PRIVATE EQUITY AND ASSET FLIPPING

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My name is Paulo Egídio Morais de Andrade, I'm 23 years old and I live in Braga. In 2013, I've finished my bachelor degree in Management at Minho University. At that time, finance was the topic that I found more interesting across all course. Therefore, I'm currently attending the Master in Finance at Economics and Management School, in Porto, which I plan to finish this year, by the end of September.

In January of this year, I have done an internship at Ernest & Young Audit and Associates, as part of the assurance department. From September, I will work at Deloitte, also as part of the assurance department.

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Abstract

Occasionally, private equity funds hold an investment for short periods of time (sometimes less than one year), hardly leaving enough time for introducing standard LBO management measures. Understanding what determines the occurrence of such investments and how those companies perform compared with standard buyout strategies is the objective of this study. With that purpose, a sample of 338 European companies exited by a private equity fund (which 22% correspond to investments held for less than two years) was gathered and analyzed. First, a Wilcoxon rank sum (Mann-Whitney) test is considered to understand if both quick flip and non-quick flip subsamples are part of the same population. Second, a logistic regression model that accounts for private equity and portfolio company's explanatory variables is estimated to understand what determines the early exit of investments. Conclusions point to the importance of the private equity fund characteristics, particularly its maturity. Regarding the operational performance, quick flips are clearly outperformed by non-quick flip companies, especially regarding its efficiency in asset utilization. However, results suggest that companies that are quickly flipped have the capacity to generate profits, exhibiting positive relation with increases in EBIT margin.

Key words: Asset flipping, quick flip, private equity, operating performance

Sumário

Ocasionalmente, fundos de capital privado seguram investimentos por curtos períodos de tempo (por vezes, menos de um ano), sendo que dificlmente existe tempo suficiente para implementar uma estratégia "LBO" habitual. Entender o que determina a ocorrência de tais investimentos e como essas empresas se comportam em termos de performance comparando com estratégias buyout "standard" é o objetivo deste estudo. Com esse propósito, uma amostra de 338 empresas Europeias, cuja saída do fundo é conhecida (em que 22% correspondem a investimentos mantidos por dois anos) foi reunida e analisada. Primeiro, um teste Wilcoxon rank sum (Mann-Whitney) foi considerado para perceber se as duas sub-amostras ("quick flips" e "não-quick flips") fazem parte da mesma população. Segundo, um modelo de regressão logit que tem em conta variáveis explicatórias de fundos de capital privado e de empresas que estes detêm foi estimado, no sentido de perceber que factores são determinantes para a saída precoce de certos investimentos. As conclusões retiradas indicam que o fundo de capital privado subjacente a cada transacção é um factor determinante, nomeadamente a maturidade do fundo em causa. Ao nível da performance operacional, os "quick flips" são claramente superados pelos "não-quick flips", especialmente no que toca à eficiência com que utilizam os seus ativos. No entanto, os resultados sugerem que as empresas que são rapidamente vendidas têm a capacidade de gerar lucros, exibindo uma relação positiva com o aumento da margem RAJI.

Palavras-chave: "Asset flipping", "quick flip", capital privado, performance operacional

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1 Introduction

Asset flipping has been a worldwide discussed topic, however few studies were made to understand why private equity funds exit an investment within less than two years after the acquisition, without having the proper time to implement a well-developed buyout strategy or to fully realize the true value potential of the business.

Two decades ago, Jensen (1989) and Rappaport (1990) segregated individuals concerning the time horizon of private equity investments. The first argued that investments take time to generate abnormal returns, and the latter defended buyout investments as a "shock therapy" to quick restructure companies, in order to return to public markets in a few years. Subsequently, many theories started to arose and time horizon began to play an important role in the private equity industry. More recently, critics started to question whether private equity firms focus on adding value and take a long-run perspective than their public peers, suggesting practices such as special dividends and "quick flips". Hence, private equity groups were able to extract fees and raise new funds more quickly (Lerner et al., 2011).

The asset flipping (or quick flip) concept concerns the reselling of assets within short periods of time, after buying them. In this particular case, concerns the sale of businesses by private equity firms within less than two years after they had invested. The lack of information regarding this topic presents itself as a research opportunity to study, in more detail, the behavior of quick flips. Only a few authors studied this type of strategy and its results were basically related with exit routes and the experience of underlying private equity funds. This approach will be distinct, with the particular assessment of the operational performance of companies. Companies may experience many financial changes during this process and it is also relevant to analyze the final outcomes of those transactions in terms of operational performance.

This dissertation looks, in more detail, to quick flips at investor and operating performance level. Initially, the ambition is to build a comprehensive sample and realize if quick flips have increased in frequency over the years and which exit routes are more adopted when performing this type of strategy. Moreover, the objective is to find out private equity investors' role in this type of transactions and possible explanations for early exits, as well as understand if quick flips have the capacity of generate significant

profits, like long-term buyout strategies. In order to do so, the first step is to perform a Wilcoxon rank sum (Mann Whitney) test, at pre- and post- buyout level, to conclude if investors search for specific company requirements before the acquisition and if there are considerable changes in size, debt level or in terms of profitability and efficiency measures along the process. Secondly, a logit regression model is built to understand which variables are more likely to increase the probability of quick flips.

The work proceeds as follows: Section 2 presents the existent literature regarding the evolution of private equity firms, operational performance, holding periods and asset flipping; section 3 concerns data specifications and characteristics, as well as the description of the methodology adopted; section 4 and 5 present evidence of the work performed and, finally, section 6 and 7 exhibit the main conclusions and refer the shortcomings encountered across this dissertation, respectively.

2   Literature Review

2.1   The evolution of the private equity market

The concept of Private Equity registered an enormous evolution over the past three decades. In fact, professional managed investments in Private Equity can be dated to 1946 and the constitution of the American Research and Development Corporation (ARD), a publicly traded, closed-end investment company that grew out of the mainly concern regarding incommensurate rates to constitute new businesses and the absence of long-term financing for new ventures, between 1930s and the early 1940s (Liles, 1977). The importance of a private section solution to fund new enterprises and the idea of new management expertise to conduct new businesses was starting to gain form even if, at that time, it was completely unattainable. In the beginning of the 1950s, some private venture capital companies were created and many private equity investments were funded on a deal-by-deal basis by syndicates of wealthy individuals, corporations, and institutional investors organized by investment bankers (Investment Bankers Association of America, 1955). However, only in the end of 1960s, private equity professionals had started to realize the true benefits of the valuable experience gained over the past several years, in one hand because of the lack of real institutional infrastructure for financing new ventures, which resulted in a strong impression that private equity capital was in short supply throughout the 1950s and, on the other hand, due to the emergence of a hot new-issues market in 1968-69 (Fenn et al, 1997).

