggest that large funds are suited for large investments and small funds are suited for nurturing start-ups.

A majority of the PE return studies measure performance on fund and PE firm level. Ick (2005), on the other hand, measures the performance of PE firms on the investment level. The author developed an approach in which cash flows of PE investments are mimicked by PM equity investments. In more detail, matching cash flows are created by simulating PM Equity investments. The results show that PE returns unadjusted for risk and gross of fees outperform their PM equivalents. However, risk adjustment results in the underperformance of PE investments. Ick (2005) argues that standard deviation is not the best tool to measure the risk of PE investments as it overstates risk. Instead, downside deviation and shortfall risk would be a better fit according to the author. Using downside deviation, PE investments overall underperform relative to PM equivalents. However, the results differ per industry, stage, and size of the PE investment. For example, whereas early stage investments underperform, later stage investments outperform their PM equivalents. In addition, applying shortfall risk generates similar results as downside deviation leaving the author with the conclusion that PE investments earn adequate excess returns gross of fees and on a value-weighted basis (Ick, 2005).

Despite inconclusiveness and divergence in the literature, it can be argued that PE firms on average are still capable of creating value. Phalippou and Gottschalg (2009), among others, however, pointed out that there are serious upward biases in data used by most return studies. They exposed inflated accounting valuations of ongoing investments which drive a large portion of fund and investment performance. Also, use of average IRRs result in upward biases in reported performance according to the authors. Main causes are cross-country differences in accounting standards, legality, and information asymmetry (Cumming & Walz, 2010). In other words, high-quality legal systems and accounting standards lead to less overvaluation. Taken altogether, Phalippou and Gottschalg (2009) and Cumming and Walz (2010) made PE researchers and practitioners aware for the importance of accounting and pointed out that Net Asset Values of funds need to be treated carefully when evaluating PE fund performance. Despite their call for caution and awareness, the dataset and results of Phalippou and Gottschalg (2009) are comparable to Kaplan and Schoar (2005). Similarly, average performance net of fees is lower than the S&P 500 by 3% per year, but returns gross of fees are above the S&P 500 by 3% per year (Phalippou & Gottschalg, 2009). Once adjusted for risk, however, the performance decreases by about 3% for both returns gross of fees and net of fees. Concluding, the

authors point out that performance estimates are only reliable for mature funds, referring to the heterogeneity across PE firms.

While concerns regarding the quality of data were not misplaced, another study argues that the results in previous studies are biased downwards instead of upwards (Stucke, 2011). The author states that existing errors in data have a systematic and persistent character resulting in a significant downward bias. Consistently, using a new dataset sourced from over 200 institutional investors, PE fund returns in excess of the S&P 500 were found (Harris, Jenkinson, & Kaplan, 2014). The average U.S. Buyout fund surpassed the performance of PMs for a long period of time. To be more precisely, the outperformance is found to be averaging 20% to 27% over the life of the fund, which translates into 3% per year. Compared to the evidence derived from databases used in previous research, Buyout performance seems to be more pronounced than earlier documented. On the other hand, VC funds are less attractive since they were able to outperform the S&P 500 only in the 1990s. In addition, another study analysing Buyout and VC funds' revenue per partner and per professional also shows that Buyout funds generate higher revenues measured in both ways (Metrick & Yasuda, 2010).

Nevertheless, in accordance with the previous mentioned concerns regarding data, Jegadeesh *et al.* (2015) developed an additional approach to study PE performance. This study uses the market prices of publicly listed firms making PE investments. The researchers make a difference in two kinds publicly listed firms in their sample, namely publicly traded Fund of Funds (FoF) investing predominantly in unlisted PE funds and Listed PE (LPE) funds involved directly in PE deals. Results show that the market's perception is that FoF funds will earn abnormal returns between -0.25% and 2.0% on their investment in PE funds. The market's faith in LPE funds, on the other hand, is evidently less since abnormal returns are expected to be zero.

Cumming *et al.* (2013) resulted in yet another innovative approach to handle PE investments related to benchmarking. As an investor it is more appropriate to allocate a portion of your total portfolio to the PE sector as diversification instead of divesting within the PE sector which demands a relatively larger portion of your portfolio (Rinaldi, 2012). Next to performance measuring, use of the right benchmark is utmost essential in determining the portfolio's asset allocation. As previously mentioned, there is an ongoing debate whether the risk exposure of PE funds is under- or overestimated, having major implications for the allocation of resources. Depending on one's risk appetite, high risk could result in most cases in a lower allocation of resources to a certain asset class (Cumming, Haß, & Schweizer, 2013). Coming up with the modified appraisal value-based benchmark, the authors found significant improvements compared to other frequently used benchmarks. The most important finding is the overstatement of risk using other benchmarks and, therefore, inadequate Sharpe ratios.

2.3 Decomposing Performance and Returns

Although evidence in favour of improved operating performances is not very conclusive and applicable to every PE Buyout, researchers still provide several rationales behind it. As mentioned before, according to the Agency Theory, large amounts of debt cause the need for managers to justify and rethink every penny they spend (Jensen, 1986). Investments with a negative net present value are no longer accountable and, as one might argue, post-Buyout adjustments in working capital are inevitable. Smith (1990) presents that adjustments in the management of working capital do take place and contribute to the increases in operating performance. However, those increases are not a result of layoffs or reductions in expenditures. Instead, argued is that resources are reallocated to more efficient users and to better managers set off by Corporate Takeovers (Jovanovic & Rousseau, 2002). Consistent with these findings, Harris *et al.* (2005) show that new owners of a company take measures leading to an increase in productivity. More support for this rationale is given by Guo *et al.* (2011), who show that firms with larger debt positions, as a result of the Buyout, experience greater improvements in their cash flows. Nonetheless, contradictory comments on this subject are not lacking as Nikoskelainen and Wright (2007) argue that governance mechanisms are not the main drivers of value increase, but size of Buyout and acquisitions done before exit are claimed to be the more important drivers.

Despite the contradictory comments, a change in leadership does affect the firm's operational performance in most cases (Guo, Hotchkiss, & Song, 2011). The authors find that gains in operating cash flows are greater for firms where the PE firm has replaced the CEO at or soon after the Buyout. Argued is that Buyouts and a change of the management can create entrepreneurial opportunities and upside growth, which in turn affects the operational performance of the firm (Wright, Hoskisson, & Busenitz, 2001). Moreover, CEOs are frequently changed by PE firms within two years of the announcement of a LBO (Gong & Wu, 2011). The authors found a CEO turnover rate of 51% while public companies experienced a turnover rate of 11%. In particular, firms with low pre-Buyout return on assets or with high Agency Costs are more likely to experience a change of the CEO-position.

One might argue that each factor affecting operating performance affects fund returns as well, because operating performance is an important factor in explaining returns (Guo, Hotchkiss, & Song, 2011). Empirical evidence also suggests that changes in industry valuation multiples and tax benefits resulting from debt are evenly important. Besides leverage and operating performance, EBITDA multiple expansion is a fundamental factor in explaining returns as well (Achleitner, Braun, Engel, Figge, & Tappeiner, 2010; Achleitner, Braun, & Engel, 2011). In more detail, Achleitner *et al.* (2010) argued that two-thirds of PE return is attributable to improving operating performances and market effects, while the remaining is explained by leverage. Their evidence also shows that size of the

deal, in terms of EV, is indicative for which way of creating value is of more importance. It seems that smaller deals rely more on the company's ability to realize revenue growth, while large deals are more exposed to the leverage effect. Acharya *et al.* (2013) got similar results indicating the importance of operating performance, leverage, and sector exposure. Furthermore, abnormal performance explains 34% of the average deal IRR, while leverage contributes for about 50%. The remaining 16% comes on the account of the firm's exposure to the sector or, as one may call it, market effects.

Heterogeneity in PE performance is also in part the result of skill rather than pure luck (Achleitner, Braun, & Engel, 2011). According to the authors, GPs' set of skills are crucial when it comes to entry and exit prices. More experienced and skilled GPs are able to time the market and negotiate the right price for their firms, resulting in higher returns on their investments. So, not only the skill of the entrepreneurial-minded CEO matters, but GPs' skills are at least equally important (Kaplan & Schoar, 2005). GPs whose funds outperformed the industry are highly likely to produce a persistent performance for their future funds. However, while Metrick and Yesuda (2010) found a slightly negative relation between past experience and revenue per dollar, Acharya *et al.* (2013) show that GPs' past experience also has another effect. Their results imply that GPs who previously were consultants or industry managers outperform deals based on internal-value creation. And GPs with a past in banking or accountancy are the outperformers of significant mergers and acquisitions. In addition, another study also pointed out that specific human capital of first-time VC fund management teams affect performance in terms of Portfolio Company exits (Zarutskie, 2010). For instance, experience as a venture capitalist or executive at a start-up will play a part in facilitating exits. But industry-specific human capital in strategy and management consulting made the greatest contribution to the fraction of exits. Lower fractions of company exits, however, are observed in VC fund management teams with more general human capital in business administration. One might argue that proper knowledge of the target firm's industry apparently is inconceivable. However, investment managers allow themselves to be flexible as they are prepared to deviate from their style if it will yield higher returns (Cumming, Fleming, & Schwienbacher, 2009). Furthermore, another link which can be drawn between past and present is performance and funding. Assembling the desired amount of funding could be a stressful process for most PE firms. However, PE firms with a satisfying past performance probably survive the funding round in a more relaxed manner since a concave relation between past performance and funding exists (Kaplan & Schoar, 2005). Moreover, new partnerships are more likely to be built in times after the industry has performed well, but partnerships raised in boom times are less likely to raise follow-on funds indicating that these funds performed poorly.

2.4 Crossing Borders

PE set his first steps in the U.S. in the 1980s reaching all corners of the world nowadays. Next to the U.S., PE exists in large numbers in the U.K. and to a lesser extent in Europe and Asia. The admirable growth of this industry, however, has still not come to its end as enough possibilities to expand are available. At first sight, PE firms should target countries with superior legal rights and better developed stock markets as those characterize enhanced VC performance (Nahata, Hazarika, & Tandon, 2014). The legal origin of a country and the quality of its institutions is decisive for value creation (Ahern, Daminelli, & Fracassi, 2012). According to empirical evidence, derived across 49 countries, LBOs are most likely to occur in countries with stronger creditor rights (Cao, Cumming, Qian, & Wang, 2010). One might argue that a significant downside of better protection for creditors translates, in theory, in reduced premiums paid to equity investors resulting in less wealth transfers. Although the attractiveness of LBOs in countries with stringent creditor protection would guess otherwise, cross-border deals are more likely to occur in countries with weaker creditor protection. It appears that PE firms finance cross-border deals with capital originating from countries with strict legislation in order to temper the disadvantage of credit financing constraints and to benefit from credit across different credit-protection legislations (Cao, Cumming, Qian, & Wang, 2010). Moreover, concentrating only on the development of PE in Europe offers additional findings. A positive relationship is observed between investor protection and VC activity, but this was not the case for LBOs (Bedu & Montalban, 2014). Evidence indicates that LBOs have a strong correlation with weak employment protection and developed financial markets.

Besides differing creditor rights, there are plenty of other institutional differences fund managers have to overcome. It is most likely for managers involving in cross-border deals to set up local partnerships facing such challenges (Meuleman & Wright, 2011). Dependence on local partners, however, will decline with country-level and multinational experience of the PE firm. The proportion of investment banks in the deal-country will also reduce the likelihood of entering into local partnerships. Although one also might think of local offices, evidence suggests otherwise as a local office is in no way significantly related to reliance on local partners. However, the Asian PE market could be used as a textbook case for dealing with the lacking of an appropriate legal protection (Cumming, Fleming, Johan, & Takeuchi, 2010). Coherent with other studies, legal protection is also an important factor in shaping PE returns in Asia. Moreover, this study also sheds light on the magnitude of corruption affecting returns. While more legal protection positively influences returns, countries with higher corruptions rates generate higher returns. One might be dazed by these, to some degree contradictory, findings. However, the researchers are convinced that PE managers are able to force organizational changes which enlightens the costs of corruption substantially.

Initiating Buyouts and takeovers all over the world also entails overcoming cultural differences. Integration is key in a successful M&A transaction as it is pointed out by several studies shedding light on M&A deals. Cultural difference is a major factor in the failure of such deals and illustrates the importance of parity during the integration process (Olie, 1990). It is important for the management of both parties to realize that the way they handle cultural differences could be decisive in many stages of the process, including financial performance and value creation. Even differences in management style in domestic acquisitions have a negative impact on the firm's post-buyout performance (Datta, 1991). Moreover, Chatterjee *et al.* (1992) revealed a strong inverse relationship between perception of cultural differences and shareholder gains. Meaning that large cultural differences lead to less value creation for shareholders. Ahern *et al.* (2012) emphasize the effect of cultural distance once again in their study. The authors divide national culture into three dimensions; trust, hierarchy, and individualism. Following the evidence, we can see that the likelihood of a successful deal, in terms of synergies, drops with larger discrepancy in national culture. However, according to others, one seemingly should cherish cultural discrepancies (Chakrabarti, Gupta-Mukherjee, & Jayaraman, 2009). This study provides in evidence for a positive relationship between performance and cultural distance in the long-run. In line with these findings, Nahata *et al.* (2014) argue that cultural disparity between the Portfolio Company and its lead investor improves VC performance. Further analysis reveals that VC funds intensify their screening of Portfolio Companies with more cultural differences leading to improved VC performance. Which could be a major driver of their successes.

Another development in the literature concerns signalling of PE firms and what the market's perception is. When M&A is considered by U.S. firms, without PE involvement, domestic targets are more rewarding than cross-border targets in terms of announcement return and operating performance for the acquirer (Moeller & Schlingemann, 2005). Interesting for us to see is that PE backing in cross-border deals is interpreted by the market as a positive signal in the form of higher announcement returns (Humphery-Jenner, Sautner, & Suchard, 2017). This phenomenon appears especially applicable if the target is located in a poor information environment. Reason is the experience and network of the PE firm becoming available at firms' discretion, which is highly appreciated by the market. The market's perception is not misplaced as evidence indicates that the acquirer's operating performance significantly improves when a target is located in a poor information country. Besides increasing the likelihood of value creation, it also decreases the likelihood of value destruction.

2.5 Concerns of Society and Externalities for the Industry

The PE industry is step-by-step gaining territory across all continents raising the amount of concerns with it. A lot of people consider the general PE firm as the strict owner who

does not allow budgets to exceed, inefficiencies to appear, and losses to occur. In other words, positive returns must be delivered no matter what. The controversy is understandable since some individuals have become very wealthy and others lost their job as a result of LBOs (Opler & Titman, 1993). This view is advocated by Watt (2008), who argues that employment, working conditions, and wages suggest that workers in PE firms' Portfolio Companies are squeezed harder and that they are one source of value and profit for PE firms. Another accusation aimed at PE firms is that they are only focused on short-term returns by asset stripping and profiting from the reselling of those assets (Wright, Amess, Weir, & Girma, 2009). In addition, the undesired amount of leverage and off-shore holding companies to reduce tax payments and increase profits is not praised by society as well. It is believed that such large amounts of debt significantly increase the probability of financial distress and bankruptcy (Wilson & Wright, 2013).

However, there is plenty of literature handling the issues pointed out by society. Kaplan (1989b) was one of the first to shed more 'empirical' light on the employment-discussion by showing that post-Buyout employment increases. Slightly contradictory, Lichtenberg and Siegel (1990) did found decreasing post-buyout employment, but only for the so called non-blue-collar workers. An explanation for the conflicting evidence could be the lack of systematically controlling for endogeneity (Amess & Wright, 2007). If the LBO is treated as endogenously determined, rather than a randomly occurring event, results show no difference in employment levels between LBO and non-LBO companies. This is also the case when the LBO is financed by PE. Furthermore, according to Davis *et al.* (2011), job losses are occurring following LBOs, but are mainly concentrated among Public-to-Private transactions. The study also show that employment growth was already smaller at LBO firms than non-LBO firms pre-Buyout. Employment levels decrease 3 percent further in the first two years and 6 percent over five years in the post-Buyout phase. However, important is to note that LBO firms also create new jobs at new establishments, leaving a modest net impact on employment. While these studies examined the U.S. PE firms, Goergen *et al.* (2011) made different findings for U.K. PE firms. Namely, the first year after the Buyout is paired with significant decreases in employment. The assumption is that laying-off employees is an important tool boosting operational performance. Gains in productivity and efficiency are supposed to fill the gap created by cuts in employment. However, Goergen *et al.* (2011) fail to identify a subsequent increase in productivity and profitability. PE firms are better known as asset managers rather than labour managers in order to increase profitability (Folkman, Froud, & Williams, 2009).

Furthermore, not only PE, but the complete Financial industry in general is associated with short-termism. However, it is unjustifiable to measure the complete industry with the same yardstick. While theoretically the holding period lays between 3 and 5 years, PE firms keep companies more often in their portfolio more than 5 years

(Strömberg, 2007). Other studies also lack in providing evidence for short-termism in PE (Cumming, Siegel, & Wright, 2007). Furthermore, criticising PE by claiming that large amounts of debt significantly increase financial distress and bankruptcy is perhaps more conceivable than the previous. Especially deals in the later 1980s were believed to be the worst performers caused by the intense popularity reaching extreme activity levels in the Buyout market, most likely driven by the appealing costs of borrowing (Axelson, Jenkinson, Strömberg, & Weisbach, 2009). These years are marked by practitioners' rush to participate in the highly rewarding Buyout market. However, misdoubt regarding the success rate of these deals seems misplaced as it is found that deals in the later 1980s were not less successful than their peers (Andrade & Kaplan, 1998). The emphasis of the study was placed on changes in the value of distressed LBOs. Evidence shows, on average, no decline in the value of distressed LBOs indicating that it is even highly likely for distressed and non-distressed LBOs to create value. Proof is provided showing that Buyout firms outperformed their peers by means of higher growth, productivity, profitability, and improved working capital management during the recent global recession (Wilson, Wright, Siegel, & Scholes, 2012). Coherently, PE Buyouts are no more prone to insolvency relative to non-Buyouts (Wilson & Wright, 2013). These findings indicate that leverage is not the characteristic that distinguishes failed Buyouts from those surviving.

Contradictory and to a lesser degree counterintuitive evidence puts the concerns to a rest. Even better, study reveals that PE presence creates positive externalities as it can be effective in stimulating growth and boosting performance across the industry (Aldatmaz & Brown, 2016). In more detail, Aldatmaz and Brown (2016) searched within countries for changes in the performance of publicly traded firms operating in industries with PE presence. Their findings indicate that publicly traded firms are subject to positive externalities in sense of labour productivity, employment, profitability, and capital expenditures. In addition, externalities are not only limited to publicly traded firms within the same industry (Bernstein, Lerner, Sorensen, & Strömberg, 2016). As a matter of fact, results reveal that industries with PE activity grow faster in its entirety measured by total production, value added, total wages, and employment. A little downfall is that causality is hard to prove as one might advocate for reverse causality. However, PE investments do not need to be more profitable in growing industries since this growth should be incorporated in the price.

2.6 Hypotheses

In order to answer the research question properly, the focus will be on four hypotheses which are shortly introduced further. However, first, important cultural differences managers can have to face during a cross-border Add-on will be mentioned. One of the leading researchers with numerous academic publications mapping the cultural landscape

is Geert Hofstede. According to Hofstede (1884), a country's culture can be derived back to four cultural dimensions based on fundamental issues in human societies. Each country gets an index score for each dimension based on a comprehensive survey giving us a sound idea of a country's cultural values. These four dimensions are 1) Individualism versus Collectivism, 2) Large versus Small Power Distance, 3) Strong versus Weak Uncertainty Avoidance, and 4) Masculinity versus Femininity.

The first dimension, individualism versus collectivism, can be derived back to "I" versus "us" and tells us more about interdependence among society (Hofstede, 1984). In other words, it says something about the positioning of one towards the rest of society. Economically developed countries have Individualist societies, while less economically developed countries are in almost all cases the collectivists. Countries positioned as "individualism" have a loose society in which everyone take care of themselves and their immediate family only. Collectivism, on the other hand, stands for a society in which individuals are looked after, or can expect to be looked after, by their relatives, clan, or other in-groups in exchange for unquestioning loyalty. This has its implications in several areas for organisations and businesses. For instance, employer-employee relationships differ across countries based on their society's positioning in the first dimension. This relationship is seen as purely a business relationship in Individualist societies, while in collectivist societies there is also a moral component (Hofstede, 1984). Also, this moral component is recognizable in business relationships between companies. It is common in Individualist societies not to mix personal relationships with business, while Collectivist societies find it more challenging to suppress their emotions. Another difference is the degree of openness inside an organization. For Individualist societies, openness and directness to each other is valued more than collectivist societies. For the latter, openness and directness could lead to disharmony and one should keep harmony in place and protect their social framework. Which, in most cases, necessitates withholding important information.

