

The Principles of Private Equity: Ownership and Acquisitions

The Principles of Private Equity: Ownership and Acquisitions

De beginselen van private equity: eigendom en overnames

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Preface

The private equity market is still relatively young, but the market is growing and evolving, establishing a more prominent role in both the academic literature and practice. For academics, the ownership structure in private equity investments has a few interesting and unique features that offer outstanding opportunities to test and discuss economic theories, as exemplified by Jensen (1986) and his discussion of the agency theory. Since this seminal study, many scholars have researched the private equity market, however, as the market matures, new opportunities emerge. This dissertation follows the stream of literature that analyzes the relation between private equity ownership and operating performance, but it distinguishes itself by focusing on one of the key developments in the market. In the changing environment of private equity investments, acquisitions by private equity-owned portfolio companies may be the next key to success. Nowadays, one out of five PE-owned companies complete at least one acquisition, and trends in the market suggest that these acquisitions are becoming more prevalent. Yet, we know very little about how the private equity ownership structure affects acquisition activities. Furthermore, acquisitions in general are frequently associated with agency problems and can have major implications for the future of a company. The theoretical framework in this dissertation substantiates the anticipation value, which helps us to understand the interrelated dependencies between real options in serial acquisitions strategies. The first empirical study focuses on the synergetic value in so-called buy-and-build strategies that account for up to 50% of the buyout market. The second empirical study helps us better understand how the unique feature of private equity ownership may matter for acquisition activities and the real implications of these acquisitions.

Acknowledgements

To understand where you are, you need to know where you have been and where you are going. This dissertation marks the end of an exciting and eventful time and offers great new opportunities. It is the result of several years of work, however, the journey

towards this moment was embarked upon much longer ago, and I did not go through the process alone. I have always believed that the unique group of people you collect around you are a good approximation of yourself. I hope that I can live up to that expectation, since the group of family, friends, and many great colleagues who have supported me throughout this process have been of indefinite value. Therefore, I will remember this period also as one in which I was able to appropriate the value of the collective. Let me take a moment to thank my collective to which I am in great debt.

I gratefully thank my supervisors. We had many excellent discussions that stimulated me personally and that elevated our projects. I thank Vadym Volosovych for his guidance, encouragements, and opportunities to speak my mind. Vadym has provided invaluable support from the beginning of my academic path and I am very happy to have had him as my supervisor. The same is true for Han Smit. Han has been a supervisor, mentor, and a friend. He taught me many lessons, in class, research, and life, and showed me the way of an academic. For me, there were no options outside academia anymore.

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This dissertation has greatly contributed from the feedback that I received from colleagues and fellow academics who I thank. The finance group at Erasmus School of Economics offered an inspiring environment. I feel privileged to have travelled to conferences and to have visited Stockholm School of Economics. Per Strömberg and his colleagues provided me with a deeper and stronger motivation than ever to push for the best.

What is life without a bit of fun? Writing a dissertation can be stressful. With my friends it was easy to forget the frustrations and find balance in life. I thank them for that.

I thank my family. To start with the youngest bunch. Seeing a new generation being born, puts everything in perspective and provides a new view on the past, current, and future. While growing up, under the overseeing eyes of my brother

Sjanil and sister Chara, I was free to explore, investigate, and discover the world. Without doubt, this freedom was a key factor for my character development and it awakened my intrinsic research side. In the later stages of my life, Irene was there as well who took on a similar role during my life as a student and thereafter. Thank you all so much.

Throughout my life, I have been lucky to have the support of two loving parents. At no time during my life, I felt that there were limits to what I could do or to what I wanted to do. It is in this environment in which a passion for continuous learning developed and in which a dream to contribute emerged. While a dissertation may be a first step, bigger things are yet to come. Dear parents, Nersing and Petra, thank you.

Lastly, I want to thank my girlfriend, Martijne. I cannot describe how often she was able to re-energize me, support me when needed, and to motivate me to continue my efforts in academia. I want to acknowledge the ordeals she had to go through with me working late and in the weekends and talking too much about work. Without you, this would not have been possible. Thank you.

Chapter 1

Introduction

1.1 Introduction to Private Equity

Once upon a time, there was private equity. Nowadays, we are familiar with the vocabulary of private equity investments, for example with the term *leveraged buyout*, but this has not always been the case. Although private equity investments have existed in a variety of forms since the beginning of the corporate market, it was the leveraged buyout of RJR Nabisco that marked the new era of private equity and characterized the landscape of private equity as we know it today. The deal may perhaps even be described as the embodiment of private equity power, since it showed that private equity ownership can compete with public ownership. Subsequent deals and research papers supported this notion and some even argued that the private equity ownership structure may be superior to the public form (Jensen, 1989). However, critics claim that the private equity ownership structure is not indefinitely better, and the behavior of private equity firms is actually similar to that of corporate raiders. In that context, the private equity investors behind the RJR Nabisco deal, were famously referred to as barbarians (Burrough and Helyar, 2010).