Although there has been a significant growth of the private equity and venture capital deals over the 1970s, the explosive growth happened between the 1980s and the 1990s. The significant progression of limited partnerships in combination with the several accessible regulatory and tax changes has directed the money to the private equity market and venture capital partnerships (Fenn et al, 1997). This vigorous development of private equity markets and the emergence of the leverage buyout concept as an important phenomenon in the financial industry patented the 1980s decade as the first wave of private equity firm transactions. At that time, many were the opinions regarding this subject, generating different perspectives about the optimal periods to conduct a leverage buyout strategy. In 1981, KKR & Co. completed six leverage buyout transactions, encouraging other investors to conduct similar buyout transactions using, generally, high

amounts of debt, in order to get majority control of existing mature firms. During the 1980s, the US buyout industry was constituted only by a few number of organizations and deals were identified through personal contacts with executives in key industries, as well as several intermediaries. The analysis of the proposed deal took large amounts of time and the structure of the transaction involved high level of debt, often as much as 85% or 90% of the purchase price (Cao and Lerner, 2009). A tiny variation in the value of the firm, even if due to inflation, operating improvements or overall growth of the stock market would lead to generous profits for equity-holders (Kaplan, 1989; Kaplan and Stein, 1993).

Nevertheless, the adoption of incentive mechanisms as suggested by agency theory (Jensen and Meckling, 1976) to limit divergences between managers and shareholders together with the introduction of high leverage amounts consolidated the idea of aligning the interests of portfolio firm managers to reduce agency costs and, consequently, improve the performance of buyout firms. Moreover, high leverage resulted in capital structure changes and "tightened governance arrangements so as to reduce managerial discretion" (Wright et al., 1994) and also increased the return on equity of private equity firms by deducting interest from profits before taxes (Kaplan, 1991; Lerner, 2011; Wright et al., 2009). In fact, with the emergence of agency costs, firms also established new policies such as stock options to monitor managers and reduce overspending of free cash flow. Similarly, such amounts of debt seemed like a short path to bankruptcy or financial restructuring, but the benefits it would bring would certainly motivate managers and their organizations to be efficient and were more likely to inspire investors to risk their funds more quickly. Jensen (1986) provided a clear view about this theory, remembering that high debt levels reduce agency costs, since the obligation to pay creditors forced managers to highlight firm performance and create value for shareholders.

The early 1990s was especially pronounced by the virtually exodus of the leverage buyouts of public companies, the so called public-to-private transactions, due to significant events as the crash of the junk bond market and the default and bankruptcy of a large part of high-profile leverage buyouts (Kaplan and Strömberg, 2009). The systematic use of high leverage has innumerous advantages but also implies high risks. Throughout this decade, large proportions of debt were issued in the form of junior or unsecured loans financed by either high-yield bonds or "mezzanine debt" (Yago, 1991).

The constant issuing of junk bond stimulated a sequence of leverage buyouts, originated high risk deals and, ultimately, dictated the end of the first wave of buyout transactions.

The leverage buyout market was quiet by sometime during the 1990s, gradually recovering from the crisis of the junk bond, which hardly damaged the main participants of this market. Nonetheless, the leverage buyout market was never dead, to the extent that, between the late 1990s and early 2000s, leverage buyout firms continued to purchase private companies and divisions, experiencing an upward cycle, returning in the mid-2000s with such impact, as a second wave of leveraged buyout transactions worldwide was formed (Kaplan and Strömberg, 2009). Such trend towards private ownership of corporations led, in 2006 and 2007, to the second wave of private equity transactions, which recorded a significant amount of capital committed to private equity, both in nominal terms and as a fraction of the overall stock market (Kaplan and Strömberg, 2009), questioning again the true value created by buyouts and the methods used to achieve it (Guo et al., 2011). In fact, in the US, the value of public companies taken private in 2006 was remarkable, in a year which the New York Stock Exchange saw a net withdrawal of $38.8 billion in listed capital as a result of public firms going private, and the NASDAQ market experienced a net withdrawal of $11 billion (Schneider and Valenti, 2010). However, the development of this market registered a downfall, as worldwide transactions plummeted from $325 billion in the first seven months of 2007 to $56 billion for the last five months (Thompson Financial Services, 2007).

2.2 Operating performance

Operating performance studies have been conducted since the late 1980s. One of the most throughout studies was undertaken by Kaplan (1989). Kaplan (1989) studied the effects of MBOs on operating performance and value. The sample of study analyzed consists in 76 management buyouts completed between 1980 and 1986. This analysis is performed using post-buyout information, in addition to the pre-buyout information accounted in previous studies. The results show that companies experience increases in operating income (before depreciation) and net cash flow, as well as reductions in capital expenditures. Operating income, measured net of industry changes, is essentially unchanged in the first two post-buyout years and 24% higher in the third year. Value

creation sources were also analyzed, suggesting that the operating changes are due to improved incentives, rather than layoffs or managerial exploitation of shareholders.

Using a different methodology, Smith (1990) achieved the same conclusions observed in Kaplan's (1989). Companies experienced increases in operating returns, as well as decreases in CAPEX. Similarly, improved management incentives are pointed out as the explanation and other hypotheses such as layoffs and cutbacks in discretionary expenses are rejected. In the same line of previous authors, Opler (1992) studied the consequences of LBOs on operating performance, documenting increases in operating performance and decreases in CAPEX, taxes and R&D expenses after LBOs are completed, as Kaplan (1989) and Smith (1990).

In a different approach, Lichtenberg and Siegel (1990) analyzed the effects of LBOs on total factor productivity and related variables, recognizing a strong positive effect on the total productivity factor for LBOs (particularly MBOs) in the first three post-buyout years.

Accounting for reverse LBOs, Muscarella and Vetsuypens (1990) realized significant improvements in profitability, mainly due to costs' reduction. Despite the high increases in leverage, companies started to carry out restructuring activities, such as divestments and reorganization of production facilities, in favor of optimizing it's firm's asset mix.

Degeorge and Zeckhauser (1993) find that the reverse LBOs which occurred between 1983 and 1987, substantially outperformed comparison firms before the IPO. Similarly, Jain and Kini (1994) arrived to the same conclusions by studying the post-issue operating performance of IPOs firms, particularly by examining the changes in the operating performance of these firms after they become public listed firms, in a sample of 682 firms from the period of 1976 to 1988. They realized that IPO firms exhibit a decline in their post-IPO operating performance relative to the year prior to listing. In addition, they found positive relationship between post-IPO operating performance and equity retention. Contrarily, no relation between post-IPO operating performance and initial underpricing level was found. The conclusions observed were also achieved by Holthausen and Larcker (1996), using a sample of 90 reverse LBOs that occurred between 1983 and 1988. Thus, operating performance of reverse LBOs is significantly superior to the industry before the IPO, recognizing a strong relationship between performance and

the percentage of equity owned by the operating management and other insiders. Equivalently, declines in operating performances after the IPO are associated with the declines of managerial equity ownership, resulting in increases at working capital and CAPEX levels.