Power Distance reveals a society's acceptance of unequally distributed power in institutions and organisations (Hofstede, 1984). Although to a lesser degree than the first dimension, a distinction can be made between economically developed and emerging markets. Smaller Power Distances are very common in developed countries, while Large Power Distances exist in less developed countries. A Large Power Distance means that people accept the hierarchical order and demand no justification, while Small Power Distance societies are not hesitant in demanding justification and power equalization. This dimension largely affects the work relationship between a superior and its subordinate and has consequences for the construction of institutions and organizations in a country. In countries with a Small Power Distance, superiors often consult their subordinates and stimulate independence, summarized as consultation-ism (Hofstede, 1984). Larger Power

Distance countries, however, follow the norm of, so called, paternalism. Meaning that a superior should behave like a good father or mother towards his subordinate, which in return never should openly dispute his superior and show respect and obedience.

The degree of uncertainty avoidance reveals a society's perception of uncertainty and ambiguity (Hofstede, 1984). Societies with strong uncertainty avoidance rely on a strict code of conduct and are not impressed by deviant persons and ideas. Being in control of the future is highly valuated in strong uncertainty avoiding societies. Weak uncertainty avoidance, on the other hand, is accompanied with being suggestible to deviant ideas and appreciating practice more than principles. One can argue that, in some way, these kinds of societies just let the future happen. Moreover, uncertainty avoidance is indicative for the degree of formalization, standardization and ritualization inside an organization (Hofstede, 1984). Strong Uncertainty Avoiding societies have an emotional need to formalize structures, standardize procedures, and ritualize behaviour inside organizations. As one could guess, the degree of uncertainty avoidance has implications for the way institutions and organizations are build. Subsequently, it is very likely that the communication fails if one is not acquainted with the deviating practices of an Add-on.

In the last dimension, neither masculinity or femininity has something to do with the biological sexes. Instead, it stands for the allocation of social roles to the sexes (Hofstede, 1984). Masculinity characterizes a society with a preference for achievement, heroism, assertiveness, and material success. Institutions in societies with close ties to masculinity are characterized with an assertive mentality becoming clearly "performance societies" and is also valued as such by their women. Feminine societies, on the other hand, are associated with a preference for relationships, modesty, caring for the weak, and the quality of life. In societies positioned closer to femininity, men can take relationship-oriented, modest, caring roles and caring for all members is important for both, men and women. Their institutions, therefore, will be built accordingly, following a caring, quality-of-life mentality. Societies like these, are qualified as "welfare societies". A consequence hard to escape is the failure of management practices when both views rendezvous during a M&A process.

As one can understand, overcoming cultural distances successfully can be a very costly process. This is especially the case during the integration phase following M&A deals. The essence of valuation models used to determine EV, are financial forecasts based on multiple assumptions and expectations about the future. One of the assumptions used in a pricing model is the amount of costs related with the integration. Subsequently, based on EV, the acquirer determines the price which he is willing to pay for the target company. My expectation is that cross-border Add-ons will experience a more costly integration process relative to domestic Add-ons. Accordingly, GPs will incorporate this in their bidding process, leaving us with the following hypothesis:

H1: The Entry Price for cross-border Add-on firms is lower than domestic Add-on firms.

The next three hypotheses apply to the operational performance of the Add-ons, namely Sales, EBITDA and EBITDA-margin relative to sales. Tackling cultural differences successfully would mean that the Add-on can concentrate fully on its businesses as soon as possible. As a result, Sales growth, EBITDA growth, and EBITDA-margin expansion would develop similar for cross-border as for domestic Add-ons. Following Nahata *et al.* (2014), who argue that cultural differences add to VC success, I would at least expect to see similar growth rates in Sales and EBITDA for cross-border and domestic Add-ons. Also, the findings of Chakrabati *et al.* (2009), in which a positive relation is found between cultural distance and long-term performance, add power to my expectations.

H2: Sales growth is not smaller for cross-border Add-on firms than for domestic Add-on firms.

H3: EBITDA growth is not smaller for cross-border Add-on firms than domestic Add-on firms.

H4: EBITDA-margin growth is not smaller for cross-border Add-on firms than domestic Add-on firms.

3. DATA

This chapter is dedicated to the description of the data sample, from collecting to summary statistics. Table 6 in the appendix contains a short description of the steps taken and Table 7 in the appendix describes each variable used in this research. The vast majority of the data is hand-collected. Moreover, an extra set of tables are added to the appendix representing the summary statistics and correlation matrix of a slightly smaller data sample only with European and North-American Platform firms. These set of tests are included to examine regional differences in the operating performance. Tables 13 and 14 cover, respectively, the summary statistics and correlation matrix of the smaller dataset with 51 observations.

3.1 Data Collection

While constructing the dataset, several data sources were used. The first objective was to identify acquisitions conducted by PE firms. Subject to this research are deals with a value more than $100 million and originating from the period 2006 to 2015. A total of 2129 deals were retrieved from ThomsonOne in which the acquiring parent or the ultimate parent was a Financial Sponsor. Every deal is treated with prudency to locate deals in which the B&B-

Table 1

Country Coverage

Countries represented throughout this research are presented below.

Country	Target	*Cross-border*	*Domestic*	Country	Acquirer	*Cross-border*	*Domestic*
Australia	1	*0*	*1*	Australia	1	*0*	*1*
Brazil	1	*0*	*1*	Brazil	1	*0*	*1*
Canada	1	*1*	*0*	Canada	0	*0*	*0*
Denmark	1	*1*	*0*	Denmark	3	*3*	*0*
Finland	4	*3*	*1*	Finland	1	*0*	*1*
France	3	*0*	*3*	France	4	*1*	*3*
Germany	3	*1*	*2*	Germany	3	*1*	*2*
Hong Kong	0	*0*	*0*	Hong Kong	1	*1*	*0*
Indonesia	2	*1*	*1*	Indonesia	1	*0*	*1*
Ireland-Rep	1	*0*	*1*	Ireland-Rep	1	*0*	*1*
Italy	4	*0*	*4*	Italy	4	*0*	*4*
Luxembourg	2	*2*	*0*	Luxembourg	0	*0*	*0*
Netherlands	0	*0*	*0*	Netherlands	1	*1*	*0*
Norway	2	*1*	*1*	Norway	1	*0*	*1*
Spain	3	*3*	*0*	Spain	0	*0*	*0*
Sweden	2	*1*	*1*	Sweden	6	*5*	*1*
Switzerland	1	*1*	*0*	Switzerland	3	*3*	*0*
Turkey	1	*1*	*0*	Turkey	0	*0*	*0*
United Kingdom	12	*6*	*6*	United Kingdom	8	*2*	*6*
United States	11	*2*	*9*	United States	16	*7*	*9*
	55	*24*	*31*		55	*24*	*31*

strategy was applied by the PE firm. Important was that we had to be 100% confident that the deal was an Add-on transaction motivated by the B&B-strategy. The deal was excluded by the smallest sign of dubiety. Therefore, Zephyr is used to double-check certain deals, leaving behind 272 deals. However, of these 272 deals, only 55 deals contained complete information on accounting variables necessary for this research. Meaning that information on the EV/EBITDA-multiple, Sales (operating turnover), EBITDA and Net Debt all had to be complete. This step required the hand-collection of the relevant accounting data from Orbis and other resources when Orbis had none or incomplete details. These other resources were mainly the 'investors-relation' page on the website of relevant target firms. Depending on the holding period, the accounting data covers the period 2006 to 2017.

Information on PE *Fund Size* and *Financial Sponsor Age* is retrieved from ThomsonOne. The World Bank is used as a source for data on *GDP* and *Creditor Rights*, while Transparency International is used for the *Corruption Perception Index*. Cao *et al.* (2010) has been invoked to determine whether the Target country has a *Market or Bank Based Financial System*. Furthermore, to calculate industry medians, Datastream was used to compile accounting data on S&P1200 constituents. Meanwhile, Bloomberg is used to determine the *LBO Spread*, which is the spread in the yield between the 10-year U.S. Treasury bond and corporate bonds in Moody's BAA bond index. As last, the *Hofstede Cultural Dimensions* are retrieved from the website of Geert Hofstede. Ultimately, this

resulted in a dataset with 55 deals representing 20 countries, either as acquirer or target country. Table 1 can be appealed upon for an overview of the countries. Herein, we can see that the U.S. are the most often occurring country throughout this dataset, 11 times as target country and 16 times as acquirer country. Moreover, it must be noted that the continent Europe also has an overbalance throughout the dataset, returning 39 times as target and 35 times as acquirer.

Table 2
Summary Statistics

Descriptive statistics of Deal Price and Operating Performance variables are described beneath per Dealtype and for the full sample. *EV* and *Fund Size* is in million dollars.

	Cross-Border				Domestic			
	Mean	St. Dev.	Median	Obs.	Mean	St. Dev.	Median	Obs.
EV/EBITDA	23.9439	30.14087	14.1472	24	0.7691	109.9866	9.3533	31
Sales Growth	0.0149	0.27899	-0.0115	24	0.0119	0.1315	0.0095	31
EBITDA Growth	-0.1763	0.6142	-0.0778	24	0.0482	0.7342	0.0005	31
EBITDA-margin @entry	0.2334	0.1801	0.2382	24	-3.2513	19.5107	0.1813	31
EBITDA-margin @exit	0.2687	0.3004	0.1935	24	0.2499	0.2473	0.1732	31
EV	1387.95	3146.212	319.00	24	545.06	527.9	389.44	31
Financial Sponsor Age	30.7	12.0	29.0	24	28.5	8.2	28.0	31
Fund Size	4298.03	3457.03	4045.12	24	6861.48	7075.41	3500.00	31
Debt/EBITDA	5.0520	7.0525	2.5970	24	16.4102	64.4584	2.6518	31
LBO Spread	0.0261	0.0059	0.0264	24	0.0267	0.0083	0.0268	31

	Full Sample			
	Mean	St. Dev.	Median	Obs.
EV/EBITDA	10.8818	85.1003	10.0651	55
Sales Growth	0.0132	0.2068	0.0088	55
EBITDA Growth	-0.0498	0.6876	-0.0247	55
EBITDA-margin @entry	-1.7307	14.6471	0.2076	55
EBITDA-margin @exit	0.2581	0.2693	0.1786	55
EV	912.88	2132.81	353.00	55
Financial Sponsor Age	29.43	9.96	28.00	55
Fund Size	5742.88	5877.78	4012.48	55
Debt/EBITDA	11.3017	48.5825	2.6518	55
LBO Spread	0.0264	0.0073	0.0267	55

3.2 Descriptive Statistics

The Data sample of 55 deals is divided across 24 cross-border Add-ons and 31 domestic Add-ons. Table 2 contains the summary statistics of the complete sample. The first striking observation is the difference between the means of the *EV/EBITDA* multiple. At first sight, one might say that domestic Add-ons' prices are much beneath those of cross-border Add-ons. Cross-border deals have a mean of 23.94, while domestic has a mean of only 0.77. However, it must be noted that a very large Standard Deviation is present in the *EV/EBITDA* multiple across domestic Add-ons (109.99). Another remarkable observation is the negative mean (-3.25) in domestic Add-ons' *EBITDA-margin at entry*. However, there is

Table 3

Correlation Matrix

	log EV/EBITDA	log Sales Growth	log EBITDA Growth	EBITDA-margin delta	log EBITDA-margin @entry	log EV/EBITDA industry	log Sales Growth industry	log EBITDA Growth industry	EBITDA-margin delta industry	log EBITDA-margin @entry industry	log EV	Financial Sponsor Age	log Fund Size	log Debt/EBITDA	LBO Spread	log GDP Growth	Financial System	Creditor Rights	Corruption Perception Index	log Hofstede Cultural Dimension
log EV/EBITDA	1.0000																			
log Sales Growth	0.0472	1.0000																		
log EBITDA Growth	0.0966	0.3721	1.0000																	
EBITDA-margin delta	0.1100	-0.4773	0.2610	1.0000																
log EBITDA-margin @entry	0.3347	0.0282	-0.0136	-0.1266	1.0000															
log EV/EBITDA industry	0.0814	-0.0723	0.1529	0.0251	0.0454	1.0000														
log Sales Growth industry	-0.1568	0.2878	0.0402	-0.2906	-0.1718	-0.1309	1.0000													
log EBITDA Growth industry	-0.1406	0.1543	-0.0088	-0.1977	-0.0702	-0.1336	0.8631	1.0000												
EBITDA-margin delta industry	0.0505	-0.0423	0.0457	0.0608	0.0794	-0.0516	0.0248	0.3456	1.0000											
log EBITDA-margin @entry industry	0.0178	-0.1258	-0.1776	-0.0996	0.2387	0.0675	-0.0737	-0.1101	-0.2126	1.0000										
log EV	0.1370	0.1185	0.1382	-0.0078	-0.0616	0.0234	0.1001	0.0961	-0.0849	-0.1681	1.0000									
Financial Sponsor Age	-0.0647	0.0539	0.0143	-0.1071	0.0973	0.0494	0.3771	0.2573	-0.1281	0.0640	0.0172	1.0000								
log Fund Size	0.1167	0.1115	0.0407	-0.1786	0.0650	0.0075	-0.1011	-0.0724	0.1045	0.0682	0.1205	0.1381	1.0000							
log Debt/EBITDA	0.0557	-0.1166	-0.0075	0.2216	-0.1495	-0.0755	-0.0719	-0.1149	-0.2060	0.1267	0.1189	-0.0840	0.0181	1.0000						
LBO Spread	-0.1443	-0.0241	-0.0779	0.1715	0.0956	-0.0879	-0.2475	-0.0571	0.3124	-0.0618	-0.0676	-0.0366	0.1758	-0.0492	1.0000					
log GDP Growth	-0.1320	0.4935	0.0953	-0.3030	-0.1307	-0.0783	0.5587	0.5236	-0.0378	-0.1945	0.2048	0.2018	0.0885	-0.1218	-0.0435	1.0000				
Financial System	-0.0254	0.1525	0.0722	-0.1911	-0.2596	0.1432	0.0209	-0.1334	-0.1140	-0.0983	-0.0294	-0.2260	0.0098	0.0542	-0.3563	0.2767	1.0000			
Creditor Rights	-0.0542	0.0021	-0.0266	-0.0358	-0.3463	0.1985	0.1373	-0.0472	-0.2156	-0.0818	-0.0091	-0.0456	-0.0768	0.1575	-0.3427	0.2872	0.7397	1.0000		
Corruption Perception Index	0.0650	-0.0925	-0.1145	-0.0991	-0.2165	0.1157	0.1281	0.0251	-0.1156	0.0815	-0.0283	0.1142	0.0333	-0.1009	-0.3591	0.0288	0.2625	0.5791	1.0000	
log Hofstede Cultural Dimension	-0.0455	-0.0284	-0.0815	-0.0398	-0.0251	-0.3319	0.0412	0.1605	0.0762	0.0012	-0.0450	-0.0273	0.0120	-0.0875	0.1096	0.0785	-0.2119	-0.1670	-0.1874	1.0000

again a very high Standard Deviation present. Another eye-catching statistic is the difference in *EV* telling us that cross-border Add-ons, on average, are larger deals compared with domestic Add-ons. Also, cross-border deals tend to be done by smaller funds on average, while the opposite is true based on the median. Seemingly, slightly more experienced PE firms in terms of age are engaged in cross-border deals. Furthermore, a serious threat to many data sets is the possibility of multicollinearity. Table 3 projects the correlation between all variables which can give us a first impression of this possibility. Other than the high correlation between *log Sales Growth industry* and *log EBITDA Growth industry,* no concerns arise. Regarding that one observation between the respective variables (0.8631), none of the regressions will contain both variables, so that no real threat of multicollinearity is among the data set.

4. METHODOLOGY

This chapter will be dedicated to laying out the methodology of this research. Given the similarities in the hypotheses, the methodology of this study will be closely related to Achleitner & Figge's (2014) methodology. For each hypotheses, regressions will be given and variables will be explained. Also, Table 7 in the appendix contains definitions for each variable used in this research.

4.1 Deal Price

The first hypothesis on deal pricing will be tested with an OLS regression model with the logarithm of the EV/EBITDA multiple at entry, $\log \frac{EV}{EBITDA_i}$, as dependent variable. The explanatory variable will be the dummy variable $Border\ Dummy$, with a value of one equalling a cross-border Add-on and a zero indicating a domestic Add-on. Subsequently, I will add the EV/EBITDA multiples, $\log \frac{EV}{EBITDA_{Industry}}$, of public industry benchmarks at entry year as a control variable. Moreover, to control for any size effects, the logarithm of EV at entry year, $\log EV_i$, will also be included. In addition, EBITDA growth, $\log(EBITDA\ growth_i + 1)$, is included to account for the positive correlation of the firm's growth prospects with the EV/EBITDA multiple.

Moreover, skill and experience of the financial sponsor will be controlled for by using its age at entry, $Fincancial\ Sponsor\ Age_i$, as it can have an effect on PE deals (Kaplan & Schoar, 2005). We have also seen that fund returns as well as operating performance is related to fund size (Driessen, Lin, & Phalippou, 2007; Humphery-Jenner, 2012). Therefore, I have chosen to include the logarithm of the fund size, $\log Fund\ Size_i$, to control for any fund size effects. Subsequently, study shows that leverage has a strong relationship with Buyout prices (Axelson, Jenkinson, Strömberg, & Weisbach, 2009). Therefore, $\log \frac{Debt}{EBITDA_i}$ at entry is included as control variable to control for leverage effects. Moreover,

we have seen that value creation among PE investments is partly driven by its exposure to certain market conditions (Achleitner, Braun, Engel, Figge, & Tappeiner, 2010). A very significant one is the credit market condition, as it can determine PE activity and affect the pricing of Buyouts (Axelson, Jenkinson, Strömberg, & Weisbach, 2009). For that reason, $LBO\ spread_i$, is included to proxy credit market conditions to control for its effect on Buyout pricing. The $LBO\ spread_i$ will be the yield spread between corporate bonds in Moody's BAA bond index and the risk free rate in the quarter before the transaction, which is the 10-year U.S. bond. Next, macroeconomic factors can affect the performance of PE investments as well. A plausible reasoning would be that favourable macroeconomic conditions attract the attention of PE firms believing they can benefit from a country's economic growth. Therefore, to control for macroeconomic factors, the logarithm of the target country's GDP growth will be included as $\log(GDP\ Growth_i + 1)$.