But since then, the private equity market matured and went through some distinct changes. This dissertation documents and analyzes one of the key developments in this market, namely acquisitions by private equity owned portfolio companies. The

recent surge in acquisitions by private equity owned companies, raises new questions about the private equity ownership model. Which initial conditions may motivate private equity firms to pursue these strategies? Are acquisitions just a tool for private equity firms to deploy more capital in competitive times? Which distinguishing characteristics of the private equity ownership can explain their acquisition performance? Luckily, improvements in data quality offer opportunities to obtain new insights into these questions. This dissertation exploits these opportunities and aims to discover the impact of private equity ownership on acquisition activities and acquisition performance.

1.2 Outline

This dissertation is organized as follows. In Chapter 2 and Chapter 3, attention is devoted to serial acquisitions strategies by private equity. These strategies are a subset of the private equity market, but exemplify an increased focus of private equity firms on operational growth. Chapter 4 generalizes the relation between private equity ownership and acquisition activities.

Chapter 2, "Anticipation Value in Serial Acquisitions", provides a theoretical framework, based on the *anticipation of growth option value*, which can explain the occurrence of serial acquisition strategies in private equity. In the last decades, a buy-and-build type of strategy has emerged within private equity with an apparent opposite aim compared to more traditional leveraged buyouts, which usually center around a highly leveraged structure and cost restructuring. In this serial acquisition strategy, the private equity investor acts as an industry consolidator, with the aim of transforming several smaller companies to an efficient scale before exiting. Although private equity investors act here as strategic serial acquirers, their strategy is difficult to explain with extant theories for serial acquisitions, such as empire building, CEO hubris, desperation for growth, and learning. Our *anticipation argument* advances an alternative account.

In this chapter, we model a buy-and-build strategy as an interrelated chain of

platform, follow-on, and exit options. The real options framework fits the strategy well, since it can incorporate flexible decision making: conditional on having invested in the platform company, the consolidator has a compound option consisting of follow-on acquisition options and subsequent exit options. The model implies that a major component of the value of the strategy is driven by future growth option value that goes beyond the focal deal. It is exactly this anticipation of the future growth option value that drives the initiation of the strategy.

We suggest that to be effective in creating potential option value, a buy-and-build strategy requires certain industry conditions when selecting a platform, appropriate company conditions for follow-ons, and financial market conditions at exit, all influencing the exercise of the option chain. We provide empirical evidence for these conditions, using a European sample of buy-and-build strategies by private equity as a natural test setting since it 1) excludes most alternative explanations for serial deals, and 2) the data allow us to specify the platform, follow-on, and exit options. Furthermore, the data provide new evidence of serial acquisition in private equity that contrast with traditional restructuring strategies.

Overall, this chapter provides insights on a general anticipation of real option value in serial acquisitions.

Chapter 3, “Private Equity Funds Acting as Strategic Buyers”, analyzes the operating performance of buy-and-build strategies by private equity. Investors generally believe that private equity firms buy companies for financial reasons, such as filling them up with debt to obtain tax benefits, taking advantage of underpricing, or cutting costs. While strategic buyers buy companies with the purpose to realize operating synergies. This chapter argues that we may need to adjust this common perception.

The developments in the private equity suggest that private equity firms now also try to realize operating synergies, through buy-and-build strategies. This strategy has received considerable attention, but is also viewed with skepticism. On the one hand, it is believed to be a necessity to stimulate fund returns in times – when as a result of competition – traditional value drivers based on financial, governance, and

cost restructuring have become a common good in the private equity market. On the other hand, the increase in the popularity of this strategy may also be driven by other motives such as multiple arbitrage or as critics argue maybe even window-dressing to motivate fundraising or justify spending committed capital. In this chapter, we explore whether private equity firms indeed use buy-and-build strategies to realize synergies.

A methodological novelty of our approach is to construct *placebo strategies* – the observationally equivalent portfolios constructed from the stand-alone (non-acquired) companies similar to the companies within our observed strategies. This control group mimicks the acquisitions in the treated group and can therefore control for inorganic changes in the operating measures, such as the inorganic growth that may result from simply bundling more and more companies in a series of acquisitions. By running a difference-in-differences analysis with this control group, we are able to tease out the organic changes. The difference in outcomes between actual and comparable placebo strategies post acquisition is a plausible measure for the synergetic changes, since synergies are commonly understood as the relative performance compared to non-acquired companies.

We carefully collect private equity investments to closely match them to the conceptual definition of buy-and-build strategies as advanced by Smit (2001). That is, we scan for private equity investments in portfolio companies that act as platforms for subsequent follow-on acquisitions. In these deals, the private equity firm aims to exploit a long term synergetic growth relationship. Then to construct complete strategies, we utilize rich ownership data to map the ownership structures of each investment and to identify the platform company, related follow-on acquisitions, and exits. We identify 818 platforms and related 1,346 follow-on acquisitions, completed between 1997 and 2016 in seven major European private equity markets.