More recently, researchers aimed to study the most recent wave of leveraged buyouts. Most previous studies were based on buyout transactions from the 1980s and, given the rise of the private equity industry, changes in the characteristics of firms targeted for buyouts and the structure of the transactions themselves were likely to change the value creation process of buyouts as well. Guo et al. (2011) examined how LBOs created value, in a sample of 192 LBOs completed between 1990 and 2006. Conclusions display that LBOs still create value, however the operating gains achieved do not approach the ones documented for deals from the 1980s buyout wave, appearing to be much smaller. For deals with post-buyout data available, median market- and risk-adjusted returns to pre- (post-) buyout capital invested are 72.5% (40.9%). Lerner et al. (2009) show an increase in patent quality after buyout and no deterioration of the level of R&D. They find no evidence that LBOs sacrifice long-term investments, meaning that buyouts are not renounced in the long-term, in order to boost short-term performance.

Finally, Davis et al. (2009) analyzed the relation between job losses and operating performance gains. They documented increases in productivity, with gains arising mainly from a directed reallocation of jobs within target firms.

In the 2000s, academic research has focused more on European buyout activity, especially UK. Still, obtained conclusions point to the same factors associated with LBOs in the US. Wright et al. (1996) examined, for the first time, the financial performance and productivity of a large sample of buyouts and non-buyouts. In a sample of 251 UK buyouts for up to six years after the buyout, they realized that no significant differences in performance were identified in the early years. However, three to five years after the transaction occurred, buyout firms evidenced a slightly better performance, comparing with non-buyout firms, both in terms of return on total assets and profit to employee measures. The fact that buyouts commonly involve underperforming firms was seen as the reason for the slow growth of performance, as it may take more time to burst and, subsequently, realize significant returns compared to their counterparts.

Murray et al. (2006) evaluates the operating performance of buyout firms that exit through IPOs, using a sample of 178 UK companies over the period 1980-1998. The authors found that UK buyouts experienced a significant operating performance improvement before the IPOs, followed by a steadily decline after going public, as Jain and Kini (1994) previously documented. Improvements come from a better use of the assets to generate sales, rather than higher margins. In addition, although they found no significant difference in pre-IPO or post-IPO operating performance between PE-backed and non-PE-backed buyouts, prestigious and non-prestigious PE firms seem to play an influential role among several deals.

Cressy et al. (2007), in a sample of 122 UK buyouts over the period 1995-2000, examined whether PE-backed buyouts have higher post-buyout operating profitability than comparable companies and whether relative investment specialization provides private equity firms with a competitive advantage over its peers. They concluded that operating profits of PE-backed companies are greater than those of comparable non-buyout companies by 4.5%, with industry specialization of PE firms adding 8.5% to this profitability advantage. Those results suggest that PE-backed companies play an important role in post-buyout profitability, to the extent that they provide new skills in investment selection and better financial engineering techniques. Ultimately, these findings are consistent with the ones achieved by Murray et al. (2006).

More recently, using a hand collected data set of 122 UK buyouts from 1998 to 2004, Weir et al. (2008) studied the impact effects of public-to-private (PTPs) transactions and found that performance deteriorates relative to the pre-buyout situation, but this change in performance is not worse than the change in firms that remained public. There is even some evidence of performance improvements when related with firms that remained public. Similarly, PE-backed deals perform better than the industry and not worse than non-PE-backed deals. However, despite there is no evidence suggesting non-PE-backed perform better than the industry average, these arguments are consistent with the findings of Murray et al. (2006) and Cressy et al. (2007).

Finally, Chung (2011) investigated the effects of leveraged buyouts on privately held targets in UK. He asserted that, unlike public transactions, the economic forces driving private-to-private leveraged buyouts are more likely to be somewhat different from those driving public-to-private buyouts. Such differences arise by improving a

target's value by mitigating inefficiencies coming from various investment constraints facing small private firms. Nonetheless, consistent with Kaplan (1988) and Smith (1990) findings, he realized that public firms reduce firm size and investment after buyouts. As for operating performance, he found that private targets with private equity sponsors experience an increase in operating performance after the buyout, with considerable growth of sales in respect to EBITDA, resulting in growth but not improved margins.

At a plant level, Harris et al. (2005) assessed the total factor productivity of 35,752 manufacturing companies before and after MBOs, concluding that MBO plants are less productive than comparable plants before the transfer of ownership. They experience a substantial increase in productivity after the buyout, mainly due to the reduction of labor intensity in production, via outsourcing of intermediate goods and materials, implying that MBOs reduce agency costs and enhance economic efficiency.

As UK, Western Europe has also been a subject of study regarding the operating profitability of private equity firms. Desbrières and Schatt (2002) argued that, unlike findings concerning LBOs in the US and the UK, the performance of French companies' falls after the operation is completed, with deterioration being more significant in former family businesses than in former subsidiaries of groups. However, Bergström et al. (2007) findings, in Sweden, also point to the experience of PE firms to add value, but the authors didn't find evidence suggesting that the value created by the company is transferred from its employees. More recently, Acharya et al. (2013), using deal-level data from transactions initiated by large private equity houses, found that the abnormal performance of deals is positive, on average, after controlling for leverage and sector returns. In fact, higher performance is strongly related with improvements in sales and operating margin during the private phase. In addition, empirical evidence suggested the same results as in UK, with more experienced PE firms adding a higher contribution to the value creation process of portfolio companies, on average. Finally, regarding Continental Europe and UK, Achleitner et al. (2010) analyzed value creation drivers in buyouts using a data set of 206 realized transactions, and concluded that one third of the private equity sponsors' returns can be attributed to the use of leverage, whereas two thirds are due to operational and market effects, with the level of leverage strongly related with the buyout size.

2.3   Holding periods

As buyout deals increased, Jensen (1989) argued that the leverage buyout organizational firm imposes strong investor monitoring and managerial discipline through a combination of ownership concentration and substantial leverage. According to Jensen, this benefits would eventually allow the emergence of leveraged buyouts as the dominant corporate organizational firm, remaining above the common corporation composed by dispersed shareholders, with low levels of leverage, and weak corporate governance. As Jensen (1989), Kaplan (1989) and Schipper and Smith (1988) also supported this view, since they believed that tax deductibility of interest in buyout debt is a potential source of value in management buyouts that depends on how long the high LBO debt load is maintained. However, Jensen's predictions were not fully consensual, since Rappaport (1990) demonstrated a different view, arguing that leveraged buyouts were a short-term strategy, more similar to a "shock therapy", which allowed inefficient, badly performing firms with inferior corporate governance to go through an extreme and relatively quick period of corporate and governance restructuring, in order to return to public markets in a few years.

However, no empirical evidence was provided and, despite being two important contributes, both theories were only based in theoretical arguments. Kaplan (1991) presented some empirical research regarding this topic, in a sample of 183 large LBOs completed between 1979 and 1986. He found that the majority of LBOs are neither short-lived nor permanent, pointing to 6.82 years as the median time for a LBO to remain private. Moreover, he documented that the percentage of LBOs returning to public increases overtime. Consistent with this findings, Wright et al. (1995) for the UK and Wright et al. (1993) for France, Sweden and Holland suggested that, although some buy-outs may float on a stock market or be sold within a very short period of time, the majority may remain as buy-outs for well in excess of seven years, with smaller buy-outs being significantly more likely than large ones to remain as buy-outs for long periods.