Moreover, $Market\ Based\ Financial\ System_i$, $Creditor\ Rights_i$, and $Corruption\ Perception\ Index_i$ are institutional control variables, whereas $\log(Hofstede\ Cultural\ Distance_i)$ is used to control for cultural factors. As mentioned in the literature review, institutional factors can have an effect on deal performances and, therefore, are included in the regression (Cao, Cumming, Qian, & Wang, 2010; Cumming & Walz, 2010; Cumming, Fleming, Johan, & Takeuchi, 2010). $Market\ Based\ Financial\ System_i$ is a dummy variable assigned with the value of 1 if the deal took place in a country with a market based financial system, opposed to a bank based financial system. $Creditor\ Rights_i$ and $Corruption\ Perception\ Index_i$ are index numbers outlining the quality of creditor rights and the magnitude of corruption in a country, respectively. Following Chakrabarti *et al.* (2009), cultural differences affect deal and company performance and justifies the inclusion of the Hofstede Cultural Distance metric to capture cultural differences. In other words, differences between countries across Hofstede's four cultural dimensions will be wrapped up into one variable to ultimately use its logarithmic value in the regression. The mathematical expression of this variable looks as follows:

$$Hofstede\ Cultural\ Distance_i = \frac{\sqrt{\sum_{h=1}^{4}\left(S_{A,h} - S_{T,h}\right)^2}}{4}$$

Herein, $S_{A,h}$ is the index score of the acquirer's country in dimension d, whereas $S_{T,h}$ is the index score for the target company's country in dimension h. As a result, the Hofstede Cultural Distance value for Add-on i will be delivered to us. Furthermore, the variables $Industry\ Dummy_i$ and $Time\ Dummy_i$ are included to control for any industry and time specific effects. Final, ε_i is the error term in the model. This results in the following regression, with Add-ons represented by i and β serving as interaction term with the respective variables:

$$\log\frac{EV}{EBITDA_i} = \alpha_i + \beta_1 * Border\ Dummy + \beta_2 * \log\frac{EV}{EBITDA_{Industry}} + \beta_3 * \log(EBITDA\ growth_i + 1) + \beta_4 * \log EV_i + \beta_5 * Fincancial\ Sponsor\ Age_i + \beta_6 * \log Fund\ Size_i + \beta_7 * \log\frac{Debt}{EBITDA_i} + \beta_8 * LBO\ spread_i + \beta_9 * \log(GDP\ Growth_i + 1) + \beta_{10} * Market\ Based\ Financial\ System_i + \beta_{11} * Creditor\ Rights_i + \beta_{12} * Corruption\ Perception\ Index_i + \beta_{13} * \log Hofstede\ Cultural\ Distance_i + \beta_{14} * Industry\ Dummy_i + \beta_{15} * Time\ Dummy_i + \varepsilon_i \quad \textbf{(1)}$$

4.2 Operating Performance

The next three hypotheses on operating performance will also be tested with an OLS regression model. Proxies for operating performance will be Sales growth ($\log(Sales\ growth_i + 1)$), EBITDA growth ($\log(EBITDA\ growth_i + 1)$), and EBITDA margin growth ($\log EBITDA\ margin\ delta_i$). These will capture, respectively, the growth of sales, EBITDA growth and EBITDA margin expansion between entry and exit. As we have seen earlier, the explanatory variable is the border dummy, $Border\ Dummy_i$, for each regression. Next, industry effects will be controlled for by including the logarithm of the median industry sales growth, $\log(Sales\ growth_{Industry} + 1)$, in regression (2). In the same manner, the logarithm of EBITDA growth, $\log(EBITDA\ growth_{Industry} + 1)$, is included in regression (3). In regression (4), the industry's EBITDA margin expansion between entry and exit date, $\log EBITDA\ margin\ delta_{Industry}$, is used to control for industry effects. Regressions (2), (3), and (4) will also contain the EBITDA margin at entry, $\log EBITDA\ margin_i$, to control for the smaller likelihood for profitable firms to further expand their margins. And as we have seen in the literature review, deal size can affect the way value is created (Nikoskelainen & Wright, 2007; Achleitner, Braun, Engel, Figge, & Tappeiner, 2010). By including the logarithm of EV at entry, $\log EV_i$, the size effect will be controlled for.

Another familiar control variable is the age of the financial sponsor at entry to control for any skill effects. Moreover, the logarithm of fund size at entry will again be included to control for the relationship between fund size and value creation (Driessen, Lin, & Phalippou, 2007). Following the literature, leverage is an important value driver for PE investments (Jensen, 1986; Guo, Hotchkiss, & Song, 2011). To control for the effect of leverage on the operational performance of Portfolio Companies, the debt-to-EBITDA ratio of the Portfolio Company at entry year, $\log\frac{Debt}{EBITDA_i}$, is included in the regression. Also, as before, a proxy for credit market conditions, $LBO\ spread_i$, will be used to control for market effects. Next is the inclusion of the target country's GDP growth realized between investment entry and exit. It is highly likely that companies benefit from the economic prosperity in a country and experience more challenges in value creation in economically turbulent years. The inclusion of GDP growth will capture that effect.

Neither are the institutional and cultural control variables missing to control for their effect on operating performance. Final, industry and time dummies will be included for industry and time specific effects and ε_i is the error term. So, the regressions will take the following shape in which i represents each Add-on and β functions as the coefficient of the respective variables:

$$\log(Sales\ growth_i + 1) = \alpha_i + \beta_1 * Border\ Dummy_i + \beta_2 * \log(Sales\ growth_{Industry} + 1) + \beta_3 * \log EBITDA\ margin_i + \beta_4 * \log EV_i + \beta_5 * Financial\ Sponsor\ Age_i + \beta_6 * \log Fund\ Size_i + \beta_7 * \log \frac{Debt}{EBITDA_i} + \beta_8 * LBO\ spread_i + \beta_9 * \log(GDP\ Growth_i + 1) + \beta_{10} * Market\ Based\ Financial\ System_i + \beta_{11} * Creditor\ Rights_i + \beta_{12} * Corruption\ Perception\ Index_i + \beta_{13} * \log Hofstede\ Cultural\ Distance_i + \beta_{14} * Industry\ Dummy_i + \beta_{15} * Time\ Dummy_i + \varepsilon_i \quad \textbf{(2)}$$

$$\log(EBITDA\ growth_i + 1) = \alpha_i + \beta_1 * Border\ Dummy_i + \beta_2 * \log(EBITDA\ growth_{Industry} + 1) + \beta_3 * \log EBITDA\ margin_i + \beta_4 * \log EV_i + \beta_5 * Financial\ Sponsor\ Age_i + \beta_6 * \log Fund\ Size_i + \beta_7 * \log \frac{Debt}{EBITDA_i} + \beta_8 * LBO\ spread_i + \beta_9 * \log(GDP\ Growth_i + 1) + \beta_{10} * Market\ Based\ Financial\ System_i + \beta_{11} * Creditor\ Rights_i + \beta_{12} * Corruption\ Perception\ Index_i + \beta_{13} * \log Hofstede\ Cultural\ Distance_i + \beta_{14} * Industry\ Dummy_i + \beta_{15} * Time\ Dummy_i + \varepsilon_i \quad \textbf{(3)}$$

$$\log EBITDA\ margin\ delta_i = \alpha_i + \beta_1 * Border\ Dummy_i + \beta_2 * \log EBITDA\ margin\ delta_{Industry} + \beta_3 * \log EBITDA\ margin_i + \beta_4 * \log EV_i + \beta_5 * Financial\ Sponsor\ Age_i + \beta_6 * \log Fund\ Size_i + \beta_7 * \log \frac{Debt}{EBITDA_i} + \beta_8 * LBO\ spread_i + \beta_9 * \log(GDP\ Growth_i + 1) + \beta_{10} * Market\ Based\ Financial\ System_i + \beta_{11} * Creditor\ Rights_i + \beta_{12} * Corruption\ Perception\ Index_i + \beta_{13} * \log Hofstede\ Cultural\ Distance_i + \beta_{14} * Industry\ Dummy_i + \beta_{15} * Time\ Dummy_i + \varepsilon_i \quad \textbf{(4)}$$

5. RESULTS

This chapter is dedicated to the description of the results. Interesting findings will be highlighted and briefly discussed and each hypothesis will be treated separately. All OLS regressions contain robust standard errors and can be found in Tables 4 and 5. Results without *Industry* and *Time Dummies* are available upon request. Since they brought no material changes to the regression results, it is decided not to include them in Tables 4 and 5. A detailed version with *Industry* and *Time Dummy* coefficients is located in the

appendix. Tables 9, 10, 11, and 12 correspond to, respectively, the *EV/EBITDA*, *Sales Growth, EBITDA Growth*, and *EBITDA-margin delta* regressions. Moreover, Tables 15 to 18 in the appendix cover results of the data sample with deals executed only by European and North-American Platform firms. These test are included to detect regional differences. Since they are not the main concern of this research, their coefficients are only briefly mentioned throughout this chapter. As you might recall from chapter 3 and Table 3, there were no worrying signs of multicollinearity detected by observing the correlation matrix. According to Variance Inflation Factor (VIF) metrics, on the other hand, certain care should be taken. However, omitting the troublesome variables is not a preferable measure as they contain economic significance. The results of the VIF metrics are available upon request.

5.1 Deal Price

The *EV/EBITDA* multiple shows certain signs which were, to some degree, expected to see. While no significant coefficients can be identified in regression 2 of Table 3, regressions 1, 3, and 4 suggest that *industry multiples* and *EBITDA Growth* significantly affect deal prices across the dataset. It is no surprise to see that deal prices are affected by *industry multiples*. One of the first steps in valuing a target is getting a sense of comparable companies' value, hence the relation with *industry multiples*. The size of the coefficient is quite pronounced and could be conceived as an excessive premium paid for Add-ons relative to their industry peers. To illustrate, the *EV/EBITDA industry* coefficient in regression 3 tells us that a 1% change in the industry multiple will lead to a 4.6% (4.5784) change in the EV/EBITDA of the Add-on, holding everything else constant. It is presumptive that the willingness to pay such premiums is motivated by Add-ons' strategic importance for the implementation of their B&B-strategy. Furthermore, the sign of the *EBITDA Growth* coefficient is positive and its significance might reflect PE firms' ability to price growth prospects. Considering that *EBITDA Growth* used to control for growth prospects is the realized CAGR over the holding period. One might suggest that PE firms have sufficient skills to make accurate assumption for their valuations. Both coefficients become even significant on a 5%-level after including more *deal control* and *macro- and market control variables* (0.7474 and 0.7136 in regressions 3 and 4, respectively).

Regressions 3 and 4 display more control variables and reveal quite a pronounced inverse relation between the *EV/EBITDA* multiple and *LBO Spreads*. Which is in line with theory suggesting that capital market conditions affect *Deal Prices* (Axelson, Jenkinson, Strömberg, & Weisbach, 2009). This can be explained by larger *LBO Spreads* indicating a rise of austerity across capital markets. Meaning that credit market conditions are weak and capital required for an acquisition will come at a higher cost. Subsequently, PE firms will become, not always by choice, more cautious when approaching a target. This will result in less competition and in lower prices paid for targets. In regressions 3 and 4 it even leads to a change of, respectively, -53% and -63% when a 1% change occurs in the

LBO Spread, held everything else constant. Now concentrating on *Fund Size,* large PE funds drive prices upwards noted by its slightly positive coefficient. With larger funds at their disposal, PE firms, obviously, can afford to step up their efforts. *GDP Growth,* on the other hand, contains a rather surprising coefficient (-5.340 and -2.9533 in regressions 3 and 4, respectively). After all, it is counterintuitive to suggest that companies become cheaper in times of countrywide prosperity. However, its effect remains insignificant and, therefore, decisive statements cannot be made.

Arriving at the main variable of interest, the *Border Dummy*, causes some ambiguity. Its significance becomes more pronounced in regression 3 after including *deal control* and *macro- and market control variables*. The positive sign suggests that cross-border Add-ons have a higher price tag attached to them, possibly due to cultural barriers. However, the inclusion of *institutional* and *cultural control variables* weakens its significance, whilst increasing its size. One might suggest that some explanatory power is adopted by the extra set of variables. It is quite a display of *Creditor Right* to change from a negative coefficient to a positive one across regressions 2 and 4 (-0.0250 and 0.0041). It can be noted that the coefficient in regression 2 is in line with theory as improving creditor rights should lead to less overvaluation, thus lower *EV/EBITDA* multiples (Cumming & Walz, 2010).

Furthermore, cultural barriers result in lower *Deal Prices* judging by the negative coefficient of *log Hofstede Cultural Dimension*. In regression 4 can be seen that the coefficient becomes even more negative, as it increases to -1.1866. Nevertheless, the first hypothesis has to be rejected as entry prices are not lower for cross-border deals across the data sample. In fact, instead of lowering entry prices as a result of higher costs coherent with cross-border integration, the opposite seems to hold with a positive relationship between *EV/EBITDA* and *Border Dummy*. Its coefficient in regression 3 indicates that the *EV/EBITDA* multiple of cross-border Add-ons is 0.94 ($10^{0.2895}$) higher than domestic Add-ons' multiple, held everything else constant. Several possibilities might explain the sign of the *Border Dummy*. It is feasible to think that PE firms pay a strategic premium for cross-border deals due to their strategic importance. This leaves the costs of cultural barriers being transcended by the strategic importance of the Add-on, or is just totally ignored. PE firms engaging in cross-border deals, in general, have already gained significant experience from previous deals. Often, this left them with valuable new business relations and useful resources for a deal in the future. In addition, PE firms in the dataset are also widely dispersed with offices all across the globe enabling them to gather local knowledge more easily about possible issues.

Still, it is possible to see differences in *Deal Prices* across regions. In other words, European Platform firms engaging in cross-border deals might lead to another price tag when compared with North-American Platform firms' deals. Also, domestic deals in the two

Table 4

OLS-regression results for *Deal Price & Sales Growth*

This table contains results of OLS cross-section regressions with standard errors for the *Deal Price* and *Sales Growth* hypotheses. Deals who are realized between 2006 - 2015 are included in the Data Sample. Accounting data covers the time period of 2006 - 2016. Standard errors are presented in parentheses. *Border Dummy* equals to 1 for Cross-border deals. *Financial System Dummy* equals to 1 if the target country has a Market Based Capital System. Further variable descriptions can be found in Table 6 located in the appendix. Regression results with *Industry* and *Time Dummy* coefficients can be found in Tables 9 and 10 for *Deal Price* and *Sales Growth,* respectively, located in the appendix.

	log EV/EBITDA					Sales Growth			
	(1)	**(2)**	**(3)**	**(4)**		**(5)**	**(6)**	**(7)**	**(8)**
Constant	-2.7910	-3.6230	-2.7965	-2.3428	Constant	-0.0129	0.0555	-0.1697	-0.0012
	(2.1789)	(2.8641)	(1.9223)	(2.6599)		(0.0377)	(0.1110)	(0.1512)	(0.2492)
Border Dummy	0.2363*	0.1944	0.2895***	0.298*	Border Dummy	0.0106	0.0329	0.0248	0.0345
	(0.1258)	(0.1712)	(0.1060)	(0.1682)		(0.0349)	(0.0402)	(0.0378)	(0.0407)
log EV/EBITDA industry	3.8718*	4.6165	4.5784**	4.7276	log Sales Growth industry	-0.6303	-0.1782	-0.8801	-0.7997
	(2.2350)	(2.7797)	(2.0728)	(2.8169)		(1.1006)	(1.5659)	(1.1464)	(1.6476)
log EBITDA growth	0.6758*	0.6247	0.7474**	0.7136**	log EBITDA-margin @entry	0.1030	0.1083	0.2001	0.1332
	(0.3588)	(0.3770)	(0.3234)	(0.3327)		(0.1891)	(0.2411)	(0.1782)	(0.2414)
log EV			-0.0357	-0.0576	log EV			0.0442	0.0370
			(0.1620)	(0.1901)				(0.0374)	(0.0514)
Financial Sponsor Age			-0.0070	-0.0092	Financial Sponsor Age			-0.0025	-0.0022
			(0.0061)	(0.0080)				(0.0015)	(0.0020)
log Fund Size			0.2514*	0.2799*	log Fund Size			0.0245	0.0209
			(0.1249)	(0.1527)				(0.0336)	(0.0436)
log Debt/EBITDA			-0.0539	-0.0631	log Debt/EBITDA			-0.0062	-0.0037
			(0.0928)	(0.1050)				(0.0206)	(0.0333)
LBO Spread			-52.5198***	-62.5297***	LBO Spread			2.8303	0.0990
			(3.5840)	(20.1074)				(4.6998)	(7.1887)
log GDP Growth			-5.3400	-2.9533	log GDP Growth			1.3489	1.4947
			(3.5840)	(6.3249)				(1.6837)	(1.8378)
Financial System Dummy		-0.0390		-0.1458	Financial System Dummy		0.1001		0.0532
		(0.2304)		(0.2884)			(0.1257)		(0.1425)
Creditor Rights		-0.0250		0.0041	Creditor Rights		-0.0161		-0.0145
		(0.0488)		(0.0747)			(0.0210)		(0.0274)
Corruption Perception Index		0.0470		-0.0409	Corruption Perception Index		-0.0014		-0.0021
		(0.0432)		(0.0562)			(0.0092)		(0.0207)
log Hofstede Cultural Dimension		-0.0462		-1.1866	log Hofstede Cultural Dimension		-0.0005		-0.0388
		(0.8597)		(0.8324)			(0.2842)		(0.3527)
Industry Dummy	YES	YES	YES	YES	Industry Dummy	YES	YES	YES	YES
Time Dummy	YES	YES	YES	YES	Time Dummy	YES	YES	YES	YES
Adjusted R-squared	0.159	0.086	0.250	0.179	Adjusted R-squared	0.032	0.000	-0.007	-0.105
Observations	55	55	55	55	Observations	55	55	55	55

Significance: p<0.1* p<0.05** p<0.01***

regions might lead to differing results as well. These observations are visible in Table 15 of the appendix. An additional dummy variable, *Region Dummy*, is created for these set of tests to detect the variation across both regions. It will equal to 1 for North-American Platform firms and 0 for European Platform firm. Note that also the base case scenario is changed from the situation in Table 4. In other words, the *Border Dummy* equals to 1 in case of a domestic Add-on throughout the table. This enables us to make a better comparison between European cross-border Add-ons and North-American cross-border Add-ons in all regressions of Table 15. Further, there are no material changes detected in the sign of all coefficients in Table 15 compared with Table 4, except some decreases in significance. The sign of the *Region Dummy* in regressions 3, 5, and 7 (0.2034, 0.1665, and 0.2813, respectively) suggest that European Platform firms pay less than their North-American counterparts, but not according to the coefficient in regression 1 (-0.0995). Moreover, regressions 2, 4, 6, and 8 provide us with more detail as it contains an interaction between the *Border Dummy* and the *Region Dummy*. North-American Platform firms pay less when engaging a cross-border Add-on, since *0 1 (cross-border*North-America)* coefficients are negatively related to the *Deal Price* across all regressions. However, the coefficient crawls closer to 0 when control variables are in place and is ultimately deficient to opt for differences between the two regions. One can find himself on stronger soil if one argues that European Platform firms pay less for their domestic deals relative to their cross-border deals. We can see this by the negative sign of the *1 0 (domestic*European)* interaction coefficient in regression 6 (-0.3490). However, the P-values in the bottom of Table 15 for the regressions 2, 4, 6 and 8 indicate no difference across regions. These represent P-values for the hypothesis for no difference in cross-border deals between European and North-American Platform firms. As it adopted a high p-value, the hypothesis of no difference cannot be rejected, but the signs of the interactions remain utterly interesting.

5.2 Operating Performance

It is plausible for the cultural distance between two companies to be reflected in the operating performance. As discussed in section 2, it is important to weapon yourself against cultural differences. Management teams should be aware of the dazzling consequences shown by various studies.

5.2.1 Sales Growth

Table 4 on the previous page contains results for the first operating performance measure, *Sales Growth.* The direction of certain coefficients is worth mentioning. To start with, it is remarkable to see that *Sales Growth industry* has a negative relationship with *Sales Growth.* Despite its insignificance, the expectation still should be to see that the

performance of the industry has a positive effect on sales numbers. However, the negative relationship could also indicate outperformance of the Portfolio Company relative to its industry peers. In more detail, as higher industry growth leads to lower growth for the Add-on, lower industry growth leads to a higher growth for the Add-on. We should be careful in making such suggestions, of course, as the standard error in some regressions is more than twice the size of it coefficient. Also, it is partially contradictory to common sense and any statement regarding this matter remains inconclusive.

However, the *EBITDA-margin at entry* behaves in line with intuition as it has a positive coefficient. In general, the margin provides practitioners with a bright picture about the profitability of a company. Also, it tells how well costs are managed and the remaining flexibility. In short, it does quite a good job in summarizing the company's health to some degree. Therefore, a positive relationship with *Sales Growth* is not surprising to see as one might argue that firms are easier to manage when conditions are already favourable. However, it must be noted that the coefficient stays insignificant and the *EBITDA-margin* is just a reference point, out of many, used to examine companies.

When we have a look at regression 6, we can see that the constant becomes positive, while being negative in 5. In most regressions, the constant is believed to take the task of 'completing' the regression upon her. Meaning that when there are omitted variables, they are reflected by the constant. The *institutional* and *cultural control variables* take away the negativity from the constant term upon themselves, except for the financial dummy. The positive coefficient attached to *Financial System Dummy* suggests that countries with a market based financial system should be preferred by PE firms (0.1001 and 0.0532 in regressions 7 and 8, respectively). This effect could be related to the flexibility companies gain when it is common to raise capital through the market instead of being provided by banks. Above all, banks, in general, have higher demands and are much stricter than capital markets, restraining companies in their freedom.