Still, the private equity market experienced a significant development since 1980s, with the growth of the buyout market, increased benefits of private ownership, larger number of secondary buyouts and the global expansion of the private equity market. Given this new developments, Strömberg (2007) studied the global LBO activity, exit behavior and holding periods, resorting to a data set of more than 21,000 LBO

transactions between 1970 and 2007. He concluded that the median firm stays in LBO ownership for approximately 9 years, consistent with previous results achieved by Jensen (1989). Such findings seem more trustworthy, since the sample is wider than the one used in Kaplan (1991).

2.4 Asset flipping

The purpose of this dissertation is study asset flipping in private equity markets. Private equity firms are in business to generate returns for their investors. Since 2001, private equity has been particularly highlighted by the media and criticism from trade unions, among several others. One of the motivations is that they believe private equity firms buy companies for further disposal of assets, in order to generate gains (asset stripping) and profiting from the reselling of those assets within short periods of time (asset flipping) (Wright et al., 2009). In fact, according with those critics, abnormal returns will only be achieved by value appropriation from other stakeholders, and not by the common method of value creation inside the company itself. Moreover, as financial economy deteriorates across the world, investors were led to a more short-term oriented view in the private equity scenario, where quick flips are performed in order to lose less amounts of money, instead of taking a chance by keeping their investments to fully realize their potential value (Strömberg, 2007). The deep suspicion is whether buyout sponsors add any value in quick flips and what incentives buyout sponsors have to quick-flip certain firms.

Strömberg (2007) provided empirical evidence about this subject, concluding that this cases turn to be rare, with only 2.9% of investments with private equity sponsors being exited within 12 months. An increase to 12% is verified for deals exited within 24 months of the LBO acquisition date. In addition, results suggest that quick flips are more common if undertaken by more experienced private equity funds (although with small magnitudes) and early exits are more likely for larger transactions, but controlling for size, it is not expected that they go private. Overall, evidence doesn't account for increases in early exits over the years and no significant tendency was observed across regions.

Lopez-de-Silanes and Phalippou (2008), using a dataset containing the performance of 4,848 investments of 151 private equity firms between 1973 and 2002,

presented new results on the cross-section of private equity investments. Similarly to Strömberg (2007), they found that quick flips represent 14% of all the investments and that there is no clear time trend (held less than 2 years). Likewise, quick flips display no increase in frequency over time. However, strong evidence of cyclicality was noted, with good times resulting in more quick flips, consistent with previous testimonies. In contrast, their findings exhibit large differences across countries in terms of fraction of bust investments for quick flips, varying from a high 25% in the Netherlands to a low 9% in Italy.

Although quick flips are a much debated topic, researchers tend to analyze it in a secondary basis, mainly when leverage buyouts go public for the second time[1]. Cao (2008) analyzed buyout sponsors' incentive and corporate control in reverse leveraged buyouts (RLBOs). He concluded that buyout sponsors with weaker incentives are more likely to quick flip a deal by relating such quick flipping decision to exogenous or pre-determined variables as the relative size of a LBO firm to its buyout sponsors' total historical capital and IPO market conditions. Moreover, he also found that firms with smaller relative size to buyout sponsors are more likely to be quick flipped and quick flips are more likely to have poor operating performance and subsequently go bankrupt in the long-term. Later on, this conclusions were observed in Cao and Lerner (2009) investigation regarding the performance of RLBOs.

More recently, Cao (2011) addressed quick flip issues, alongside with the impact of buyout sponsors' IPO timing on the LBO restructuring process and subsequent exit strategies. Using a comprehensive sample of RLBOs between 1980 and 2006, he concluded that the performance timing and declines in performance are common in quick flips that were typical in the early sample period. In addition, he found that buyout sponsor's LBO restructuring duration is affected by IPO timing, with favorable IPO conditions or high industry valuations resulting in a decrease of time to privately restrict LBOs. As a consequence, such LBOs experience worse post IPO operating performance and greater probability of bankruptcy, compared to other RLBOs, as Cao (2008) and Cao and Lerner (2009) predicted.

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[1] In Cao (2008) and Cao (2011), the author assumes quick flips as investments exited in less than one year from LBO to IPO. However, the empirical findings remain unchanged if the durations of less than one and a half years or two years are considered.

3 Sample and Methodology

3.1 Sample construction

Private equity is a worldwide concept, studied by academic researchers across the world. However, one of the main issues of private equity research is the availability of data. In order to ensure the maximum data possible, at least at deal and private equity level, more than one database was used[2].

This sample is based on Jenkinson and Sousa (2015). The sample focuses in European portfolio companies that exited through a secondary buy-out, initial public offering or a trade sale, between January 2000 and December 2010. Due to accounting information purposes, this dissertation's sample limits the entry year to January 2003. Overall, the sample records data from acquisitions made between January 2003 and December 2010.

In order to identify asset flipping, which is the main concern in this dissertation, it was defined that asset flipping companies should have a maximum deal entry and exit interval of 720 days, equivalent to two years. The final sample covers 338 European portfolio companies, with 76 of them being "quick flips".

Finally, accounting information for all companies at the year prior to the private equity investment (-1), one year after the entrance (+1) and one year prior to the exit (N-1) was collected. To collect this data, the Amadeus database, a comprehensive database of 14 million companies across Europe, covering both public and private companies, managed by Bureau Van Dijk, was used. At this point, no restrictions were taken into account, in order to get all information possible. However, some difficulties were found, since quick flips last the maximum of two years (and sometimes even less), which complicated the calculations for the first year after the buyout, since companies can be quickly flipped in one year, making it impossible to collect unbiased data for that period. In the end, the outcome of this dissertation will only analyze the year prior to the private equity investment (-1) and the year before the exit (N-1).

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[2] Capital IQ and Private Equity Insight were the databases used to identify private equity exits. Thomas Venture Expert (TVE) was used to gather detailed transaction data. A more detailed explanation of this process is available in Jenkinson and Sousa (2015).

3.2 Measurement of operating performance

The impact of the buyout in portfolio companies is assessed by the book value of total assets and sales, as proxies for the company's size, EBIT as a cash-flow measure and finally, current and non-current liabilities as proxies of total debt of a company.

In order to examine pre- and post-buyout operating performance, three financial ratios were used. The profitability and efficiency of a company is measured by EBIT margin (EBIT/ total sales) and asset turnover ratio (Total assets/ end-of-period total assets), respectively. The risk and indebtedness of a company is measured by the leverage ratio (Long term debt/ EBIT). EBIT Margin measures the company's operating profitability, providing a clean view of the company return to investors. Hence, investors should be able to understand the accurate costs of running a company.

Asset turnover ratio measures the firm's efficiency in asset utilization. Theoretically, as the ratio increases, companies will grow, implying that companies are generating more revenues per euro of asset. Practically, comparisons should be undertaken only with firms from the same industry, since it can widely vary across different sectors. This ratio has been extensively used in the past, revealing itself as an important contribute in assessing firms' operational performance (Murray et al., 2006; Weir et al., 2008). Finally, the leverage ratio measures the level of indebtedness and, subsequently, the levels of risk of a company. Such ratios have also been extensively used in the past (Holthausen and Larker, 1996; Murray et al., 2006; Weir et al., 2008).

In addition, private equity investor variables that proxy for its characteristics are used to assess if such characteristics are, somehow, related with quick flip strategies. Therefore, the fund maturity, the private equity firm's experience at the entry stage, as proxy of experience of the private equity firm and the fund size were gathered.

3.3 Sample characteristics

Table 1 shows detailed information about the two types of strategies of 338 European companies, acquired between January 2003 and December 2010. Panel A sorts the sample by portfolio company nationality (according to the location of their headquarters) and according to whether their type of private equity strategy was a quick-flip or not. As observed, 23 European countries are represented in this sample, with the

UK accounting for more than one-quarter of the portfolio companies, which clearly shows the evolution of the buyout market in this country, comparing with the remaining ones[3]. Since quick flips remain an unusual strategy, only 76 transaction were observed, with non-quick flips accounting for more than 75% of the general sample. Panel B splits the data according to the industrial classification and type of strategy of portfolio companies. General manufacturing industry dominates this sample, both in quick flips and non-quick flips, alongside with the Services industry. The remaining industries also account for many transactions, however in much smaller scale than the previous ones.

Table 1: Sample Description

Table 1 presents detail about 338 acquired European companies, which occurred between January 2003 and December 2010. Panel A sorts the sample by portfolio company nationality and Panel B categorizes companies according to its industry classification. Both sub-samples are segregated by type of strategy.

Panel A: Nationality of portfolio companies and type of strategy

Country	Type of strategy		
	Quick Flip	Non-Quick Flip	Total
United Kingdom	35	90	125
France	11	45	56
Italy	6	25	31
Germany	7	16	23
Sweden	4	17	21
Spain	3	14	17
Norway	0	17	17
Denmark	0	9	9
Netherlands	2	6	8
Belgium	2	5	7
Finland	1	4	5
Czech Republic	1	2	3
Poland	0	3	3
Other (10)	4	9	13
Total	**76**	**262**	**338**

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[3] Murray et al. (2006) documented the importance of buyouts in UK's overall merger and acquisition market and how they became one of the most important driving forces in corporate restructuring.

Panel B: Industrial classification of portfolio companies

Industry	Type of strategy		
	Quick Flip	Non-Quick Flip	Total
Agriculture, Forestry, and Fishing	1	0	1
Mining	1	6	7
Construction	1	3	4
Manufacturing	26	101	127
Transportation and Communications	6	30	36
Wholesale Trade	3	14	17
Retail Trade	10	17	27
Finance, Insurance and Real Estate	3	21	24
Services	24	70	94
Public Administration	1	0	1
Total	**76**	**262**	**338**

Table 2 presents the exit route of each transaction, by type of strategy. Secondary buy-outs, alongside with trade sales nearly represent the entire sample, with IPOs only accounting for a total of 32 transactions. However, in terms of type of strategy, trade sales represent more than one-half of the quick flip subsample (53%), which apparently indicates a tendency of a third party involvement, since trade sales, as well as secondary buy-outs, involve a buyer firm or financial sponsor, respectively.

Table 2: Sample description: Analysis of exit routes by type of strategy

Table 2 gives detail about 338 acquired European companies, which occurred between January 2003 and December 2010, regarding the exit route adopted and according to whether they are quick flips or non-quick flips.

Exit Strategy	Type of strategy				
	Quick Flip	%	Non-Quick Flip	%	Total
Secondary buy-out	26	34%	130	50%	156
Trade Sale	40	53%	110	42%	150
Initial Public Offering	10	13%	22	8%	32
Total	**76**	**100%**	**262**	**100%**	**338**

Table 3 provides statistics concerning private equity firms. It is important to note that if more than one private equity firm was involved and none is the leader, all private equity firms were considered. 3i Group PLC, Apax Partners Worldwide and EQT Partners AB represent the top 3 ranking that account for a total of 207 private equity firms. It is also possible to conclude that important and experienced private equity firms often conduct short-term deals.

Table 3: Sample description: Type of strategy by selling private equity firm

Table 3 reports, by type of strategy, the selling private equity firm of 338 acquired European companies, which occurred between January 2003 and December 2010. When more than one private equity firm is involved in the transaction, all of them are considered.
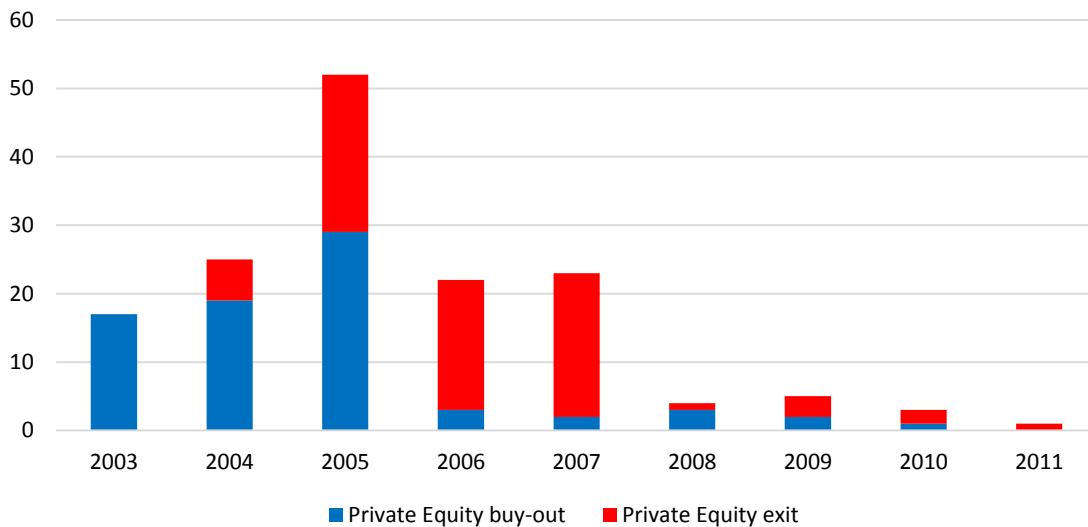
Private Equity firm	Type of strategy		
	Quick Flip	Non-Quick Flip	Total
3i Group PLC	6	9	15
Altor Equity Partners	0	7	7
EQT Partners AB	1	7	8
Apax Partners Worldwide	4	6	10
Graphite Capital Management LLP	0	5	5
Barclays Private Equity, Ltd.	4	3	7
Bridgepoint Capital	2	4	6
Herkules Capital AS	0	5	5
Permira Advisers Limited	1	5	6
The Carlyle Group	2	4	6
Other (197)	59	217	276
Total	**79**	**272**	**351**

Finally, Figure 1 compares the acquisition and exit years of the 76 quick flips in this sample. From 2003 to 2005, a slightly increase of this transactions is observed. However, since 2005, a significant decrease of quick flips is detected, remaining constant until 2010. As for exits, 2005 to 2007 exhibit the highest number of exits in this sample, which is understandable given that quick flips increased in the first three years of the sample. The behaviour of quick flips along the times is consistent with Strömberg (2007)

and Lopez-de-Silanes and Phalippou (2008), since they also found that the frequency of quick flips has decreased over time. In addition, they concluded that the average holding period was between 4 to 6 years (with 12% of quick flips in a sample of more than 21,000 LBOs) and 4 years (with 14% of quick flips in a sample of 4,848 investments of 151 private equity), respectively. This dissertation's paper sample exhibits an average holding period of almost 3.5 years, with 22% of quick flips. However, the total number of transactions is much less than the previous two, which causes some distortions in the overall conclusions.