It is argued that experience and maturity have a major importance on one's performance in the PE business. Keeping that in mind, it is striking to see that *Financial Sponsor Age* is insignificant and even has a negative coefficient. Its sign suggests that maturity and experience is not in the advantage of PE firms in achieving *Sales Growth*. This is contrary to an earlier study arguing that large and mature PE firms succeed more often in boosting the operating performance of their Portfolio Companies (Acharya, Gottschalg, Hahn, & Kehoe, 2013). *Fund Size*, on the other hand, has a positive coefficient. This tells us that larger funds have the odds in their favour when it comes to improving revenues, which is in line with theory (Humphery-Jenner, 2012). Although statistically insignificant, large funds seem to be determinant in improving revenues across the dataset. Moreover, the positive sign of *EV* seems to contradict previous findings arguing that smaller firms achieve greater success in improving revenues (Achleitner, Braun, Engel, Figge, &

Tappeiner, 2010; Achleitner, Braun, & Engel, 2011). The *EV* coefficients in regressions 7 and 8 of Table 4 (0.0442 and 0.0370, respectively), however, suggest that a size effect consists and implies that large deals are followed by increased revenues. While the coefficients show interesting results, they are statistically insignificant, and no decisive statements can be made on these matters.

In addition, debt is assumed to have positive externalities for the operating performance of PE firms' Portfolio Companies (Jensen, 1986). This study, however, shows an opposing effect in terms of *Sales Growth* across the dataset. With a negative coefficient (-0.0062 and -0.0037 in regressions 7 and 8, respectively), it basically tells us that large amounts of debt do not improve sales. It even suggests that debt has an opposing effect, which proves the point of opponents of PE and LBOs. However, the discussion may not end here as the coefficient remains insignificant. Furthermore, the *LBO Spread* having an positive, though insignificant, relationship with *Sales Growth* is remarkable. One could explain this by suggesting that a wide *LBO Spread,* a quarter before the acquisition, could indicate that the deal took place in turbulent times, while the holding period covered a period of recovery. However, its large standard errors could be indicative for having no clear relationship with *Sales Growth*. *GDP Growth* takes a shape which is more intuitive than it was with deal pricing, namely 1.3489 and 1.4947 throughout regressions 7 and 8, respectively. Accordingly, country wide economic growth has a welcoming effect on the sales of a firm. While we see an indication of positive externalities for the average firm resulting from *GDP Growth,* the coefficients remain insignificant.

Moreover, the *Border Dummy* behaves in a way that suggests cross-border Add-ons outperform their domestic peers in terms of *Sales Growth*. The coefficient is positive across regressions 1 through 4 (0.0106, 0.0329, 0.0248, and 0.0345, respectively). This is in favour of the second hypothesis, stating that cross-border Add-ons do not realize *Sales Growth* less than domestic Add-ons. However, it will be inappropriate to conclude that proof is provided in favour of the hypothesis in this case. One might argue that the lacking of any significance is in favour of the second hypothesis, but it is neither against it. We can only say that certain indications are provided in favour of the hypothesis across the data set, but no clear evidence. Moreover, it has to be mentioned that the adjusted R-squared becomes very poor in regressions 7 and 8 (-0.007 and -0.105, respectively). Meaning, unnecessary variables are probably included in the model. So, omitting variables could be a solution, but it is also possible that a larger dataset solves the problem.

Table 16 in the appendix presents *Sales Growth* regressions for the EU – US sample. Note that the base case scenario is changed to European cross-border Add-ons in regressions 2, 4, 6, and 8. Furthermore, our previous discussion regarding the exposure of *Sales Growth* to the industry median gets another turn as its coefficient takes on positive and negative values throughout all regressions. Furthermore, regressions 1, 3, 5, and 7

show signs of differences concentrating on the *Region Dummy* (0.0228, 0.0255, 0.0039, and 0.0352, respectively). However, the main variables of interest are the interactions between the *Border Dummy* and *Region Dummy* in Table 16. The interaction terms *1 0* and *1 1,* indicating domestic Add-ons of European Platforms firms and domestic Add-ons of North-American Platforms firms, experience changes in their coefficients across regressions 2, 4, 6, and 8. The *0 1 (cross-border*North-America)* interaction term, indicating North-American Platform firms, has positive coefficients throughout all regressions (0.0713, 0.0775, 0.0930, and 0.1823). The suspicion arises that cross-border deals with North-American Platforms firms are more successful in integrating their Add-ons expressed in *Sales Growth* compared with their European peers. However, the p-values of the F-tests at the bottom of the table, examining differences between European Platform firms and North-American Platform firms, remain insignificant together with the coefficients. Therefore, we cannot conclude by opting for any difference between the two regions.

5.2.2 EBITDA Growth

Examining the *EBITDA Growth* in Table 5 also shows an inverse relationship with its industry median (-2.0975), *EBITDA Growth industry*, while becoming significant on a 10% level in regression 2. Everything else held constant, the coefficient implies that a 1% change in *EBITDA Growth industry* results in approximately -2.1% change in the Add-on's *EBITDA Growth*. However, as it was with *Sales Growth*, this could imply both outperformance and underperformance of the Portfolio Company relative to its industry peers. More similarities between the *Sales Growth* and *EBITDA Growth* test results can be found in the *EBITDA-margin at entry* coefficient. The positive coefficient in regressions 1 to 4 might again be an indication of the head start healthy companies have (0.1320, 0.0572, 0.1779, and 0.1407, respectively). However, it is worth mentioning that it deserves a compliment in the minds of others. One might argue that it is actually harder to improve EBITDA when margins are already favourable. However, the coefficients are insignificant and, therefore, concluding remarks cannot be decisive in nature.

The *EV* coefficient is positively related to the expansion of EBITDA, revealed by its sign (0.0829 and 0.0669 in regressions 3 and 4, respectively). Large deals happen to be more sufficient in outperforming smaller deals in terms of *EBITDA Growth* across the data set, while we have seen the opposite for *Sales Growth*. *Financial Sponsor Age*, on the other hand, takes shape towards opposite directions in regressions 3 and 4 and is statistically insignificant (0.0004 and -0.0005, respectively). It is, therefore, hard to determine in what way experience has an influence on the shape of *EBITDA Growth* across the dataset. *Fund Size*, however, has opposing observations when *Sales Growth* results are taken into consideration. While larger funds seem to be successful in improving revenues, they fail to drive up the EBITDA of Add-ons' relative to smaller funds (-0.0242

and -0.0175, respectively). It is possible that larger funds, having more at their disposal, rely on investments and expenses, for instance, in marketing, sales and advertisement to grow in revenues. However, this might take its toll on EBITDA, hence the negative relationship between *Fund Size* and *EBITDA Growth*. However, it is hard to draw a decisive conclusion as the coefficients remain insignificant. Furthermore, the coefficient of *Debt/EBITDA* indicates that its positive externalities might exist across the dataset (0.0225 and 0.0126 in regressions 3 and, 4 respectively). This is in line with the theory stating that debt results in a more efficient allocation of assets (Jensen, 1986). Since EBITDA is closely related with cash flow, similarities can also be found with another study suggesting that larger debt results in larger improvements in the Portfolio Company's cash flow (Guo, Hotchkiss, & Song, 2011). Nevertheless, only an indication can be given as statistical significance is lacking.

Furthermore, it is interesting to see that *LBO Spread* has a positive relationship with *EBITDA Growth* (1.1363 and 3.5520 in regressions 3 and 4, respectively). Considering that wide *LBO Spread*s imply expensive credits, a possible explanation could be that PE firms need to generate an EBITDA with their Add-on which is sufficient enough to cover interest payments resulting from the acquisition. This could increase the incentive to realize *EBITDA Growth*. However, it is premature to opt for such a relation as PE firms can swiftly deploy extra capital as well as letting the Platform firms step in. Also, no matter what, the incentive to expand the EBITDA should also be present. In addition, it could also reflect the success of the PE firm in timing the acquisition. In other words, the Add-on is acquired in an economic turbulent time, while the holding period experienced the recovery. *GDP Growth*, however, experiences a change in its coefficient from regressions 3 to 4 (-0.7345 and 0.6693, respectively). Considering the large standard errors, it is hard to give a clear and profound explanation for its behaviour.

This time, it seems that a market based financial system is negatively related to *EBITDA Growth,* seeing it coefficients in regressions 2 and 4 (-0.1066 and -0.1166, respectively). This could be related to specific debt covenants determined by banks, which firms have to adhere to. One of the specified covenants relates to the net-debt-to-EBITDA ratio, which implies that the ratio may not transcend a specific amount. It is quite possible that firms operating in a market based financial system have less incentives to meet certain EBITDA-levels, resulting in a negative coefficient. Furthermore, improved creditor rights lead to an improvement in Add-ons' EBITDA across the dataset (0.0134 and 0.0126 in regressions 2 and 4, respectively). This should not come with any surprise, as it is in line with intuition to argue that a better protection by law should improve operations. First of all, costs for legal advice will be lower effecting EBITDA directly. Moreover, one might also suggest that improving *Creditor Rights* have an influence on the confidence and trust businesses put in the system, which will lead to new businesses more effectively and in

higher volumes. Intuitively, the latter effect should be seen in underdeveloped countries with a poor law enforcements, so that marginal effects close to zero should appear in developed countries. As the majority of the dataset represents developed countries, it is not surprising to see insignificant *Creditor Rights*. Furthermore, *Hofstede Cultural Dimension* confirms the earlier presumption that cultural distance has a negative impact on operating performance, this time *EBITDA Growth* in specific. The negative coefficient could be indicative for higher costs due to a troublesome integration process. However, it must be noted that all *institutional* and *cultural control variables* are statistically insignificant, and no conclusive remarks can be given on these matters.

The *Border Dummy* has negative coefficients attached across all regressions (-0.0736, -0.1083, -0.0806, and -0.1148), while being statistically significant on a 10%-level and 5%-level. The sign of the coefficient points out a valid reason to believe that cultural differences cause challenges. The coefficient suggests that cross-border Add-ons realize less *EBITDA Growth* relative to domestic Add-ons. As illustration, the coefficient in regression 4 implies a difference of -23% $(10^{-0.1148} - 1)$ in cross-border Add-ons' *EBITDA Growth* over the holding period relative to domestic Add-ons. The integration process of an Add-on to a Platform firm is a very costly process. It is reasonable to think that cultural differences drive up these costs resulting in a lower *EBITDA Growth*. Nevertheless, its significance is not strong enough for a profound reasoning and, therefore, the third hypothesis remains ambiguous. As one might recall, this stated that PE firms were able to tackle cultural distances and, as a result, their cross-border Add-ons would not perform worse than their domestic Add-ons. However, taking everything into consideration, leaves behind a tendency which suggests that PE firms are not able to overcome cultural differences across this dataset. Moreover, considering the results of *Deal Price* regressions, one might have expected to detect the outperformance of cross-border Add-ons, measured in operating performance. After all, higher prices for acquisitions could be indicating a promising future growth for the acquired company.

Table 17 in the appendix covers regional differences. In more detail, it shows if Add-ons of Platform firms in Europe and North-America perform differently in terms of *EBITDA Growth*. Note that the base case scenario is changed to European cross-border Add-ons in regressions 2, 4, 6, and 8. The *Region Dummy*'s coefficients indicate that North-American Platform firms outperform their European counterparts in terms of *EBITDA Growth* (0.0585, 0.0826, 0.0641, and 0.0720 in regressions 1, 3, 5, and 7, respectively). Moreover, our main interest is again the interaction between the *Border Dummy* and *Region Dummy*. The *0 1 (cross-border*North-America)* interaction term between the *Border Dummy* and *Region Dummy* is positive throughout all regressions (0.1779, 0.2120, 0.1689, and 0.2639). This can be observed as an outperformance of North-American Platform firms engaging cross-border Add-ons relative to their European counterparts. However, the coefficients remain

Table 5

OLS-regression results for *EBITDA Growth & EBITDA-margin delta*

This table contains results of OLS cross-section regressions with standard errors for the *EBITDA Growth* and *EBITDA-margin delta* hypotheses. Deals who are realized between 2006 - 2015 are included in the Data Sample. Accounting data covers the time period of 2006 - 2016. Standard errors are presented in parentheses. *Border Dummy* equals to 1 for Cross-border deals. *Financial System Dummy* equals to 1 if the target country has a Market Based Capital System. Further variable descriptions can be found in Table 7 located in the appendix. Regression results with *Industry* and *Time Dummy* coefficients can be found in Tables 11 and 12 for *EBITDA Growth* and *EBITDA-margin delta*, respectively, located in the appendix.

	log EBITDA Growth					EBITDA-margin delta			
	(1)	**(2)**	**(3)**	**(4)**		**(5)**	**(6)**	**(7)**	**(8)**
Constant	0.0977	0.0784	-0.0853	-0.1267	Constant	0.0286*	0.0081	0.0390	-0.0584
	(0.0589)	(0.0988)	(0.1972)	(0.3407)		(0.0146)	(0.0324)	(0.0633)	(0.0884)
Border Dummy	-0.0736*	-0.1083**	-0.0806	-0.1148*	Border Dummy	-0.0079	-0.0227	-0.0065	-0.0168
	(0.0425)	(0.0532)	(0.0539)	(0.0670)		(0.0133)	(0.0152)	(0.0160)	(1.086)
log EBITDA Growth industry	-1.6588	-2.0975*	-1.5422	-2.4833	EBITDA-margin delta industry	-0.8834	-0.7130	-0.1455	-0.1484
	(1.2228)	(1.2262)	(1.5317)	(1.6941)		(0.7943)	(0.8220)	(0.9672)	(1.0863)
log EBITDA-margin @entry	0.1320	0.0572	0.1779	0.1407	log EBITDA-margin @entry	-0.0767	-0.0817	-0.0801	-0.0631
	(0.2576)	(0.2373)	(0.2731)	(0.3083)		(0.1348)	(0.1404)	(0.1508)	(0.1568)
log EV			0.0829	0.0669	log EV			0.0070	0.0190
			(0.0599)	(0.0739)				(0.0160)	(0.0207)
Financial Sponsor Age			0.0004	-0.0005	Financial Sponsor Age			0.0003	0.0000
			(0.0022)	(0.0025)				(0.0006)	(0.0008)
log Fund Size			-0.0242	-0.0175	log Fund Size			-0.0168	-0.0059
			(0.0421)	(0.0467)				(0.0172)	(0.0194)
log Debt/EBITDA			0.0225	0.0126	log Debt/EBITDA			0.0153	0.0033
			(0.0315)	(0.0461)				(0.0132)	(0.0173)
LBO Spread			1.1363	3.5520	LBO Spread			0.6353	1.0182
			(5.2176)	(8.9532)				(1.7096)	(2.3082)
log GDP Growth			-0.7345	0.6693	log GDP Growth			-0.7309	-1.1654
			(2.0321)	(2.2052)				(0.6794)	(0.8655)
Financial System Dummy		-0.1066		-0.1166	Financial System Dummy		-0.0771**		-0.0639
		(0.0827)		(0.0965)			(0.0360)		(0.0412)
Creditor Rights		0.0134		0.0126	Creditor Rights		0.0166**		0.0194**
		(0.0220)		(0.0274)			(0.0071)		(0.0091)
Corruption Perception Index		-0.0021		0.0038	Corruption Perception Index		-0.0087		-0.0099
		(0.0179)		(0.0298)			(0.0053)		(0.0075)
log Hofstede Cultural Dimension		-0.2019		-0.1648	log Hofstede Cultural Dimension		-0.0771		-0.0567
		(0.2474)		(0.3428)			(0.0818)		(0.1037)
Industry Dummy	YES	YES	YES	YES	Industry Dummy	YES	YES	YES	YES
Time Dummy	YES	YES	YES	YES	Time Dummy	YES	YES	YES	YES
Adjusted R-squared	0.198	0.146	0.103	0.015	Adjusted R-squared	-0.091	0.016	-0.151	-0.080
Observations	55	55	55	55	Observations	55	55	55	55

Significance: p<0.1* p<0.05** p<0.01***

statistically insignificant as well as the p-values of the F-tests in the bottom of the table. Given these observation, we have no mandate to make decisive statements. Nevertheless, another observation does reveal interesting insights as it coefficient becomes significant in 3 out of 4 regressions. The *1 0 (domestic*Europe)* interaction term implies that domestic Add-ons conducted by European Platform firms outperform cross-border Add-ons. Also on this matter, however, no conclusive remark can be given as more significant results are required.

5.2.3 EBITDA-margin delta

Table 5 contains *EBITDA-margin delta* regression coefficients in which we can see a negative relationship between the Add-on's margin improvement and the industry median, *EBITDA-margin delta industry* (-0.8834, -0.7130, -0.1455, and -0.1484 in regressions 5, 6, 7, and 8, respectively). One might notice that the previous regressions resulted in the same observations regarding industry performance. In this case, it could again mean, both, under- and outperformance relative to industry peers by Add-ons across the data set. Furthermore, the *EBITDA-margin at entry* has an inverse relationship with *EBITDA-margin delta* (-0.0767, -0.0817, -0.0801, and -0.0631). This indicates that a high margin at entry does not work well together with *EBITDA-margin* expansion over the holding period. It is quite imaginable that already favourable margins are hard to improve. However, both *EBITDA-margin delta industry* and *EBITDA-margin at entry* are insignificant and further discussion is deemed to be held in what could be the rationale behind this.

Deal size, in terms of *EV*, has a positive coefficient, indicating that larger deals are sufficient in expanding margins (0.0070 and 0.0190, in regressions 7 and 8, respectively). Although we saw a similar observation with *EBITDA Growth*, it is still worth mentioning that it is, up to some degree, a surprising observation. A logical thinking would be that larger deals require more effort and result in higher costs inherent with the integration process during the holding period. This could put margins under severe pressure, to even decline ultimately. However, one might also argue that economies of scale are easier to achieve when the acquired firm operates on a larger scale, reflected by the *EV* coefficient in regressions 7 and 8. Furthermore, *Financial Sponsor Age* has quite a small and insignificant coefficient, making an interpretation ambiguous (0.0003 and 0.0000, in regressions 7 and 8, respectively). Moreover, the *Fund Size* is negatively related to the *EBITDA-margin delta* (-0.0168 and -0.0059 in regressions 7 and 8, respectively). As discussed before, the underlying effect could be that larger funds are deploying more capital into efforts to scale up in terms of revenues, but are driving up costs while doing so. Now concentrating on *Debt/EBITDA*, we can see that positive externalities are observed again (0.0153 and 0.0033 in regressions 7 and 8, respectively). The positive coefficient supports the theory of debt resulting in a more efficient use of resources and stimulating operating performance (Jensen, 1986; Guo, Hotchkiss, & Song, 2011). Furthermore, *LBO*

Spread is affecting the EBITDA-margin in a positive way (0.6353 and 1.0182 in regressions 7 and 8, respectively). This could, again, be reflecting the additional incentives of PE firms to drive up their EBITDA to meet interest payments of expensive loans. However, as you might recall, it could indicate a timing effect as well. Furthermore, *GDP Growth* has an inverse relation with the *EBITDA-margin delta* (-0.7309 and -1.1654 in regressions 7 and 8, respectively). Intuitively, it would be expected to see a relationship the other way around, implying that economic prosperity would produce a stimulatory effect.

Moreover, institutional factors tend to have some effect on the ability of PE firms to improve the margins of their Add-ons. The *Financial System Dummy*, in this case, is negative in regressions 6 and 8 (-0.0771 and -0.0639, respectively), while being significant in 4. Its sign gives a strong presumption that a Bank-based Financial System might create a better environment for margin expansion. The screening efforts of the Bank might be explaining that margins are improved more successfully in a Bank-based Financial System. Companies are obliged to meet certain covenants determined by Banks. Furthermore, *Creditor Rights* are a significant and positive influence on *EBITDA-margin delta* (0.0166 and 0.0195 in regressions 6 and 8, respectively). In line with intuition, advanced creditor rights should lead easier to margin expansion. The direct effect on the operational costs could be reflected as well as other positive externalities like the ease of doing business. Moreover, the negative coefficient of the *Corruption Perception Index* does not come with surprise either (-0.0087 and -0.0099 in regressions 6 and 8, respectively). Neither does *Hofstede Cultural Dimension*, as cultural distance could lead to increasing costs during the integration as discussed before (-0.0771 and -0.0567 in regressions 6 and 8, respectively). This would not have another effect than deteriorating operating performance.

The main variable, *Border Dummy*, lacks in his significance, but seems to be in line with the *EBITDA Growth* regressions. Negative coefficients may again suggest that the integration costs of cross-border Add-ons are higher compared with domestic Add-ons in regressions 5 through 8 (-0.0079, -0.0227, -0.0065, and -0.0168, respectively). The hypothesis related to the *EBITDA-margin delta*, however, stated that Platform firms, and with them PE firms, would succeed in overcoming cultural distances by realizing at least similar margin improvements as domestic Add-ons. Considering the findings presented in Table 5, statistically insignificant *Border Dummies* leave no choice other than neither rejecting or accepting the hypothesis. However, concentrating on the sign of the coefficients, one might argue that proof against the hypothesis is overwhelming. Moreover, negative adjusted R-squares are observed in regressions 1, 7, and 8 (-0.091, -0.151, and -0.080, respectively). As we saw earlier, this means that unnecessary variables are probably included in the model, and omitting variables could be a solution. However, it is also possible that a larger dataset solves the problem.

Table 18 in the appendix contains the coefficients for the EU – US sample in the urge of detecting any regional differences. Note that the base case scenario are European cross-border Add-ons in regressions 2, 4, 6, and 8. From regressions 1, 3, 5, and 7 (0.0225, 0.0296, 0.0281, and 0.0234, respectively), we can see that the *Region Dummy* stays positive and becomes statistically significant in regression 3 on a 10%-level. This implies that North-American Platform firms have more success in achieving margin improvements for their Add-ons compared with European Platform firms. However, the interaction term is more of interest, enabling us to make a decent comparison. In this case, however, it gives a blurring image as the *0 1 (cross-border*North-America)* interaction coefficient is negative in regressions 2, 6, and 8 (-0.0011, -0.0119, and -0.0220, respectively), while being positive in regression 4 (0.0087). The negativity indicates that North-American Platforms underperform their European peers in cross-border Add-ons' margin expansion, while the positive coefficient in regression 4 suggests otherwise. Moreover, the *1 1 (domestic*North-American)* interaction term shows statistically significant returns in all regressions (0.0389, 0.0555, 0.0518, and 0.0674 in regressions 2, 4, 6, and 8, respectively). The sign indicates that North-American Platform firms' domestic Add-ons significantly outperform European Platforms firms' cross-border Add-ons. However, it still leaves the distinction between the two regions incomplete.

6. SUMMARY AND CONCLUSION

The remarkable growth of Leveraged Buyouts (LBOs) and Private Equity (PE) activity over the globe attracted tremendous attention, whilst causing a lot of controversy along its way. From the 70s onwards, scientific research got a lock on LBOs, while PE was not targeted before the 90s. Many have shown positive as well as negative externalities of LBOs and PE activity. While the opponents of PE seem to outnumber the supporters, it must be noted that many worries are taken away by scientific research. The latest developments in the PE industry underlines the shift from harsh financial engineering to a more socially-approved way of value-creation, the Buy-and-Build (B&B) strategy. PE firms have now conducted a strategy in which they seek expansion for their Portfolio Companies, used as so called Platform Firms, through new acquisitions, so called Add-ons. Whether it is through a cross-border or domestic acquisition, more and more PE firms started to adapt this strategy. This research aims to collaborate on that point by examining differences between cross-border and domestic Add-ons. In more detail, the main interest was to discover if PE firms' were able to take away cultural barriers in cross-border acquisition, while pursuing the B&B-strategy with their platform firms.

The data sample covered deals backed by PE firms as part of their B&B strategy between 2006 and 2015. Resulting in a unique hand-collected dataset of 55 deals, deal

pricing and operational performance is hypothesized in order to provide adequate answers for the research question. According to the results of this research, costs inherent to cultural barriers were not calculated for by PE firms while valuing target. After all, a positive and significant *Border Dummy* indicated that cross-border Add-ons were getting higher price tags attached to them, in terms of the EV/EBITDA multiple. Furthermore, to determine whether operating performances of Add-ons are affected by cultural distances, *Sales Growth, EBITDA Growth*, and *EBITDA-margin* expansions were subject to OLS regressions. Financial data between investment entry and exit were transformed into Compound Annual Growth Rates and followed by mixed results. According to the sign of the *Border Dummy*, revenues are driven upwards in cross-border Add-ons. However, *EBITDA Growth* and *EBITDA-margin delta* regressions revealed possible difficulties PE firms might have when engaging in cross-border Add-ons. Cross-border Add-ons were underperforming relative to their domestic counterparts. However, statistically significant *Border Dummies* were observed only for the *EBITDA Growth* regressions. Taking everything into consideration, it seems that PE firms still have to take steps towards perfection. The results of this research insinuate that cultural barriers still pose a threat for the performance of cross-border Add-ons and, thereby, endangering the success of the PE firm and its B&B-strategy. However, it is essential to conduct more research to provide a definite answer on this subject.

7. LIMITATIONS AND RECOMMENDATIONS

Future research could deal with the main limitations of this research. First of all, the data is far from complete in the sense that not all relevant deals are covered in this research. A majority of PE firms refuse to share deal specific information with public sources. Even if they do, it is incomplete most of the time. It could be the case that PE firms lack in interest when it comes to making data publicly available or they simply do not want to face reputation damage in case of bad investments. Either way, it is not helping Financial science. Moreover, it is also very likely that PE firms are cherry-picking investments they do share with the public. In other words, it is highly likely that only successful investment data is accessible to the public. This could result in a severe Self-Selection bias across the dataset. The endogenous sample selection, however, can be dealt with by the Heckman correction, but is only recommended in case of a large dataset.

The next limitation is the data collection process itself. Every deal in this research is thoroughly examined before making it to the final data set. Without any doubt, this resulted in a forced loss of relevant deals, since not every detail was made clear by the publishers. In other words, if the deal did not satisfy all criteria classifying it a B&B strategy, its immediate exclusion followed. Also, incomplete accounting data meant exclusion of a

deal as well. In the end, this resulted in a dataset of 55 Add-on deals. Although this many deals can be considered as scientifically relevant, the coefficients could have been estimated way more precise if more deals could have been included to the sample. As one might recall, a larger dataset could also be a solution for the negative adjusted R-squared values we saw in the *Sales Growth* and *EBITDA-margin delta* regressions.

The expansion of the dataset could deal with other issues in this research as well. As mentioned before, endogeneity can be caused in three ways. Which is trough unobservable heterogeneity, simultaneity, and dynamic endogeneity. First of all, unobservable heterogeneity is a very frequently used phrase in papers as it is almost inevitable. In almost all cases, one can think of omitted variables which may affect, both, the dependent and independent variable. Several examples of possible omitted variables for this research are given below as possible control variables. Second, simultaneity is very likely present among this study. For example, EV is a regressor of *Deal Price*, which is measured by the EV/EBITDA multiple, while both are determined simultaneously. Third, it is very likely that dynamic endogeneity is present among the operating performance regressions. While an often used phrase in Finance states that past performance is no guarantee for future results, it can actually be the foundation when it comes to operating performance. In other words, it is very likely that businesses keep earning future revenues from relations build in the past. One can think of several approaches to overcome endogeneity. Again, it must be noted that a large dataset is required for the application of it, which this research has failed to secure. Commonly used approaches to deal with endogeneity are the use of Generalized Method of Moments (GMM) and Two-Stage-Least-Squares (2SLS or TSLS) estimators.

Furthermore, several additions could be made with more usage of dummy variables. For example, the total duration of the holding period could be influential when it comes to the amplitude of costs inherent to cultural differences. Intuitively, a longer holding period should contribute in a positive way to the treatment of cultural differences. Subsequently, more could be done to provide a complete picture in regional differences. Although this research contains interesting results, it only does so for European and North-American Platform firms. It is interesting to see, for example, whether Asian Platform firms handle cross-border Add-ons differently. Also, it could be interesting to see if differences exist between PE firms from different regions. In addition, regional differences based on the location of Add-ons could also reveal useful insights. Or even differences within regions could be looked into.

Moreover, another limitation is the lack of matching. For example, matching on size could be very useful. We have seen that size can be determining in which way value is created (Kieschnick, 1998; Achleitner, Braun, & Engel, 2011; Ick, 2005). This can have

consequences in the way results are observed as cross-border deals might be, in general, larger than domestic Add-ons, or vice versa.

More could also be done with regard of control variables. As discussed in the literature review, PE investments are found to be illiquid (Ljunqvist & Richardson, 2003). In line with these findings, finding a proper proxy for illiquidity in operating performance could increase the power of the tests. The study of Pástor and Stambaugh (2003) could be of use. In addition, according to several studies, past experience of the fund managers determines the performance of PE firms as well as the Portfolio Company (Acharya, Gottschalg, Hahn, & Kehoe, 2013; Metrick & Yasuda, 2010). Therefore, it would be of use to include proxies controlling for the past experience of GPs.

References

Acharya, V. V., Gottschalg, O. F., Hahn, M., & Kehoe, C. (2013). Corporate Governance and Value Creation: Evidence from Private Equity. *The Review of Financial Studies, 26*(2), 368-402.

Achleitner, A.-K., & Figge, C. (2014). Private Equity Lemons? Evidence on Value Creation in Secondary Buyouts. *European Financial Management, 20*(2), 406-433.

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

Achleitner, A.-K., Braun, R., Engel, N., Figge, C., & Tappeiner, F. (2010). Value Creation Drivers in Private Equity Buyouts: Empirical Evidence from Europe. *The Journal of Private Equity, 13*(2), 17-27.

Ahern, K. R., Daminelli, D., & Fracassi, C. (2012). Lost in translation? The effect of cultural values on mergers around the world. *Journal of Financial Economics, 117*(1), 165-189.

Aldatmaz, S., & Brown, G. W. (2016). Private Equity in the Global Economy: Evidence on Industry Spillovers. *Unpublished*.

Amess, K., & Wright, M. (2007). Barbarians at the Gate? Leveraged Buyouts, Private Equity and Jobs. *Unpublished*.

Andrade, G., & Kaplan, S. N. (1998). How Costly Is Financial (Not Economic) Distress? Evidence from Highly Leveraged Transactions That Became Distressed. *The Journal of Finance, 53*(5), 1443-1493.

Axelson, U., Jenkinson, T., Strömberg, P., & Weisbach, M. S. (2009). Leverage and Priving in Buyouts: An Empirical Analysis. *Unpublised*.

Bain & Company. (2016). *Global Private Equity Report 2016.* Boston: Bain & Company.

BCG & HHL. (2016). *The Power of Buy and Build: How Private Equity Firms Fuel Next-Level Value Creation.* Leipzig: The Boston Consulting Group; Leipzig Graduate School of Management.

Bedu, N., & Montalban, M. (2014). Analysing the uneven development of private equity in Europe: legal origins and diversity of capitalism. *Socio-Economic Review, 12*(1), 33-70.

Bernstein, S., Lerner, J., Sorensen, M., & Strömberg, P. (2016). Private Equity and Industry Performance. *Management Science, 63*(4), 1198-1213.

Cao, J., Cumming, D., Qian, M., & Wang, X. (2010). Creditor Rights and LBOs. *Working Paper*.

Chakrabarti, R., Gupta-Mukherjee, S., & Jayaraman, N. (2009). Mars-Venus marriages: Culture and cross-border M&A. *Journal of International Business Studies, 40*(2), 216-236.

Chatterjee, S., Lubatkin, M. H., Schweiger, D. M., & Weber, Y. (1992). Cultural differances and shareholder value in related mergers: linking equity and human capital. *Strategic Management Journal, 13*(5), 319-334.

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

Cumming, D., Fleming, G., & Schwienbacher, A. (2009). Style Drift in Private Equity. *Journal of Business Finance & Accounting, 36*(5-6), 645-678.

Cumming, D., Fleming, G., Johan, S., & Takeuchi, M. (2010). Legal Protection, Corruption and Private Equity Returns in Asia. *Journal of Business Ethics, 95*(2), 173-193.

Cumming, D., Haß, L. H., & Schweizer, D. (2013). Private equity benchmarks and portfolio optimization. *Journal of Banking & Finance, 37*(9), 3515-3528.

Cumming, D., Siegel, D. S., & Wright, M. (2007). Private Equity, Leveraged Buyouts and Governance. *Journal of Corporate Finance, 13*(4), 439-460.

Datta, D. K. (1991). Organizational fit and acquisition performance: Effects of post-acquisition integration. *Strategic Management Journal, 12*(4), 281-297.

Davis, S. J., Haltiwanger, J., Jarmin, R., Lerner, J., & Miranda, J. (2011). Private Equity and Employment. *NBER Working Paper 17399*.

Driessen, J., Lin, T.-C., & Phalippou, L. (2007). Estimating the Performance and Risk Exposure of Private Equity Funds: A New Methodology. *Netspar: Discussion paper, 2007*(023), 1-44.

Espenlaub, S., Khurshed, A., & Mohamed, A. (2009). The Exit behavior of Venture Capital firms. *Unpublished*.

Espenlaub, S., Khurshed, A., & Mohamed, A. (2015). VC investments and global exits. *The European Journal of Finance, 21*(7), 608-628.

Folkman, P., Froud, J., & Williams, K. (2009). Private Equity: Levered on Capital or Labour? *Journal of Industrial Relations, 51*(4), 517-527.

Giot, P., & Schwienbacher, A. (2007). IPOs, trade sales and liquidations: Modelling venture capital exits using survival analysis. *Journal of Banking & Finance, 31*(3), 679-702.

Goergen, M., O'Sullivan, N., & Wood, G. (2011). Private Equity Takeovers and Employment in the UK: Some Empirical Evidence. *Corporate Governance: An International Review, 19*(3), 259-275.

Gong, J. J., & Wu, S. Y. (2011). CEO Turnover in Private Equity Sponsored Leveraged Buyouts. *Corporate Governance: An International Review, 19*(3), 195-209.

Guo, S., Hotchkiss, E. S., & Song, W. (2011). Do Buyouts (still) Create Value? *The Journal of Finance, 66*(2), 479-517`.

Halpern, P., Kieschnick, R., & Rotenberg, W. (1999). On the Heterogeneity of Leverage Going Private Transactions. *The Review of Financial Studies, 12*(2), 281-309.

Hansen, L. P. (1982). Large Sample Properties of Generalized Method of Moments Estimators. *The Economic Society, 50*(4), 1029-1054.

Harris, R. S., Jenkinson, T., & Kaplan, S. (2014). Private Equity Performance: What Do We Know? *The Journal of Finance, 69*(5), 1851-1882.

Harris, R., Siegel, D. S., & Wright, M. (2005). Assessing The Impact of Management Buyouts on Economic Efficiency: Plant-Level Evidence From the United Kingdom. *Review of Economics and Statistics, 87*(1), 148-153.

Hofstede, G. (1984). Cultural dimensions in management and planning. *Asia Pacific Journal of Management, 1*(2), 81-99.

Humphery-Jenner, M. (2012). Private Equity Fund Size, Investment Size, and Value Creation. *Review of FInance, 16*(3), 799-835.

Humphery-Jenner, M., Sautner, Z., & Suchard, J.-A. (2017). Cross-border mergers and acquisitions: The role of private equity firms. *Strategic Management Journal, 38*(8), 1688-1700.

Ick, M. (2005). Performance Measurement and Appraisal of Private Equity Investments relative to Public Equity Markets. *Working Paper*.

Jegadeesh, N., Kräussl, R., & Pollet, J. M. (2015). Risk and Expected Returns of Private Equity Investments: Evidence Based on Market Prices. *The Review of Financial Studies, 28*(12), 3269-3302.

Jelic, R., & Wright, M. (2011). Exits, Performance, and Late Stage Private Equity: the Case of UK Management Buy-outs. *European Financial Management, 17*(3), 560-593.

Jensen, M. C. (1986). Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers. *The American Economic Review, 76*(2), 323-329.

Jensen, M. C. (1989). Active Investors, LBOs, and the Privatization of Banktruptcy. *Journal of Applied Corporate FInance, 2*(1), 35-44.

Jovanovic, B., & Rousseau, P. L. (2002). The Q-Theory of Mergers. *NBER Working Paper 8740*.

Kaplan, S. (1989a). Management Buyouts: Evidence on Taxes as a Source of Value. *The Journal of Finance, 44*(3), 611-632.

Kaplan, S. (1989b). The Effects of Management Buyouts on Operating Performance and Value. *Journal of Financial Economics, 24*(2), 217-254.

Kaplan, S. N., & Schoar, A. (2005). Private Equity Performance: Returns, Persistence, and Capital Flows. *The Journal of Finance, 60*(4), 1791-1823.

Kieschnick, R. L. (1998). Free cash flow and stockholder gains in going private transactions revisited. *Journal of Business Finance & Accounting, 25*(1&2), 187-202.

Lehn, K., & Poulsen, A. (1989). Free Cash Flow and Stockholder Gains in Going Private Transactions. *The Journal of Finance, 44*(3), 771-787.

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

Lie, E. (2005). Operating performance following open market share repurchase announcements. *Journal of Accounting and Economics, 30*(2), 411-436.

Ljunqvist, A., & Richardson, M. (2003). The cash flow, return and risk characteristics of private equity. *NBER Working Paper 9454*.

Lowenstein, L. (1985). Management Buyouts. *Columbia Law Review, 85*(4), 730-784.

Metrick, A., & Yasuda, A. (2010). The Economics of Private Equity. *The Review of Financial Studies, 23*(6), 2303-2341.

Meuleman, M., & Wright, M. (2011). Cross-border private equity syndication: Institutional context and learning. *Journal of Business Venturing, 26*(1), 35-48.

Moeller, S. B., & Schlingemann, F. P. (2005). Global diversification and bidder gains: A comparison between cross-border and domestic acquisitions. *Journal of Banking of Finance, 29*(3), 533-564.

Nahata, R., Hazarika, S., & Tandon, K. (2014). Success in Global Venture Capital Investing: Do Institutional and Cultural Differences Matter? *Journal of Financial and Quantitative Analysis, 49*(4), 1039-1070.

Nikoskelainen, E., & Wright, M. (2007). The impact of corporate governance mechanisms on value increase in leveraged buyouts. *Journal of Corporate Finance, 13*(4), 511-537.

Olie, R. (1990). Culture and Integration Problems in International Mergers and Acquisitions. *European Management Journal, 8*(2), 206-215.

Opler, T., & Titman, S. (1993). The Determinants of Leveraged Buyout Activity: Free Cash Flow vs. Financial Distress Costs. *The Journal of Finance, 48*(5), 1985-1999.

Pástor, L., & Stambaugh, R. (2003). Liquidity Risk and Expected Stock Returns. *Journal of Political Economy, 111*(3), 642-685.

Phalippou, L., & Gottschalg, O. (2009). The Performance of Private Equity Funds. *The Review of FInancial Studies, 22*(4), 1747-1776.

Rinaldi, E. (2012). *Understanding Alternative Investments: Private Equity Performance Measurement and Its Role in a Portfolio.* Valley Forge: Vanguard Investment Counseling & Research.

Servaes, H. (1994). Do Takeover Targets Overinvest? *The Review of Financial Studies, 7*(2), 253-277.

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

Strömberg, P. (2007). The new demography of private equity. *Working Paper*.

Stucke, R. (2011). Updating History. *Working Paper*.

Watt, A. (2008). The impact of private equity on European companies and workers: key issues and a review of the evidence. *Industrial Relations Journal, 39*(6), 548-568.

Weir, C., Laing, D., & Wright, M. (2005). Undervaluation, private information, agency costs and the decision to go private. *Applied Financial Economics, 15*(13), 947-961.

Wilson, N., & Wright, M. (2013). Private Equity, Buy-outs and Insolvency Risk. *Journal of Business Finance & Accounting, 40*(7-8), 949-990.

Wilson, N., Wright, M., Siegel, D. S., & Scholes, L. (2012). Private equity portfolio company preference during the global recession. *Journal of Corporate Finance, 18*(1), 193-205.

Wintoki, M. B., Linck, J. S., & Netter, J. M. (2012). Endogeneity and the dynamics of internal corporate governance. *Joural of Financial Economics, 105*(3), 581-606.

Wright, M., Amess, K., Weir, C., & Girma, S. (2009). Private Equity and Corporate Governance: Retrospect and Prospect. *Corporate Governance: An International Review, 17*(3), 353-375.