Figure 1: Yearly distribution of quick flips by acquisition and exit

Figure 1 gives detail about the yearly distribution of 76 quick flips, by the time of acquisition and exit.

3.4 Methodology description

In order to analyze the operating performance of asset flipping and the role the private equity investors play in this type of strategies, a univariate and a multivariate analysis will be used.

In the first approach, pre- and post- buyout operating performance of asset flipping is analyzed by measuring, individually, each variable, before and after the buyout, in quick flip or non-quick flip companies. Then, the change between the year before the acquisition and the year before the exit is analyzed. A Wilcoxon rank sum (Mann-Whitney) test is performed to test whether the operating performance or investor

characteristics of quick flips are significantly different from the standard buyout private equity investments. As in Kaplan (1989), the results achieved are for medians, rather than for means, to control for outliers that dominate the means in some sub-samples analyzed[4]. Therefore, the hypothesis is formulated:

H_0 = Quick flip and non-quick flip populations' are equal

H_1 = Quick flip and non-quick flip populations' are not equal

Industry adjustment effects are not accounted in this analysis, since necessary benchmark data was not possible to gather. Consequently, each variable is analyzed individually, in order to understand its role and influence in both sub-samples. Nevertheless, the lack of industry data is minimized in the multivariate analysis due to the inclusion of industry dummy variables that control for industry fixed effects.

In the second approach, a logit regression model is developed. The objective is to understand, both at company and investor levels, which factors are more likely to influence quick flips, rather than maintain investments and implement a well-developed strategy, as most of private equity firms do. Hence, the model incorporates two groups of factors, which goes by the following:

$$y_i = \mathbf{x'}_i \boldsymbol{\beta}_i + \mathbf{w'}_i \boldsymbol{\lambda}_i + u_i \qquad (1)$$

Firstly, the analysis focuses on the fiscal year before the acquisition (-1) and, secondly, on the change between the fiscal year before the acquisition and the fiscal year before the exit (-1 to N-1) of portfolio companies. The fiscal year of the acquisition (year 0) is not considered, as it includes both pre- and post-buyout operations, making it difficult to differentiate between pre- and post- buyout performance and, consequently, increasing the bias' probability of the analysis (Kaplan, 1989).

As shown above, (x) represents variables that control for private equity characteristics and (w) represents variables that control for portfolio company specific characteristics. (y_i) is a dummy variable that assumes the value of 1 when the company is a quick flip and 0 when is not. The x variables include the fund maturity, representing

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[4] For instance, it can be seen in table 5 that EBIT Margin has a mean of -121% because one observation has only €10 thousand of sales and a negative EBIT of €994 thousand.

the number of months since the vintage year[5], at the entry point, and the "experience" of the private equity firm, which represents its age at the acquisition year.

The w variables include, for the -1 analysis, total assets, asset turnover ratio, EBIT margin and a leverage ratio (long-term debt / EBIT), measured in the year before the acquisition and for the "-1 to N-1 analysis", the variables used are the change on total assets, total sales, asset turnover ratio, EBIT margin and leverage ratio (long-term debt / EBIT)[6].

As Strömberg (2007), both analyses include industry fixed effects, which are controlled resorting to dummy variables. In regards to industry fixed effects, all 338 companies were grouped based on one-letter Standard Industrial Classification (SIC) codes, totaling 10 distinct industries.

Inherently, the existence of outliers made some distributions relatively skewed, which could lead to a distortion of statistical tests. In order to minimize that distortion, most of the variables are measured in natural logarithms or are winsorized[7].

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[5] Since the exact date of the fund close is unknown, the month July, day 1 was assumed for all funds.
[6] All variables are explained above in chapter 3.2. Detailed formulation of all variables is disclosed in the appendix.
[7] Logs were used for Total Assets only. Winsorization (at the 5% and 95% points) was used only for variables expressed in percentage points, such as Sales growth, Asset Turnover ratio, EBIT margin and Long-term Debt / EBIT.

4 Summary statistics

Table 4 reports summary information for the 338 deals, in the year before the acquisition. On average, private equity funds enter their investments after around 6.7 years (80.6 months), which results in a median of 5.5 years (66.7 months). The average (median) fund size is €956.6 million (€390.5 million), while the private equity firms have, at the time of the acquisition, 15.9 years (15 years) of experience.

As for the portfolio companies, in the year before the acquisition, they exhibited an average (median) book value of assets of €132.6 million (€37.9 million), sales of €112 million (€46.6 million), EBIT of €5.4 million (€3.04 million), short-term debt of €43.1 million (€14.3 million) and long-term debt of €33.5 million (€3.0 million).

Table 4: Summary statistics for the year prior to the acquisition

Table 4 reports the summary statistics for private equity and portfolio companies at the time of the acquisition and one year before the acquisition, respectively. Fund maturity is in months and the private equity firm's age at the entry point in years. The remaining values are expressed in millions of euros.

Variables	Mean	Median	Std. Devitation	N
Panel A: PE Investor				
Fund maturity (months)	80.6	66.7	80.1	337
Fund size (€m)	€ 956.6	€ 390.5	€ 1,319.3	337
PE age at entry (years)	15.9	15	12.2	338
Panel B: Portfolio Company				
Total assets	€ 132.6	€ 37.9	€ 466.2	155
Sales	€ 112.0	€ 46.6	€ 209.8	85
EBIT	€ 5.4	€ 3.0	€ 18.7	156
EBIT margin	-121%	8.05%	1086%	84
Asset turnover ratio	1.23	1.10	0.95	85
Current liabilities	€ 43.1	€ 14.3	€ 111.2	155
Non-current liabilities	€ 33.5	€ 3.0	€ 164.8	155
Long-term Debt / EBIT	-4.42	0.16	182.70	154

Table 5 Panel A reports the results regarding private equity characteristics. The average (median) fund maturity, at the point of the entry, is 73.9 months (61.4 month) for non-quick flips and 95.1 months (88.8 month) for quick flips[8]. The difference regarding the fund maturity between quick flips and non-quick flips is statistically significant at the 1% level. This result suggest that mature funds are more likely to exit their investments less than two years after they bought it, as the end of the fund's life is approaching and they invest in this type of deals, in order to achieve quick returns.