Wright, M., Hoskisson, R. E., & Busenitz, L. W. (2001). Firm rebirth: Buyouts as facilitators of strategic growth and entrepeneurship. *Academy of Management Perspective, 15*(1), 111-125.

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

APPENDIX

Table 6

Data collection details

Steps	No. Obs.	Comment
Complete Data Set	2129	Include if acquiring (ultimate) parent is a Financial Sponsor and deal value is at least $100mln
Relevant Deals	272	Drop if deal doesn't follow a PE B&B-strategy
Final Dataset	55	Drop if deal doesn't contain complete information on all variables

Table 7

Variable definitions

Definitions for all variables used in this research are described in this table.

Variable	*Regression*	*Description*
Dependent variables		
$\log\frac{EV}{EBITDA_i}$	**(1)**	Logarithm of the Add-on's Enterprise Value divided by EBITDA.
$\log(Sales\ growth_i + 1)$	**(2)**	Logarithm of the Add-on's Sales CAGR* +1 over the holding period.
$\log(EBITDA\ growth_i + 1)$	**(3)**	Logarithm of the Add-on's EBITDA CAGR* +1 over the holding period.
$\log EBITDA\ margin\ delta_i$	**(4)**	Expansion of the EBITDA-margin over the holding period of the Add-on. Calculated as; log(1 + EBITDA Margin, EXIT) - log(1 + EBITDA Margin, ENTRY)
Deal Control Variables		
$\log EBITDA\ margin_i$	**(2) (3) (4)**	Logarithm of the Add-on's EBITDA margin at entry.
$\log EV_i$	**(1) (2) (3) (4)**	Logarithm of the Add-on's Enterprise Value at entry year.
$Financial\ Sponsor\ Age_i$	**(1) (2) (3) (4)**	Amount of years the Financial Sponsor exists at entry year.
$\log Fund\ Size_i$	**(1) (2) (3) (4)**	Size of the PE fund investing in the Add-on.
$\log\frac{Debt}{EBITDA_i}$	**(1) (2) (3) (4)**	Logarithm of the net debt to EBITDA ratio of the Add-on.
$Time\ Dummy_i$	**(1) (2) (3) (4)**	Time Dummy making a distinction between certain periods to avoid time specific characteristics. 2006, 2007, 2008, 2009, 2010, 2011, 2014, 2015
Market- and Macro Control variables		
$LBO\ spread_i$	**(1) (2) (3) (4)**	Yield spread captured by the difference in yield for Moody's BAA bond index and the 10-year U.S. Government bond.
$\log(GDP\ Growth_i + 1)$	**(1) (2) (3) (4)**	Logarithm of target country's CAGR* GDP + 1 over the holding period.

Table 7
Variable Descriptions (continued)

Variables	*Regression*	*Description*
Industry Control Variables		
$\log \frac{EV}{EBITDA_{Industry}}$	**(1)**	Logarithm of benchmark firms' median Enterprise Value / EBITDA multiples at entry, matched by SIC industry. Benchmark firms are derived from the S&P1200.
$\log Sales\ growth_{Industry}$	**(2)**	Logarithm of benchmark firms' median Sales CAGR* + 1 over the holding period, matched by industry code. Benchmark firms are derived from the S&P1200.
$\log EBITDA\ growth_{Industry}$	**(3)**	Logarithm of benchmark firms' median EBITDA CAGR* + 1 over the holding period, matched by SIC industry code. Benchmark firms are derived from the S&P1200.
$\log EBITDA\ margin\ delta_{Industry}$	**(4)**	Logarithm of the median change in benchmark firms' EBITDA margin over the holding period, matched by SIC industry code. Benchmark firms are derived from the S&P1200.
$Industry\ Dummy_i$	**(1) (2) (3) (4)**	Industry dummies derived from one-digit SIC codes.
Institutional Control Variables		
$Market\ Based\ Financial\ System_i$	**(1) (2) (3) (4)**	Dummy variable which equals 1 when the deal took place in a country with a market based financial system and 0 when it took place in a country with a bank based financial system.
$Creditor\ Rights_i$	**(1) (2) (3) (4)**	Value indicating the quality of creditor protection. A high number indicates better protection, and vice versa.
$Corruption\ Perception\ Index_i$	**(1) (2) (3) (4)**	Index indicating the degree of corruption in a country. Low numbers imply that countries are considered as being more corrupt, and vice versa.
Cultural Control Variable		
$\log Hofstede\ Cultural\ Distance_i$	**(1) (2) (3) (4)**	$\frac{\sqrt{\sum_{h=1}^{4}(S_{A,h} - S_{T,h})^2}}{4}$
$(S_{A,1} - S_{T,1})$ Individualism vs. Collectivism		Distance between the acquiring and target country's position in an index indicating to what degree a country's society is seen as individualist or collectivist. Societies assigned with a high index number are close to individualism, and vice versa.
$(S_{A,2} - S_{T,2})$ Large vs. Small Power Distance		Distance between the acquiring and target country's position in an index indicating which Power Distance is assumed by the society as normal. Societies assigned with a high index number are used to Large Power Distance, and vice versa.
$(S_{A,3} - S_{T,3})$ Strong vs. Weak Uncertainty Avoidance		Distance between the acquiring and target country's position in an index indicating to what degree a country's society dislikes uncertainty in its life. Societies assigned with a high index number are strong uncertainty avoiders, and vice versa.
$(S_{A,4} - S_{T,4})$ Masculinity vs. Femininity		Distance between the acquiring and target country's position in an index indicating to what degree a country's society is seen as masculine or feminine. Societies assigned with a high index number are close to masculinity, and vice versa.

*Compound Annual Growth Rate

Table 8

Industry codes

Code	Industry
1	Agriculture, Forestry and Fishing
2	Mining & Construction
3	Manufacturing
4	Transportation, Communication, Electric, Gas and Sanitary service
5	Wholesale & Retail Trade
6	Finance, Insurance and Real Estate
7	Services, Education & Healthcare

Table 9

OLS-regression results for *Deal Price* including *Industry & Time* coefficients

This table contains results of OLS cross-section regressions with standard errors for the *Deal Price* hypothesis including *Industry*- and *Time Dummy* coefficients. Deals who are realized between 2006 - 2015 are included in the Data Sample. Accounting data covers the time period of 2006 - 2016. Standard errors are presented in parentheses. *Border Dummy* equals to 1 for Cross-border deals. *Financial System Dummy* equals to 1 if the target country has a Market Based Capital System. Further variable descriptions can be found in Table 7 located in the appendix.

	log EV/EBITDA			
	(1)	**(2)**	**(3)**	**(4)**
Constant	-2.7910	-3.6230	-2.7965	-2.3428
	(2.1789)	(2.8641)	(1.9223)	(2.6599)
Border Dummy	0.2363*	0.1944	0.2895***	0.2958*
	(0.1258)	(0.1712)	(0.1060)	(0.1682)
log EV/EBITDA industry	3.8718*	4.6165	4.5784**	4.7276
	(2.2350)	(2.7797)	(2.0728)	(2.8169)
log EBITDA Growth	0.6758*	0.6247	0.7474**	0.7136**
	(0.3588)	(0.3770)	(0.3234)	(0.3327)
log EV			-0.0357	-0.0576
			(0.1620)	(0.1901)
Financial Sponsor Age			-0.0070	-0.0092
			(0.0061)	(0.0080)
log Fund Size			0.2514*	0.2799*
			(0.1249)	(0.1527)
log Debt/EBITDA			-0.0539	-0.0631
			(0.0928)	(0.1050)
LBO Spread			-52.5198***	-62.5297***
			(3.5840)	(20.1074)
log GDP Growth			-5.3400	-2.9533
			(3.5840)	(6.3249)
Financial System Dummy		-0.0390		-0.1458
		(0.2304)		(0.2884)
Creditor Rights		-0.0250		0.0041
		(0.0488)		(0.0747)
Corruption Perception Index		0.0470		-0.0409
		(0.0432)		(0.0562)
log Hofstede Cultural Dimension		-0.0462		-1.1866
		(0.8597)		(0.8324)
Industry=4	0.2267	0.2318	0.1510	0.1517
	(0.2976)	(0.3322)	(0.2617)	(0.2807)
Industry=5	-0.4505**	-0.4935	-0.4538	-0.5020
	(0.2110)	(0.3332)	(0.2971)	(0.4109)
Industry=6	-0.7454	-0.9175	-0.7946*	-0.7485
	(0.4713)	(0.6361)	(0.4170)	(0.6206)
Industry=7	-0.2911	-0.3661	-0.3477	-0.3238
	(0.2209)	(0.2673)	(0.2580)	(0.3231)
Time Dummy=2007	0.0284	0.0557	-0.1946	-0.2509
	(0.1875)	(0.2379)	(0.2628)	(0.2916)
Time Dummy=2008	0.6992	0.8406	0.9669**	1.0765*
	(0.4530)	(0.6772)	(0.4176)	(0.5700)
Time Dummy=2009	0.1801	0.2452	1.4883**	1.5685**
	(0.4047)	(0.4171)	(0.5583)	(0.6234)
Time Dummy=2010	0.1010	0.1210	0.4007	0.3701
	(0.2501)	(0.4236)	(0.3558)	(0.3867)
Time Dummy=2011	0.0856	0.1329	0.4203	0.4742
	(0.2714)	(0.3170)	(0.3165)	(0.3601)
Time Dummy=2012	0.1202	0.2048	0.6975*	0.7140*
	(0.2873)	(0.3703)	(0.3814)	(0.3928)
Time Dummy=2013	0.8339***	0.8154***	1.2535***	1.3357***
	(0.2037)	(0.2706)	(0.2857)	(0.3136)
Time Dummy=2014	0.0943	0.1274	-0.1583	-0.0630
	(0.1877)	(0.2284)	(0.3742)	(0.4660)
Time Dummy=2015	-0.0660	-0.0633	-0.1072	-0.0997
	(0.1644)	(0.2500)	(0.2670)	(0.2654)
Adjusted R-squared	0.159	0.086	0.250	0.179
Observations	55	55	55	55

Significance: p<0.1* p<0.05** p<0.01***

Table 10

OLS-regression results for *Sales Growth* including *Industry & Time* coefficients

This table contains results of OLS cross-section regressions with standard errors for the *Sales Growth* hypothesis including *Industry*- and *Time Dummy* coefficients. Deals who are realized between 2006 - 2015 are included in the Data Sample. Accounting data covers the time period of 2006 - 2016. Standard errors are presented in parentheses. *Border Dummy* equals to 1 for Cross-border deals. *Financial System Dummy* equals to 1 if the target country has a Market Based Capital System. Further variable descriptions can be found in Table 7 located in the appendix.

	log Sales Growth			
	(1)	**(2)**	**(3)**	**(4)**
Constant	-0.0129	0.0555	-0.1697	-0.0012
	(0.0377)	(0.1110)	(0.1512)	(0.2492)
Border Dummy	0.0106	0.0329	0.0248	0.0345
	(0.0349)	(0.0402)	(0.0378)	(0.0407)
log Sales Growth industry	-0.6303	-0.1782	-0.8801	-0.7997
	(1.1006)	(1.5659)	(1.1464)	(1.6476)
log EBITDA-margin @entry	0.1030	0.1083	0.2001	0.1332
	(0.1891)	(0.2411)	(0.1782)	(0.2414)
log EV			0.0442	0.0370
			(0.0374)	(0.0514)
Financial Sponsor Age			-0.0025	-0.0022
			(0.0015)	(0.0020)
log Fund Size			0.0245	0.0209
			(0.0336)	(0.0436)
log Debt/EBITDA			-0.0062	-0.0037
			(0.0206)	(0.0333)
LBO Spread			2.8303	0.0990
			(4.6998)	(7.1887)
log GDP Growth			1.3489	1.4947
			(1.6837)	(1.8378)
Financial System Dummy		0.1001		0.0532
		(0.1257)		(0.1425)
Creditor Rights		-0.0161		-0.0145
		(0.0210)		(0.0274)
Corruption Perception Index		-0.0014		-0.0021
		(0.0092)		(0.0207)
log Hofstede Cultural Dimension		-0.0005		-0.0388
		(0.2842)		(0.3527)
Industry=4	0.0402	0.0382	0.0314	0.0289
	(0.0455)	(0.0511)	(0.0438)	(0.0629)
Industry=5	0.1081**	0.1230*	0.0494	0.0653
	(0.0501)	(0.0705)	(0.0469)	(0.0786)
Industry=6	-0.0101	0.0138	-0.0195	0.0084
	(0.0699)	(0.0573)	(0.0788)	(0.0790)
Industry=7	0.0719*	0.0652	0.0926*	0.0887
	(0.0365)	(0.0435)	(0.0465)	(0.0548)
Time Dummy=2007	0.0088	-0.0056	-0.0304	-0.0379
	(0.0425)	(0.0519)	(0.0672)	(0.0851)
Time Dummy=2008	-0.0064	-0.0385	-0.0556	-0.0476
	(0.0291)	(0.0782)	(0.0716)	(0.1006)
Time Dummy=2009	0.0140	0.0391	-0.1160	-0.0336
	(0.0379)	(0.0569)	(0.1482)	(0.2048)
Time Dummy=2010	-0.0500	-0.0862	-0.0923	-0.1040
	(0.0563)	(0.0795)	(0.0689)	(0.0968)
Time Dummy=2011	-0.0473	0.0303	-0.1022	-0.0680
	(0.0420)	(0.0534)	(0.0795)	(0.0966)
Time Dummy=2012	-0.0446	-0.0463	-0.1178	-0.0918
	(0.0553)	(0.0507)	(0.0950)	(0.1235)
Time Dummy=2013	-0.1321*	-0.1257	-0.2032**	-0.1708
	(0.0733)	(0.0766)	(0.0926)	(0.1238)
Time Dummy=2014	-0.2110**	-0.2238**	-0.2205*	-0.2140
	(0.0970)	(0.1020)	(0.1203)	(0.1394)
Time Dummy=2015	0.0046	-0.0344	-0.0752	-0.0908
	(0.0660)	(0.0846)	(0.0901)	(0.1024)
R-squared	0.032	0.000	-0.007	-0.105
Observations	55	55	55	55

Significance: p<0.1* p<0.05** p<0.01***

Table 11

OLS-regression results for *EBITDA Growth* including *Industry & Time* coefficients

This table contains results of OLS cross-section regressions with standard errors for the *EBITDA Growth* hypothesis including *Industry*- and *Time Dummy* coefficients. Deals who are realized between 2006 - 2015 are included in the Data Sample. Accounting data covers the time period of 2006 - 2016. Standard errors are presented in parentheses. *Border Dummy* equals to 1 for Cross-border deals. *Financial System Dummy* equals to 1 if the target country has a Market Based Capital System. Further variable descriptions can be found in Table 7 located in the appendix.

	log EBITDA Growth			
	(1)	**(2)**	**(3)**	**(4)**
Constant	0.0977	0.0784	-0.0853	-0.1267
	(0.0589)	(0.0988)	(0.1972)	(0.3407)
Border Dummy	-0.0736*	-0.1083**	-0.0806	-0.1148*
	(0.0425)	(0.0532)	(0.0539)	(0.0670)
log EBITDA Growth industry	-1.6588	-2.0975*	-1.5422	-2.4833
	(1.2228)	(1.2262)	(1.5317)	(1.6941)
log EBITDA-margin @entry	0.1320	0.0572	0.1779	0.1407
	(0.2576)	(0.2373)	(0.2731)	(0.3083)
log EV			0.0829	0.0669
			(0.0599)	(0.0739)
Financial Sponsor Age			0.0004	-0.0005
			(0.0022)	(0.0025)
log Fund Size			-0.0242	-0.0175
			(0.0421)	(0.0467)
log Debt/EBITDA			0.0225	0.0126
			(0.0315)	(0.0461)
LBO Spread			1.1363	3.5520
			(5.2176)	(8.9532)
log GDP Growth			-0.7345	0.6693
			(2.0321)	(2.2052)
Financial System Dummy		-0.1066		-0.1166
		(0.0827)		(0.0965)
Creditor Rights		0.0134		0.0126
		(0.0220)		(0.0274)
Corruption Perception Index		-0.0021		0.0038
		(0.0179)		(0.0298)
log Hofstede Cultural Dimension		-0.2019		-0.1648
		(0.2474)		(0.3428)
Industry=4	-0.0929	-0.0956	-0.0448	-0.0756
	(0.0649)	(0.0723)	(0.0724)	(0.0959)
Industry=5	0.0908	0.0494	0.0778	0.0120
	(0.0917)	(0.0960)	(0.1252)	(0.1293)
Industry=6	-0.1154	-0.1439	-0.0852	-0.1448
	(0.0763)	(0.0863)	(0.0809)	(0.1042)
Industry=7	-0.0090	-0.0097	0.0338	0.0211
	(0.0534)	(0.0537)	(0.0663)	(0.0743)
Time Dummy=2007	-0.0039	0.0220	-0.0408	0.0004
	(0.0576)	(0.0560)	(0.0702)	(0.0956)
Time Dummy=2008	-0.0453	0.0132	-0.0744	-0.0211
	(0.0538)	(0.0627)	(0.0746)	(0.1217)
Time Dummy=2009	0.0468	0.0302	-0.0161	-0.0853
	(0.0659)	(0.0757)	(0.1689)	(0.2351)
Time Dummy=2010	-0.0705	-0.0166	-0.0429	-0.0127
	(0.1153)	(0.1375)	(0.0818)	(0.1544)
Time Dummy=2011	-0.0716	-0.0735	-0.0843	-0.1145
	(0.0657)	(0.0676)	(0.0818)	(0.1038)
Time Dummy=2012	-0.0656	-0.0574	-0.1006	-0.1105
	(0.0770)	(0.0902)	(0.1270)	(0.1546)
Time Dummy=2013	-0.2250	-0.2042	-0.2894	-0.2821
	(0.1918)	(0.2116)	(0.2266)	(0.2803)
Time Dummy=2014	-0.0835	-0.0654	-0.1421	-0.0731
	(0.0576)	(0.0694)	(0.1420)	(0.1552)
Time Dummy=2015	0.2085**	0.2490*	0.2125*	0.2262
	(0.1026)	(0.1399)	(0.1159)	(0.1392)
Adjusted R-squared	0.198	0.146	0.103	0.015
Observations	55	55	55	55

Significance: p<0.1* p<0.05** p<0.01***

Table 12

OLS-regression results for *EBITDA-margin delta* including *Industry & Time c*oefficients

This table contains results of OLS cross-section regressions with standard errors for the *EBITDA-margin delta* hypothesis including *Industry-* and *Time Dummy* coefficients. Deals who are realized between 2006 - 2015 are included in the Data Sample. Accounting data covers the time period of 2006 - 2016. Standard errors are presented in parentheses. *Border Dummy* equals to 1 for Cross-border deals. *Financial System Dummy* equals to 1 if the target country has a Market Based Capital System. Further variable descriptions can be found in Table 7 located in the appendix.

	EBITDA-margin delta			
	(1)	**(2)**	**(3)**	**(4)**
Constant	0.0286*	0.0081	0.0390	-0.0584
	(0.0146)	(0.0324)	(0.0633)	(0.0884)
Border Dummy	-0.0079	-0.0227	-0.0065	-0.0168
	(0.0133)	(0.0152)	(0.0160)	(1.086)
EBITDA-margin delta industry	-0.8834	-0.7130	-0.1455	-0.1484
	(0.7943)	(0.8220)	(0.9672)	(1.0863)
log EBITDA-margin @entry	-0.0767	-0.0817	-0.0801	-0.0631
	(0.1348)	(0.1404)	(0.1508)	(0.1568)
log EV			0.0070	0.0190
			(0.0160)	(0.0207)
Financial Sponsor Age			0.0003	0.0000
			(0.0006)	(0.0008)
log Fund Size			-0.0168	-0.0059
			(0.0172)	(0.0194)
log Debt/EBITDA			0.0153	0.0033
			(0.0132)	(0.0173)
LBO Spread			0.6353	1.0182
			(1.7096)	(2.3082)
log GDP Growth			-0.7309	-1.1654
			(0.6794)	(0.8655)
Financial System Dummy		-0.0771**		-0.0639
		(0.0360)		(0.0412)
Creditor Rights		0.0166**		0.0194**
		(0.0071)		(0.0091)
Corruption Perception Index		-0.0087		-0.0099
		(0.0053)		(0.0075)
log Hofstede Cultural Dimension		-0.0771		-0.0567
		(0.0818)		(0.1037)
Industry=4	-0.0342	-0.0239	-0.0111	-0.0055
	(0.0247)	(0.0229)	(0.0218)	(0.0228)
Industry=5	-0.0245	-0.0470	-0.0005	-0.0294
	(0.0245)	(0.0344)	(0.0251)	(0.0367)
Industry=6	-0.0313	-0.0405	-0.0192	-0.0348
	(0.0285)	(0.0245)	(0.0321)	(0.0321)
Industry=7	-0.0195	-0.0156	-0.0076	-0.0012
	(0.0162)	(0.0145)	(0.0163)	(0.0179)
Time Dummy=2007	-0.0242*	-0.0174	-0.0245	-0.0255
	(0.0133)	(0.0150)	(0.0191)	(0.0251)
Time Dummy=2008	-0.0176	0.0120	-0.0303	-0.0161
	(0.0209)	(0.0278)	(0.0261)	(0.0349)
Time Dummy=2009	0.0242	-0.0048	0.0085	-0.0313
	(0.0252)	(0.0297)	(0.0539)	(0.0707)
Time Dummy=2010	0.0048	0.0362	0.0010	0.0325
	(0.0277)	(0.0413)	(0.0366)	(0.0443)
Time Dummy=2011	-0.0113	-0.0150	-0.0158	-0.0297
	(0.0148)	(0.0150)	(0.0246)	(0.0286)
Time Dummy=2012	0.0334	0.0331	0.0020	-0.0006
	(0.0407)	(0.0376)	(0.0479)	(0.0534)
Time Dummy=2013	0.0332	0.0459	0.0034	0.0074
	(0.0462)	(0.0468)	(0.0420)	(0.0510)
Time Dummy=2014	0.0355	0.0511	-0.0120	-0.0265
	(0.0373)	(0.0413)	(0.0504)	(0.0635)
Time Dummy=2015	0.0251	0.0645*	0.0286	0.0531
	(0.0289)	(0.0325)	(0.0397)	(0.0388)
Adjusted R-squared	-0.091	0.016	-0.151	-0.080
Observations	55	55	55	55

Significance: p<0.1* p<0.05** p<0.01***

Table 13

Summary Statistics EU - US sample

Descriptive statistics of the operational performance variables are described beneath per Dealtype and per Region used for additional tests. Region is based on the location of the Platform firm. EV and Fund size is in million dollars.

	Cross-Border							
	Europe				North-America			
	Mean	St. Dev.	Median	Obs.	Mean	St. Dev.	Median	Obs.
EV/EBITDA	17.7710	16.0101	12.8600	17	44.4509	51.5654	17.4669	6
Sales Growth	0.0251	0.2884	-0.0182	17	-0.0334	0.2931	-0.0146	6
EBITDA Growth	-0.2630	0.7016	-0.0965	17	0.0146	0.2638	0.0471	6
EBITDA-margin @entry	0.1914	0.1702	0.1919	17	0.3409	0.1889	0.2672	6
EBITDA-margin @exit	0.2015	0.1985	0.1608	17	0.4518	0.4828	0.2508	6
EV	926.49	1670.36	253.46	17	2792.40	5783.32	521.92	6
Financial Sponsor Age	30.7	13.4	28.0	17	29.8	8.8	31.5	6
Fund Size	4294.16	2981.89	4077.75	17	4338.67	5149.11	2375.00	6
Debt/EBITDA	3.8793	3.3197	2.4685	17	8.7623	13.0863	2.5150	6
LBO Spread	0.0251	0.0062	0.0231	17	0.0283	0.005	0.0291	6

	Domestic							
	Europe				North-America			
	Mean	St. Dev.	Median	Obs.	Mean	St. Dev.	Median	Obs.
EV/EBITDA	-6.2273	141.4393	7.6240	19	12.5993	6.6724	10.8180	9
Sales Growth	-0.0158	0.1469	-0.0055	19	0.0606	0.1017	0.0906	9
EBITDA Growth	-0.1493	0.5904	-0.0246	19	0.3983	0.9791	0.0028	9
EBITDA-margin @entry	0.2917	0.2916	0.2076	19	-11.9131	36.1712	0.0855	9
EBITDA-margin @exit	0.2635	0.2866	0.1794	19	0.1989	0.1506	0.1417	9
EV	458.85	485.85	300.00	19	764.81	645.58	435.00	9
Financial Sponsor Age	28.5	8.0	28.0	19	26.3	8.4	26.0	9
Fund Size	5628.01	3962.11	6124.01	19	6229.84	8822.68	2000.00	9
Debt/EBITDA	4.7872	6.5386	3.1464	19	45.0977	118.9583	2.8930	9
LBO Spread	0.0276	0.0052	0.0268	19	0.0220	0.0047	0.0187	9

	Full Sample			
	Mean	St. Dev.	Median	Obs.
EV/EBITDA	11.0566	88.4306	10.2240	51
Sales Growth	0.0092	0.2137	-0.0047	51
EBITDA Growth	-0.0713	0.7062	-0.0320	51
EBITDA-margin @entry	-1.8897	15.2100	0.2076	51
EBITDA-margin @exit	0.2536	0.2745	0.1786	51
EV	943.26	2212.35	344.07	51
Financial Sponsor Age	29.0	10.1	28.0	51
Fund Size	5137.91	4922.09	4012.48	51
Debt/EBITDA	12.0659	50.4068	2.8930	51
LBO Spread	0.0259	0.0058	0.0267	51

Table 14

Correlation Matrix EU - US sample

	log EV/ EBITDA	log Sales Growth	log EBITDA Growth	EBITDA -margin delta	log EBITDA-margin @entry	log EV/ EBITDA industry	log Sales Growth industry	log EBITDA Growth industry	EBITDA -margin delta industry	log EBITDA -margin @entry industry	log EV	Financial Sponsor Age	log Fund Size	log Debt/ EBITDA	LBO Spread	log GDP Growth	Financial System	Creditor Rights	Corruption Perception Index	log Hofstede Cultural Dimension
log EV/EBITDA	1.0000																			
log Sales Growth	0.0581	1.0000																		
log EBITDA Growth	0.1004	0.3773	1.0000																	
EBITDA-margin delta	0.1159	-0.4818	0.2683	1.0000																
log EBITDA-margin @entry	0.3691	0.0195	-0.0180	-0.1381	1.0000															
log EV/EBITDA industry	0.1086	-0.0909	0.1423	0.0177	0.0082	1.0000														
log Sales Growth industry	-0.1494	0.2811	0.0621	-0.2997	-0.1800	-0.1334	1.0000													
log EBITDA Growth industry	-0.1260	0.1374	-0.0101	-0.2049	-0.0837	-0.1586	0.8630	1.0000												
EBITDA-margin delta industry	0.0529	-0.0472	0.0251	0.0636	0.0823	-0.0607	0.0297	0.3499	1.0000											
log EBITDA-margin @entry industry	0.0180	-0.1221	-0.1664	-0.1083	0.2366	0.0480	-0.0595	-0.0885	-0.1996	1.0000										
log EV	0.1539	0.1172	0.1364	-0.0114	-0.0885	0.0196	0.1051	0.0951	-0.0906	-0.1662	1.0000									
Financial Sponsor Age	-0.0412	0.0423	-0.0025	-0.1170	0.0594	0.0057	0.3967	0.2527	-0.1411	0.0657	-0.0073	1.0000								
log Fund Size	0.1440	0.1082	-0.0057	-0.1939	0.0267	-0.0647	-0.0725	-0.0772	0.0872	0.0686	0.1074	0.0907	1.0000							
log Debt/EBITDA	0.0539	-0.1130	0.0168	0.2243	-0.1492	-0.0477	-0.0869	-0.1151	-0.1966	0.1293	0.1183	-0.0717	0.0616	1.0000						
LBO Spread	-0.1052	-0.0589	-0.1391	0.1923	-0.0448	-0.3018	-0.2902	-0.0806	0.4145	-0.1607	-0.1823	-0.2216	0.0315	-0.0252	1.0000					
log GDP Growth	-0.1068	0.4938	0.0847	-0.3283	-0.1698	-0.1343	0.5529	0.4892	-0.0637	-0.1699	0.2091	0.1763	0.0664	-0.1103	-0.1245	1.0000				
Financial System	-0.0569	0.1704	0.0657	-0.1896	-0.2285	0.1673	0.0438	-0.1195	-0.1244	-0.1075	0.0093	-0.1989	0.0247	0.0727	-0.3299	0.3444	1.0000			
Creditor Rights	-0.0768	0.0098	0.0359	-0.0374	-0.3417	0.2616	0.1116	-0.0514	-0.1957	-0.1234	0.0311	0.0091	0.0217	0.1355	-0.3057	0.3676	0.7955	1.0000		
Corruption Perception Index	0.0089	-0.0741	-0.0385	-0.1152	-0.1670	0.2879	0.1534	0.1038	-0.0804	0.0433	0.0576	0.3120	0.2720	-0.2049	-0.1259	0.2200	0.2351	0.5142	1.0000	
log Hofstede Cultural Dimension	-0.0488	-0.0267	-0.0880	-0.0409	-0.0267	-0.3638	0.0563	0.1765	0.0779	-0.0146	-0.0376	-0.0295	-0.0034	-0.0789	0.1231	0.0960	-0.2372	-0.1802	-0.2502	1.0000

Table 15

OLS-regression results for *Deal Price* including *Industry & Time* and *Interaction* coefficients (EU - US sample)

This table contains the results of *Deal Price* OLS cross-section regressions with standard errors for the EU-US sample. Deals who are realized between 2006 - 2015 are included in the Data Sample. Accounting data covers the time period of 2006 - 2016. Standard errors are presented in parentheses. *Border Dummy* equals to 1 for Domestic deals. *Region Dummy* equals to 1 for North-American platform firms. So, the base case are European Platform firms engaging cross-border deals in (2), (4), (6), and (8). *Financial System Dummy* equals to 1 if the target country has a Market Based Capital System. Further variable descriptions can be found in Table 7 located in the appendix. P-values of F-tests hypothesizing no difference in cross-border deals across regions are provided on the bottom of this Table.

	log EV/EBITDA							
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
Constant	-3.2189	-3.2898	-3.2976	-4.1776	-1.4700	-1.5014	-0.6142	-1.1744
	(2.4074)	(2.4773)	(3.4558)	(3.6275)	(2.8981)	(3.0697)	(3.8364)	(3.8800)
Border Dummy	-0.2369		-0.2338		-0.2405*		-0.3161	
	(0.1538)		(0.2462)		(0.1239)		(0.2512)	
Region Dummy	-0.0995		0.2034		0.1665		0.2813	
	(0.1179)		(0.1607)		(0.1231)		(0.1973)	
*Border Dummy * Region Dummy*								
0 1		-0.0995		-0.1906		-0.0679		-0.0082
		(0.2248)		(0.2791)		(0.2432)		(0.2883)
1 0		-0.3378		-0.3618		-0.3490*		-0.3822
		(0.2248)		(0.2932)		(0.2017)		(0.2948)
1 1		0.1144		0.1312		-0.0105		0.0889
		(0.1847)		(0.3131)		(0.1945)		(0.3230)
log EV/EBITDA industry	4.5704*	4.6433*	5.0082	5.6967*	4.0581	4.1271	4.1515	4.5719
	(2.5198)	(2.5896)	(3.1098)	(3.2575)	(2.4886)	(2.5827)	(3.2615)	(3.3353)
log EBITDA Growth	0.5882	0.7048*	0.4492	0.6236	0.6383*	0.7556**	0.5612	0.6973*
	(0.3732)	(0.3714)	(0.4463)	(0.4018)	(0.3695)	(0.3553)	(0.3996)	(0.3768)
log EV					-0.0328	-0.0172	-0.1043	-0.1215
					(0.1631)	(0.1470)	(0.1886)	(0.1878)
Financial Sponsor Age					-0.0077	-0.0052	-0.0102	-0.0071
					(0.0071)	(0.0085)	(0.0100)	(0.0114)
log Fund Size					0.2630	0.2400	0.3378*	0.2715
					(0.1592)	(0.1735)	(0.1787)	(0.2034)
log Debt/EBITDA					-0.1031	-0.1125	-0.1051	-0.0992
					(0.1058)	(0.1033)	(0.0990)	(0.1020)
LBO Spread					-74.9158*	-80.6522*	-76.4198*	-79.2873*
					(39.3317)	(43.0864)	(41.0844)	(42.1156)
log GDP Growth					-7.0772*	-8.6429**	0.0905	-2.0841
					(4.0032)	(3.2716)	(7.9100)	(6.1089)
Financial System Dummy			0.0132	0.0543			-0.2214	-0.1176
			(0.2829)	(0.2764)			(0.3437)	(0.3764)
Creditor Rights			-0.0519	-0.0943			-0.0084	-0.0446
			(0.0612)	(0.0844)			(0.0765)	(0.1005)
Corruption Perception Index			0.0126	0.0725			-0.0783	-0.0168
			(0.0894)	(0.1067)			(0.1076)	(0.1050)
log Hofstede Cultural Dimension			0.0947	-0.4347			-0.0788	-0.4117
			(0.9725)	(1.0621)			(0.8746)	(0.8280)

Table 15 (continued)

OLS-regression results for *Deal Price* including *Industry & Time* and *Interaction* coefficients (EU - US sample)

	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
Industry=4	0.2961	0.2949	0.3249	0.3014	0.1731	0.1894	0.1744	0.1725
	(0.3163)	(0.3245)	(0.3439)	(0.3479)	(0.2603)	(0.2675)	(0.3117)	(0.3267)
Industry=5	-0.4914*	-0.5298*	-0.4681	-0.6507	-0.3934	-0.4076	-0.4504	-0.4971
	(0.2500)	(0.2746)	(0.4068)	(0.4529)	(0.3917)	(0.3919)	(0.4886)	(0.5032)
Industry=6	-0.8013	-0.8384	-0.7890	-1.0283	-0.6218	-0.6430	-0.4975	-0.6638
	(0.5055)	(0.5141)	(0.6969)	(0.7344)	(0.5103)	(0.5117)	(0.7285)	(0.7211)
Industry=7	-0.3863	-0.4010	-0.4115	-0.5449	-0.3104	-0.3306	-0.2989	-0.4100
	(0.2600)	(0.2576)	(0.3066)	(0.3275)	(0.3249)	(0.3121)	(0.3631)	(0.3760)
Time Dummy=2007	-0.0388	-0.0145	-0.1347	-0.0399	-0.4467	-0.4002	-0.6352	-0.4692
	(0.2517)	(0.2607)	(0.3455)	(0.3301)	(0.3243)	(0.3606)	(0.3740)	(0.3761)
Time Dummy=2008	0.7871	0.8480	0.7878	1.0770	0.9001**	1.0454**	0.8583	1.1413*
	(0.4851)	(0.5008)	(0.7945)	(0.8418)	(0.4050)	(0.4647)	(0.6376)	(0.6337)
Time Dummy=2009	0.6774*	0.7888*	0.6685	0.9436*	1.6137*	1.9000*	1.512*	1.8850*
	(0.3682)	(0.4081)	(0.4160)	(0.4901)	(0.7963)	(0.9960)	(0.8429)	(1.0375)
Time Dummy=2010	0.1093	0.2453	-0.1085	0.1303	0.3192	0.5686	0.1959	0.4452
	(0.3685)	(0.4252)	(0.5366)	(0.5967)	(0.6853)	(0.8410)	(0.6931)	(0.7482)
Time Dummy=2011	0.1144	0.2106	0.0596	0.3240	0.3226	0.5132	0.2013	0.4951
	(0.3195)	(0.3537)	(0.3851)	(0.4421)	(0.4645)	(0.6096)	(0.4359)	(0.5791)
Time Dummy=2012	0.1285	0.2181	-0.0191	0.2845	0.7890	1.0174	0.4620	0.8446
	(0.3007)	(0.3182)	(0.4608)	(0.4625)	(0.6721)	(0.8429)	(0.6594)	(0.7728)
Time Dummy=2013	0.7572***	0.9163***	0.5617	0.9293**	1.2443*	1.5153*	1.0681*	1.4472*
	(0.2451)	(0.3196)	(0.3931)	(0.4067)	(0.6089)	(0.7924)	(0.6058)	(0.7374)
Time Dummy=2014	0.0465	0.1693	-0.0654	0.2296	-0.3471	-0.1948	-0.2148	0.0222
	(0.2281)	(0.2743)	(0.3339)	(0.3602)	(0.5260)	(0.5953)	(0.5143)	(0.6694)
Time Dummy=2015	-0.0698	-0.0987	-0.1564	-0.2395	-0.1332	-0.0764	-0.2768	-0.2047
	(0.2142)	(0.2270)	(0.2837)	(0.2671)	(0.4380)	(0.5031)	(0.4296)	(0.4502)
Observations	51	51	51	51	51	51	51	51
Adjusted R-squared	0.142	0.137	0.072	0.113	0.211	0.217	0.157	0.1533
Cross-border EU = Cross-border NA		0.540		0.679		0.957		0.786

Significance: p<0.1* p<0.05** p<0.01***

Table 16

OLS-regression results for *Sales Growth* including *Industry & Time* and *Interaction* coefficients (EU - US sample)

This table contains the results of *Sales Growth* OLS cross-section regressions with standard errors for the EU-US sample. Deals who are realized between 2006 - 2015 are included in the Data Sample. Accounting data covers the time period of 2006 - 2016. Standard errors are presented in parentheses. *Border Dummy* equals to 1 for Domestic deals. *Region Dummy* equals to 1 for North-American Platform firms. So, the base case are European Platform firms engaging cross-border deals in (2), (4), (6), and (8). *Financial System Dummy* equals to 1 if the target country has a Market Based Capital System. Further variable descriptions can be found in Table 7 located in the appendix. P-values of F-tests hypothesizing no difference in cross-border deals across regions are provided on the bottom of this Table.

	log Sales Growth							
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
Constant	0.0036	0.0089	0.2664	0.2892	-0.2441	-0.1997	-0.0722	0.0779
	(0.0345)	(0.0329)	(0.2712)	(0.2904)	(0.3227)	(0.3463)	(0.4015)	(0.4367)
Border Dummy	-0.0077		-0.0483		-0.0234		-0.0843	
	(0.0408)		(0.0567)		(0.0436)		(0.0630)	
Region Dummy	0.0228		0.0255		0.0039		0.0352	
	(0.0368)		(0.0492)		(0.0416)		(0.0511)	
*Border Dummy * Region Dummy*								
0 1		0.0713		0.0775		0.0930		0.1823
		(0.0873)		(0.0115)		(0.0906)		(0.1313)
1 0		0.0170		-0.0299		0.0203		-0.0423
		(0.0619)		(0.0509)		(0.0650)		(0.0534)
1 1		0.0009		-0.0474		-0.0570		-0.1189
		(0.0516)		(0.0816)		(0.0615)		(0.0876)
log Sales Growth industry	-0.4149	-0.7152	0.5497	0.4641	-1.0990	-1.9080	0.4340	-0.3045
	(1.2628)	(1.1757)	(1.9249)	(1.8378)	(1.3251)	(1.5469)	(2.1710)	(1.7567)
log EBITDA-margin @entry	0.1036	0.0073	0.1039	0.0404	0.2789	0.1283	0.2290	0.0748
	(0.2073)	(0.2901)	(0.2835)	(0.3110)	(0.0016)	(0.2255)	(0.2677)	(0.2620)
log EV					0.0421	0.0302	0.0398	0.0320
					(0.0418)	(0.0479)	(0.0561)	(0.0590)
Financial Sponsor Age					-0.0030*	-0.0036*	-0.0014	-0.0030
					(0.0016)	(0.0021)	(0.0024)	(0.0026)
log Fund Size					0.0400	0.0475	0.0836	0.1118*
					(0.0401)	(0.0381)	(0.0505)	(0.0553)
log Debt/EBITDA					-0.0065	-0.0072	-0.0155	-0.0181
					(0.0196)	(0.0213)	(0.0287)	(0.0284)
LBO Spread					9.1045	9.5170	14.6615	14.0787
					(13.0790	(12.8130)	(13.5309)	(13.1954)
log GDP Growth					1.9107	2.6939	1.9445	3.6148
					(2.1062)	(2.5246)	(2.0546)	(2.7993)
Financial System Dummy			0.1516	0.1453			0.1046	0.0391
			(0.1608)	(0.1461)			(0.1790)	(0.1317)
Creditor Rights			-0.0274	-0.0225			-0.0180	-0.0026
			(0.0289)	(0.0237)			(0.0313)	(0.0236)
Corruption Perception Index			-0.0124	-0.0187			-0.0435	-0.0668
			(0.0245)	(0.0310)			(0.0372)	(0.0424)
log Hofstede Cultural Dimension			0.0898	0.1542			0.0637	0.2051
			(0.3509)	(0.4136)			(0.3820	(0.3917)