In addition, fund size registered an average (median) of €983.2 million (€399.9 million) for non-quick flips and €865.4 million (€363.9 million) for quick flips. Private equity firms' age at the point of the entry recorded an average (median) of 15.7 years (15 years) for non-quick flips and 16.25 years (16 years) for quick-flips. However, these differences between quick flips and non-quick flips are not statistically significant. Contrary to the findings of Strömberg (2007), which found that quick flips are more likely to be performed by more experienced funds, our results highlight the maturity of the fund instead of the experience of the firm.

Table 5 Panel B shows the results for specific characteristics of portfolio companies, in the year before the acquisition. The results suggest that quick flips, in the year before the buyout, tend to have a slightly (median) smaller amount of assets (€37.9 million), higher amount of sales (€60.6 million) and smaller EBIT (€2.2 million) than non-quick flips. In addition, evidence advances that quick flips are more likely to be less profitable but more efficient than non-quick flips, before the acquisition. However, all this differences are not statistical significant, which suggest that companies are not different before the transaction.

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[8] In this test, three funds were removed from the sample as they were considered trust funds and, therefore, don't have an associated limited life cycle.

Table 5: Wilcoxon rank-sum test one year before the acquisition

Table 5 shows Wilcoxon rank-sum (Mann-Whitney) test results between quick flip and non-quick flip sub-samples. Panel A concerns for private equity characteristics at the year of the acquisition and panel B exhibits portfolio company data one year before the acquisition. All values in millions of euros. *, **, *** indicate that the two sub-samples are significantly different at the 10%, 5% and 1% level, respectively.

Variables	Non-Quick Flip		Quick Flip		
	Mean	Median	Mean	Median	z
Panel A: PE Investor					
Fund maturity (months)	73.9	61.4	95.1	88.8	**-3.12 ***
Fund size ($mm)	€ 983.2	€ 399.9	€ 865.4	€ 363.9	0.72
PE age at entry (years)	15.7	15.0	16.2	16.0	-0.89
Panel B: Portfolio Company 1 year before buyout					
Total assets	€ 201.1	€ 38.6	€ 121.6	€ 37.9	0.59
Sales	€ 115.3	€ 45.8	€ 97.7	€ 60.6	-0.48
EBIT	€ 7.5	€ 3.3	€ 6.5	€ 2.2	1.29
EBIT margin	-147.44%	8.05%	-9.49%	6.54%	0.87
Asset turnover ratio	1.21	1.01	1.32	1.17	-0.50
Current liabilities	€ 52.3	€ 15.8	€ 45.8	€ 11.9	0.59
Non-current liabilities	€ 59.7	€ 3.0	€ 26.0	€ 3.2	-0.12
Long-term Debt / EBIT	-10.30	0.22	2.43	0.14	0.79

To analyze the performance of quick flips after the buyout, the change of each variable is measured between the year before the acquisition and the year before the exit. Since private equity funds may exit non-quick flips deals several years after the buyout, the average change (total change/ number of years) was used in this analysis.

Table 6 Panel A reports the results obtained and, although the difference between the change occurred in both quick flip and non-quick flip deals is not statistically significant, total assets, sales and EBIT increase more in non-quick flips. However, unlike in the year before the buyout, quick flips seem to improve their profitability but, at the same time, become less efficient (increase in the median EBIT margin of 2.23% and a decrease in asset turnover ratio of more than 25%, being the latter statistically significant at the 1% level). Therefore, the results suggest that sales don't increase as much as assets, which may suggest worst use of assets. However, results also suggest that quick flips,

although kept on private equity hands less than two years, managed to increase their operating performance, since almost every company variable show a positive growth.

At debt level, quick flips also show a significant increase in debt, both short and long term. This findings may explain why Cao (2011) documented that quick flips are more likely to go bankrupt.

Table 6 Panel B analyzes the year before the exit alone. As expected, non-quick flip company variables increase significantly more, compared to quick flip company variables, particularly in total assets, sales, EBIT and current liabilities. Nevertheless, quick flips appear to remain profitable, as the median EBIT margin achieves 8.25%, even when its asset turnover ratio decreases. Once again, evidence suggests that quick flips have the capacity and potential to increase (even more) their performance in the future.

As Cao (2011) explains, because LBO funds are often contracted to last for a limited life cycle, usually 10–12 years, buyout sponsors have increasing liquidity demands to exit from LBO companies as funds approach maturity. As seen before, more mature funds are more likely to perform quick flips. Likewise, since quick flips are profitable and the private equity investor exists to generate returns for its investors or limited partners, the faster they can do so, the better. The maturity of the fund appears to be a relevant aspect in quick flip investments.

Table 6: Wilcoxon rank-sum test: quick flips performance after the buyout

Table 6 shows Wilcoxon rank-sum (Mann-Whitney) test results between quick flip and non-quick flip sub-samples. Panel A concerns for the change of each portfolio company variable between the year before the acquisition and the year before the exit and panel B exhibits the same variables in the year before the acquisition alone. All values in millions of euros. *, **, *** indicate that the two sub-samples are significantly different at the 10%, 5% and 1% level, respectively.

Variables	Non-Quick Flip		Quick Flip		
	Mean	Median	Mean	Median	z
Panel A: Portfolio Company -1 to N-1 change (%)					
Total assets	0.695	0.451	1.903	0.274	0.882
Sales	44.864	0.252	0.656	0.251	0.476
EBIT	2.023	0.275	0.069	0.223	0.577
EBIT margin	0.456	0.015	0.068	0.022	0.7527
Asset turnover ratio	0.016	0.012	-0.379	-0.254	**2.58 *****
Current liabilities	1.018	0.339	0.391	0.268	0.536
Non-current liabilities	5.472	0.239	1,868.87	0.396	-1.37
Long-term Debt / EBIT	4.846	0.000	8.718	0.220	-1.254
Panel B: Portfolio Company 1 year before the exit					
Total assets	€ 273.8	€ 88.9	€ 160.0	€ 54.3	**2.26 ****
Sales	€ 181.5	€ 75.1	€ 119.9	€ 14.7	**2.86 *****
EBIT	€ 17.8	€ 6.3	€ 10.9	€ 3.5	**2.03 ****
EBIT margin	9.10%	9.01%	-4.65%	8.25%	0.833
Asset turnover ratio	1.03	0.88	1.00	0.77	0.902
Current liabilities	€ 82.5	€ 28.8	€ 78.7	€ 17.2	**2.38 ****
Non-current liabilities	€ 100.4	€ 16.0	€ 23.3	€ 8.4	1.021
Long-term Debt / EBIT	2.60	1.31	1.95	0.90	0.34

5　Regression model empirical results

Table 7 shows the estimation for the logistic model 1 in the year before the acquisition. The results show that as the fund nears its maturity, the probability of a quick flip increases. Although this result is statistically significant at the 5% level, this effect disappear once the portfolio company variables are included (Model 3). Contrarily to Strömberg (2007), the experience of the private equity firm doesn't have any impact in the likelihood of a quick-flip.