Table 16 (continued)

OLS-regression results for *Sales Growth* including *Industry & Time* and *Interaction* coefficients (EU - US sample)

	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
Industry=4	0.0500	0.0499	0.0487	0.0560	0.0207	0.0075	0.0190	0.0213
	(0.0503)	(0.0538)	(0.0583)	(0.0657)	(0.0492)	(0.0554)	(0.0670)	(0.0678)
Industry=5	0.1031*	0.1073*	0.1371*	0.1496	0.0327	0.0345	0.0270	0.0296
	(0.0555)	(0.0550)	(0.0803)	(0.0883)	(0.0598)	(0.0618)	(0.0776)	(0.0766)
Industry=6	-0.0035	-0.0003	0.0617	0.0754	-0.0361	-0.0415	0.0529	0.0846
	(0.0747)	(0.0732)	(0.0755)	(0.0890)	(0.0784)	(0.0824)	(0.0881)	(0.0913)
Industry=7	0.0674	0.0735*	0.0528	0.0646	0.0919	0.1018	0.0630	0.1048
	(0.0398)	(0.0412)	(0.0473)	(0.0459)	(0.0595)	(0.0647)	(0.0746)	(0.0767)
Time Dummy=2007	-0.0151	-0.0086	-0.0668	-0.0704	-0.0824	-0.0774	-0.1520	-0.2032
	(0.0558)	(0.0571)	(0.1087)	(0.1084)	(0.0652)	(0.0694)	(0.1277)	(0.1258)
Time Dummy=2008	-0.0184	-0.0240	-0.0958	-0.1133	-0.1607	-0.1867	-0.2737	-0.3431*
	(0.0349)	(0.0377)	(0.1333)	(0.1449)	(0.1130)	(0.1186)	(0.1944)	(0.1977)
Time Dummy=2009	-0.0105	-0.0329	0.0745	0.0467	-0.2718	-0.3337	-0.2837	-0.4155
	(0.0562)	(0.0741)	(0.0876)	(0.0825)	(0.2560)	(0.2641)	(0.2530	(0.2817)
Time Dummy=2010	-0.0612	-0.0862	-0.1573	-0.1808	-0.2030	-0.2708*	-0.3244	-0.4153*
	(0.0767)	(0.0823)	(0.1471)	(0.1642)	(0.1514)	(0.1567)	(0.2064)	(0.2217)
Time Dummy=2011	-0.0653	-0.0839	-0.0547	-0.0778	-0.2166*	-0.2704*	-0.2441	-0.3531*
	(0.0532)	(0.0632)	(0.0896)	(0.0961)	(0.1184)	(0.1347)	(0.1425)	(0.1760)
Time Dummy=2012	-0.0582	-0.0746	-0.1043	-0.1295	-0.2717	-0.3228	-0.4383*	-0.5660**
	(0.0551)	(0.0539)	(0.0923)	(0.1092)	(0.2037)	(0.2011)	(0.2320)	(0.2683)
Time Dummy=2013	-0.1508*	-0.1814*	-0.1692	-0.2061	-0.3330*	-0.4034**	-0.4083*	-0.5482**
	(0.0778)	(0.0905)	(0.1144)	(0.1374)	(0.1637)	(0.1730)	(0.2081)	(0.2458)
Time Dummy=2014	-0.2221**	-0.2549*	-0.2578**	-0.2915*	-0.2931**	-0.3436**	-0.3438*	-0.4235*
	(0.1046)	(0.1363)	(0.1250)	(0.1566)	(0.1305)	(0.1661)	(0.1744)	(0.2113)
Time Dummy=2015	0.0027	0.0019	-0.0282	-0.0199	-0.1787	-0.2088	-0.2165	-0.2635*
	(0.0785)	(0.0822)	(0.1002)	(0.1002)	(0.1203)	(0.1349)	(0.1424)	(0.1529)
Adjusted R-squared	-0.031	-0.0408	-0.025	-0.038	-0.071	-0.022	-0.065	0.054
Observations	51	51	51	51	51	51	51	51
Cross-border EU = Cross-border NA		0.987		0.566		0.363		0.189

Significance: p<0.1* p<0.05** p<0.01***

Table 17

OLS-regression results for *EBITDA Growth* including *Industry & Time* and *Interaction* coefficients (EU - US sample)

This table contains the results of *EBITDA Growth* OLS cross-section regressions with standard errors for the EU-US sample. Deals who are realized between 2006 - 2015 are included in the Data Sample. Accounting data covers the time period of 2006 - 2016. Standard errors are presented in parentheses. *Border Dummy* equals to 1 for Domestic deals. *Region Dummy* equals to 1 for North-American Platform firms. So, the base case are European Platform firms engaging cross-border deals in (2), (4), (6), and (8). *Financial System Dummy* equals to 1 if the target country has a Market Based Capital System. Further variable descriptions can be found in Table 7 located in the appendix. P-values of F-tests hypothesizing no difference in cross-border deals across regions are provided on the bottom of this Table.

	log EBITDA Growth							
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
Constant	0.0590	0.0623	0.0234	0.0801	-0.3639	-0.3280	-0.2154	-0.0227
	(0.0391)	(0.0392)	(0.2012)	(0.2002)	(0.3492)	(0.3539)	(0.4323)	(0.4532)
Border Dummy	0.0906*		0.1168		0.0927		0.1143	
	(0.0501)		(0.0711)		(0.0609)		(0.0976)	
Region Dummy	0.0585		0.0826		0.0641		0.0720	
	(0.0712)		(0.0946)		(0.0930)		(0.1070)	
*Border Dummy * Region Dummy*								
0 1		0.1779		0.2120		0.1689		0.2639
		(0.1173)		(0.1441)		(0.1269)		(0.1667)
1 0		0.1539**		0.1625*		0.1476*		0.1767
		(0.0667)		(0.0863)		(0.0758)		(0.1117)
1 1		0.1172		0.1394		0.1172		0.1018
		(0.0783)		(0.1013)		(0.1017)		(0.1154)
log EBITDA Growth industry	-1.2280	-1.6905	-1.7583	-1.8548	-1.1211	-1.7419	-1.9994	-2.8806
	(1.5701)	(1.4975)	(1.4666)	(1.5149)	(2.0969)	(2.0305)	(2.0870)	(2.2301)
log EBITDA-margin @entry	0.1288	-0.0970	-0.0135	-0.1668	0.1394	-0.0259	0.0801	-0.1116
	(0.2845)	(0.2421)	(0.2505)	(0.2665)	(0.2986)	(0.3037)	(0.3143)	(0.3315)
log EV					0.0722	0.0593	0.0517	0.0397
					(0.0559)	(0.0656)	(0.0793)	(0.0832)
Financial Sponsor Age					0.0004	-0.0004	-0.0006	-0.0029
					(0.0027)	(0.0028)	(0.0033)	(0.0035)
log Fund Size					0.0063	0.0153	0.0006	0.0350
					(0.0416)	(0.0412)	(0.0647)	(0.0639)
log Debt/EBITDA					-0.0001	-0.0023	-0.0020	-0.0056
					(0.0365)	(0.0388)	(0.0466)	(0.0481)
LBO Spread					10.2835	10.9067	6.6811	5.6733
					(13.4150)	(14.0161)	(15.1655)	(15.3165)
log GDP Growth					-1.3082	-0.4225	0.4355	2.8434
					(2.6490)	(2.4379)	(2.8858)	(2.9393)
Financial System Dummy			-0.0770	-0.0920			-0.0960	-0.1882
			(0.0811)	(0.0840)			(0.1298)	(0.1465)
Creditor Rights			-0.0017	0.0103			0.0039	0.0232
			(0.0245)	(0.0237)			(0.0331)	(0.0325)
Corruption Perception Index			0.0089	-0.0069			0.0047	-0.0225
			(0.0325)	(0.0321)			(0.0557)	(0.0544)
log Hofstede Cultural Dimension			-0.1186	0.0450			-0.1177	0.0759
			(0.3325)	(0.3530)			(0.4136)	(0.4180)

Table 17 (continued)

OLS-regression results for *EBITDA Growth* including *Industry & Time* and *Interaction* coefficients (EU - US sample)

	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
Industry=4	-0.0661	-0.0684	-0.0685	-0.0500	-0.0457	-0.0647	-0.0615	-0.0673
	(0.0692)	(0.0698)	(0.1184)	(0.0744)	(0.0902)	(0.1003)	(0.1038)	(0.1001)
Industry=5	0.0760	0.0779	0.0476	0.0770	0.0384	0.0289	0.0068	-0.0032
	(0.1065)	(0.1082)	(0.1106)	(0.1102)	(0.1343)	(0.1328)	(0.1415)	(0.1398)
Industry=6	-0.0901	-0.0811	-0.1016	-0.0655	-0.0867	-0.0920	-0.1085	-0.0727
	(0.0829)	(0.0784)	(0.1045)	(0.1034)	(0.0942)	(0.0963)	(0.1240)	(0.1172)
Industry=7	-0.0221	-0.0136	-0.0217	0.0055	0.0004	0.0038	0.0019	0.0489
	(0.0569)	(0.0544)	(0.0575)	(0.0562)	(0.0846)	(0.0915)	(0.0921)	(0.0874)
Time Dummy=2007	-0.0907	-0.0716	-0.0624	-0.0723	-0.0984	-0.0885	-0.0785	-0.1358
	(0.0898)	(0.0859)	(0.1184)	(0.1213)	(0.1036)	(0.1086)	(0.1470)	(0.1441)
Time Dummy=2008	-0.0974	-0.1039	-0.0400	-0.0828	-0.1799	-0.2020	-0.0999	-0.1744
	(0.0630)	(0.0620)	(0.0969)	(0.0990)	(0.1237)	(0.1339)	(0.1926)	(0.1975)
Time Dummy=2009	-0.0052	-0.0483	-0.0324	-0.0989	-0.2185	-0.2781	-0.1822	-0.3343
	(0.0959)	(0.0985)	(0.1460)	(0.1600)	(0.2850)	(0.2995)	(0.3090)	(0.3382)
Time Dummy=2010	-0.1627	-0.2117	-0.1387	-0.1954	-0.2398	-0.3060	-0.1741	-0.2730
	(0.1406)	(0.1436)	(0.1978)	(0.2028)	(0.2178)	(0.2216)	(0.2760)	(0.2735)
Time Dummy=2011	-0.1453*	0.1811**	-0.1470	-0.2023	-0.2304	-0.2829*	-0.2154	-0.3462*
	(0.0786)	(0.0843)	(0.1073)	(0.1210)	(0.1405)	(0.1509)	(0.1651)	(0.1802)
Time Dummy=2012	-0.1303	-0.1535**	-0.1258	-0.1848	-0.2911	-0.3315	-0.2358	-0.3729
	(0.0773)	(0.0737)	(0.1293)	(0.1240)	(0.2311)	(0.2359)	(0.2994)	(0.29823)
Time Dummy=2013	-0.3003	-0.3572	-0.2997	-0.3873	-0.4510	-0.5124	-0.3987	-0.5551
	(0.2208)	(0.2277)	(0.2689)	(0.2831)	(0.3094)	(0.3208)	(0.3752)	(0.3850)
Time Dummy=2014	-0.1401**	-0.2023**	-0.1287	-0.2075*	-0.2585	-0.2975	-0.1650	-0.2363
	(0.0642)	(0.0919)	(0.0866)	(0.1072)	(0.1912)	(0.2211)	(0.2308)	(0.2488)
Time Dummy=2015	0.1852*	0.2018*	0.1910	0.2167	0.1252	0.1117	0.1354	0.0956
	(0.1059)	(0.1128)	(0.1436)	(0.1439)	(0.1334)	(0.1408)	(0.1713)	(0.1758)
Adjusted R-squared	0.169	0.211	0.102	0.142	0.042	0.069	-0.010	-0.007
Observations	51	51	51	51	51	51	51	51
Cross-border EU = Cross-border NA		0.144		0.180		0.260		0.387

Significance: p<0.1* p<0.05** p<0.01***

Table 18

OLS-regression results for *EBITDA-margin delta* including *Industry & Time* and *Interaction* coefficients (EU - US sample)

This table contains the results of *EBITDA-margin delta* OLS cross-section regressions with standard errors for the EU-US sample. Deals who are realized between 2006 - 2015 are included in the Data Sample. Accounting data covers the time period of 2006 - 2016. Standard errors are presented in parentheses. *Border Dummy* equals to 1 for Domestic deals. *Region Dummy* equals to 1 for North-American Platform firms. So, the base case are European Platform firms engaging cross-border deals in (2), (4), (6), and (8). *Financial System Dummy* equals to 1 if the target country has a Market Based Capital System. Further variable descriptions can be found in Table 7 located in the appendix. P-values of F-tests hypothesizing no difference in cross-border deals across regions are provided on the bottom of this Table.

	log EBITDA-margin delta							
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
Constant	0.0303**	0.0290**	0.0113	-0.0013	0.0709	0.0541	0.0294	-0.0112
	(0.0139)	(0.0132)	(0.0833)	(0.0898)	(0.1333)	(0.1312)	(0.1506)	(0.1576)
Border Dummy	0.0111		0.0161		0.0116		0.0225	
	(0.0147)		(0.0190)		(0.0164)		(0.0201)	
Region Dummy	0.0225		0.0296*		0.0281		0.0234	
	(0.0140)		(0.0170)		(0.0170)		(0.0186)	
*Border Dummy * Region Dummy*								
0 1		-0.0011		0.0087		-0.0119		-0.0220
		(0.0349)		(0.0417)		(0.0342)		(0.0450)
1 0		-0.0003		0.0097		-0.0070		0.0121
		(0.0235)		(0.0197)		(0.0242)		(0.0214)
1 1		0.0389**		0.0555**		0.0518***		0.0674**
		(0.0153)		(0.0249)		(0.0179)		(0.0302)
EBITDA-margin delta industry	-0.5556	-0.6101	-0.3083	-0.4155	0.1203	0.1232	-0.0166	-0.0917
	(0.7986)	(0.8349)	(0.7829)	(0.7892)	(0.9525)	(0.9232)	(1.0011)	(0.9217)
log EBITDA-margin @entry	-0.0900	-0.0477	-0.1024	-0.0772	-0.1543	-0.0941	-0.1222	-0.0812
	(0.1450)	(0.1516)	(0.1428)	(0.1427)	(0.1695)	(0.1677)	(0.1664)	(0.1692)
log EV					0.0034	0.0083	0.0120	0.0129
					(0.0146)	(0.0172)	(0.0211)	(0.0222)
Financial Sponsor Age					0.0006	0.0009	0.0000	0.0004
					(0.0007)	(0.0008)	(0.0010)	(0.0009)
log Fund Size					-0.0148	-0.0182	-0.0142	-0.0239
					(0.0204)	(0.0184)	(0.0217)	(0.0228)
log Debt/EBITDA					0.0056	0.0062	0.0009	0.0019
					(0.0152)	(0.0149)	(0.0173)	(0.0172)
LBO Spread					-1.6519	-1.7214	-3.5729	-3.5707
					(5.5261)	(5.1124)	(5.9264)	(5.8694)
log GDP Growth					-1.1827	-1.3988	-1.1807	-1.5562
					(0.8496)	(0.8533)	(0.9549)	(1.0413)
Financial System Dummy			-0.0877*	-0.0853*			-0.0761	-0.0599
			(0.0495)	(0.0457)			(0.0516)	(0.0406)
Creditor Rights			0.0166	0.0146			0.0180	0.0131
			(0.0101)	(0.0096)			(0.0110)	(0.0095)
Corruption Perception Index			-0.0107	-0.0079			-0.0052	0.0033
			(0.0088)	(0.0108)			(0.0111)	(0.0137)
log Hofstede Cultural Dimension			-0.0782	-0.1043			-0.0708	-0.1205
			(0.1052)	(0.1170)			(0.1207)	(0.1163)

Table 18 (continued)

OLS-regression results for *EBITDA-margin delta* including *Industry & Time* and *Interaction* coefficients (EU - US sample)

	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
Industry=4	-0.0263	-0.0280	-0.0089	-0.0130	-0.0055	-0.0040	0.0053	0.0014
	(0.0236)	(0.0253)	(0.0204)	(0.0204)	(0.0241)	(0.0245)	(0.0250)	(0.0257)
Industry=5	-0.0311	-0.0323	-0.0446	-0.0499	-0.0033	-0.0033	-0.0213	-0.0225
	(0.0239)	(0.0253)	(0.0341)	(0.0359)	(0.0277)	(0.0279)	(0.0377)	(0.0363)
Industry=6	-0.0277	-0.0320	-0.0282	-0.0354	-0.0121	-0.0164	-0.0235	-0.0389
	(0.0236)	(0.0270)	(0.0253)	(0.0247)	(0.0332)	(0.0290)	(0.0309)	(0.0298)
Industry=7	-0.0260	-0.0269	-0.0151	-0.0192	-0.0194	-0.0204	0.0046	-0.0156
	(0.0166)	(0.0174)	(0.0162)	(0.0173)	(0.0206)	(0.0207)	(0.0224)	(0.0230)
Time Dummy=2007	-0.0435	-0.0444**	-0.0312	-0.0281	-0.0288	-0.0267	-0.0249	-0.0048
	(0.0207)	(0.0210)	(0.0303)	(0.0313)	(0.0256)	(0.0280)	(0.0369)	(0.0416)
Time Dummy=2008	-0.0273	-0.0246	0.0100	0.0181	-0.0049	0.0047	0.0357	0.0614
	(0.0267)	(0.0294)	(0.0466)	(0.0496)	(0.0500)	(0.0505)	(0.0726)	(0.0727)
Time Dummy=2009	0.0049	0.0177	-0.0252	-0.0122	0.0453	0.0726	0.0417	0.0850
	(0.0306)	(0.0384)	(0.0294)	(0.0319)	(0.1023)	(0.1010)	(0.1149)	(0.1159)
Time Dummy=2010	-0.0134	-0.0007	0.0418	0.0532	0.0085	0.0377	0.0785	0.1097
	(0.0344)	(0.0386)	(0.0671)	(0.0690)	(0.0714)	(0.0750)	(0.0973)	(0.0994)
Time Dummy=2011	-0.0296	-0.0216	-0.0270	-0.0170	-0.0031	0.0163	0.0068	0.0396
	(0.0242)	(0.0289)	(0.0269)	(0.0319)	(0.0531)	(0.0544)	(0.0607)	(0.0665)
Time Dummy=2012	0.0159	0.0224	0.0099	0.0222	0.0366	0.0531	0.0737	0.1159
	(0.0493)	(0.0518)	(0.0528)	(0.0574)	(0.0953)	(0.0929)	(0.1117)	(0.1157)
Time Dummy=2013	0.0115	0.0240	0.0201	0.0360	0.0247	0.0485	0.0571	0.1003
	(0.0469)	(0.0543)	(0.0492)	(0.0576)	(0.0730)	(0.0754)	(0.0921)	(0.1005)
Time Dummy=2014	0.0190	0.0309	0.0343	0.0488	-0.0195	-0.0027	0.0014	0.0288
	(0.0456)	(0.0516)	(0.0561)	(0.0613)	(0.0542)	(0.0510)	(0.0733)	(0.0665)
Time Dummy=2015	0.0252	0.0225	0.0537	0.0512	0.0544	0.0578	0.0835	0.0942
	(0.0288)	(0.0285)	(0.0434)	(0.0424)	(0.0503)	(0.0500)	(0.0631)	(0.0623)
Adjusted R-squared	-0.073	-0.077	0.023	0.009	-0.126	-0.069	-0.121	-0.081
Observations	51	51	51	51	51	51	51	51
Cross-border EU = Cross-border NA		0.036		0.008		0.034		0.016

Significance: p<0.1* p<0.05** p<0.01***