Model 2 and 3 show that the probability of a quick-flip transaction increases when the EBIT margin is lower in the year before the acquisition. In other words, investors that buy less profitable companies, one year before the acquisition, are more likely to flip their investments early in the future. In addition, results indicate that a higher long-term debt / EBIT ratio in the year before the acquisition largely increases the probability of a quick flip, suggesting that companies with higher amounts of debt are more likely to be quick flipped in the future. Contrary to the investors' characteristics, these companies' characteristics don't change with the inclusion of all explanatory variables.

Table 7: Regression results in the year before the acquisition

Table 7 gives detail regarding the logistic regression model for the year before the acquisition. The dependent variable is whether the transaction is a quick flip (1) or not (0). Standard errors are reported under the coefficients in parenthesis. *, **, *** indicate that the two sub-samples are significantly different at the 10%, 5% and 1% level, respectively. Total assets is measured in natural logarithms and + indicates a winsorized variable at 0.05 and 0.95 percentiles.

Variables	Model 1	Model 2	Model 3
	z	z	z
Panel A: Deal and PE investor			
Fund maturity (months)	**2.49 ****		0.33
	(0.002)		(0.006)
PE age at entry (years)	0.15		0.24
	(0.012)		(0.027)
Panel B: Portfolio Company			
ln (total assets)		-0.25	-0.29
		(0.220)	(0.225)
Asset turnover ratio $^+$		1.22	1.27
		(0.420)	(0.462)
EBIT margin $^+$		**-2.17 ****	**-2.17 ****
		(1.682)	(1.715)
Long-term Debt / EBIT $^+$		**1.84 ***	**1.87 ***
		(0.064)	(0.640)
Industry fixed effects	Included	Included	Included
Observations	335	71	71
Pseudo R ^{2}	3.60%	11.10%	11.32%

Table 8 reports the results for the model using as exogenous variables the change occurred between the year before the acquisition and the year before the exit. Total assets, because is used as proxy of size, is the only variable measured in the year before the exit.

Model 2 shows that a decrease in the company's efficiency in asset utilization increases significantly the likelihood of a quick flip transaction. In fact, the company's size, its profitability and debt levels seem to play no significant role during this period. Cao (2008) and Cao (2011) predicted that quick flips tend to perform poorly than non-quick flip firms after the buyout.

The inclusion of the private equity investor characteristics does not change this conclusion. However, results in table 7 and 8, especially in models 2 and 3 are highly

influenced by the significant decrease in the number of observations, which partially weakens the conclusions achieved.

Table 8: Regression results for variation between -1 and N-1 period

Table 8 gives detail regarding the logistic regression model for the variation between the year prior to the buyout and the year prior to the exit. The dependent variable is whether the transaction is quick flip (1) or not (0). Standard errors are reported under the coefficients in parenthesis. *, **, *** indicate that the two sub-samples are significantly different at the 10%, 5% and 1% level, respectively. Total assets is measured in natural logarithms and + indicates a winsorized variable at 0.05 and 0.95 percentiles.

Variables	Model 1	Model 2	Model 3
	z	z	z
Panel A: Deal and PE investor			
Fund maturity (months)	**2.49 **		0.25
	(0.002)		(0.008)
PE age at entry (years)	0.15		0.09
	(0.012)		(0.029)
Panel B: Portfolio Company			
ln (total assets)		-0.14	-0.19
		(0.332)	(0.343)
Sales growth +		0.001	-0.02
		(0.257)	(0.259)
Asset turnover ratio growth +		**-2.74 ***	**-2.76 ***
		(1.491)	(1.492)
EBIT margin growth +		0.09	0.06
		(2.08)	(1.634)
Long-term Debt / EBIT growth +		-1.17	-1.18
		(0.0871)	(0.087)
Industry fixed effects	Included	Included	Included
Observations	335	66	66
Pseudo R ^{2}	3.60%	23.51%	23.63%

6   Conclusions

The main aim of this dissertation was to understand the determinants of quick flips in order to realize what leads investors to exit their companies so early after they had acquired them.

The sample includes deals that occurred between January 2003 and December 2010 and, during this period, there is evidence of decrease in the frequency of quick flip transactions over time. Consistent with this fact, Strömberg (2007) and Lopez-de-Silanes and Phalippou (2008) also documented a decrease in this type of deals over the years. The exit routes involving a third party, such as trade sales and secondary buy-outs, are the most common exits for quick flips. The incidence of IPOs in this type of deals is residual.

The univariate analysis suggests that the fund maturity is a relevant factor, as the fund approaches its maturity, there is an increase in the likelihood that the deal will be exit in less than two years. Contrary to Strömberg (2007), that documented that more experienced private equity firms were more likely to flip investments, we don't find the experience of the private equity to play a significant role.

In addition, quick flips appear to be less efficient in managing its assets comparing with non-quick flips, registering a decrease of more than 25% in the asset turnover ratio. Nevertheless, results display a favorable change after the buyout in almost all remaining variables, reflecting an increase in their operating performance. Still, quick flips definitely underperform non-quick flip companies, as Cao (2008) and Cao (2011) predicted.

According to the multivariate analysis, the impact of the fund maturity on the likelihood of a quick-flip disappears when portfolio companies' characteristics are taking into account. Quick flips are more likely for companies that exhibit significantly smaller profitability levels before the acquisition and for companies with higher levels of long-term debt relative to EBIT. Thereby, the financial status of the company revealed to be more important than the maturity of the fund in charge of the transaction, which suggests that in a presence of a good business opportunity, private equity firms should be able to take advantage of the deal, regardless of its maturity and experience.

Results also show that quick flips are more likely for companies that exhibit a decrease in the asset turnover ratio along the years. Therefore, investors in possession of companies with low asset utilization efficiency after the buyout are more likely to exit their investments sooner.

In conclusion, the existing literature gives very little explanations regarding asset flipping and its operational performance, or the role of investors in this kind of transactions. This dissertation paper helps to reduce this gap.

7 Limitations

This dissertation presents some limitations in terms of accounting data since the database used, Amadeus, is somewhat inefficient for old data (more than ten years). These have a great impact in the number of observations used in the models.

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Appendix

Variables

Variable	Definition
Fund maturity (month)	[(day 1 / entry month / entry year) - (day 1 / month 7 / vintage year)] / 12
Fund size (€m)	Closed fund size
Private Equity age at entry (year)	Pe firm founding year - entry year
Total assets (€m)	Total assets value in the last accounting statement before at N year
Sales (€m)	Total sales value in the last profit and loss statement at N year
EBIT (€m)	Total EBIT value in the last profit and loss statement at N year
EBIT margin (%)	(annual equivalent EBIT) / Total sales x 100
Asset turnover ratio	(annual equivalent total sales value) / annual equivalent total assets value
Current liabilities (€m)	Total current liabilities value in the last profit and loss statement at N year
Non-current liabilities (€m)	Total non-current liabilities value in the last profit and loss statement at N year
Long-term debt / EBIT	(annual equivalent total non-current liabilities) / annual equivalent EBIT

All values are in millions of euros.