The three main findings are as follows. First, we find that buy-and-builds strategies on average increase the profitability in the long-run. Second, we find a positive relation between these organic improvements and exit decisions. Using a duration analysis, we show that the probability of exiting increases with time and with or-

organic improvements profitability. Splitting the sample into completed (exited) and uncompleted (non-exited) strategies, indeed shows that the former group drives the positive results and these completed strategies have organically increased their sales and profitability. These results indicate that the organic improvements are a notion of “success”, and this hold for both shorter-held and longer-held strategies. Third, by analyzing subsets where synergies are theoretically expected to be different, we evidence that reinforces our interpretation that the organic changes in our strategies represent synergies.

Overall, this chapter shows that private equity firms aim to realize organic improvements that relate to synergies, suggesting that they do act as strategic buyers in buy-and-build strategies.

In **Chapter 4**, “Acquisitions under Private Equity Ownership”, I study whether private equity ownership affects acquisition activities and the level of post-acquisition operating performance. I find evidence that suggest that it does: Acquisitions by private equity-owned companies (PE-owned companies) display higher organic growth (that is growth above the size effect due to the acquisitions) than acquisitions by companies that are not owned by private equity (non-PE-owned companies).

More generally, this chapter aims to address whether the ownership structure of the acquirer matters for acquisition activities and post-acquisition success, where I differentiate between PE-owned and non-PE owned companies. While acquisitions are generally believed to be important for the development of companies and industries, the literature on acquisitions is mixed. The literature on mergers and acquisitions frequently associates acquisitions with the inability to deliver expected operating improvements, while the literature on private equity, positively relates private equity ownership to operating performance. So it is a question whether the acquisition performance is different under private equity ownership, and if so, why.

To address my research question, I consider all companies that make acquisitions in seven European countries between 1997–2018 and differentiate the acquirers by the identity of the controlling owner (PE vs. non-PE). In total, I collect over 2,500 acquisitions made by almost 1,200 PE-owned companies and more than 50,000 ac-

quisitions made by over 33,000 non-PE-owned companies. Subsequently, I analyze the post-acquisition operating performance of these deals in a matched difference-in-differences framework. Similar to the previous chapter, this chapter also exploits *placebo strategies* as control groups to measure organic operating changes. The chosen methodology in this chapter aims to address endogeneity concerns that may reflect from private equity timing and selection skills and are conducive of the estimated relation.

The main findings are as follows. First, PE-owned acquirers display significantly higher organic growth than non-PE-owned acquirers. But, while the negative growth found in acquisitions by non-PE-owned companies may be driven by the removal of redundant assets, I do not find any significant differences in profitability. The results do not seem to be driven by private equity firms “cherry-picking” higher quality acquirers, but rather are more in line with PE ownership actually making these companies better.

Second, when analyzing the performance of previously PE-owned companies, I find evidence that suggest that the benefits from private equity ownership seem to “stick” with the portfolio company even after the private equity firm has exited, indicating that private equity ownership has long-term implications for portfolio companies.

Third, several attributes of the private equity ownership structure – related to providing liquidity, improving the governance structure, and providing acquisition experience – may contribute to improved acquisition performance. I analyze this last argument of acquisition experience in more detail and find confirmatory results: PE-owned companies without prior experience show a similar acquisition pattern as experienced non-PE owned companies.¹ Subsequently, I analyze the acquisition patterns and acquisition performance of previously PE-owned companies as well and find results that are in line with the notion that knowledge spillovers from the private equity firm to the PE-owned company.

¹The argument is based on two views. First, experience from previous deals may improve the performance in future acquisitions. Second, private equity firms are active acquirers, and therefore may also be experienced and knowledgeable.

Fourth, private equity ownership, is related to a higher likelihood of acquisitions, with a factor ten, which is in line with higher expected value from acquisitions under PE ownership.

Finally, other results indicate that deals completed under private equity ownership may reflect higher quality deals. For example, under private equity ownership, (potential) acquirers are on larger, while their targets are relatively smaller, and both are more profitable compared to non-PE-owned acquirers and targets. Splitting the non-PE-owned acquisitions based on these characteristics, reveals that these are indeed important selection criteria for completing successful deals in terms of operating performance.

Overall, the chapter shows that private equity ownership structurally affects acquisition decisions of portfolio company also by providing acquisition experience. Private equity ownership is thus an alternative route for obtaining acquisition knowledge, which stimulates growth.

Finally, **Chapter 5** summarizes the key findings of this dissertation and concludes. The chapter ends with a discussion on directions for future research.

1.3 Declaration of Contribution

In this section, I declare my contribution to the chapters of this dissertation and also acknowledge the contribution of others.

Chapter 1: The majority of the work in this chapter has been done independently by the author of this dissertation, but was polished using the feedback of the promoter and supervisor.

Chapter 2: This chapter is based on the paper Smit and Bansraj (2019). This chapter consists of two key (integrated) parts. First, the development of a theoretical framework, and second, the empirical testing of the propositions from the theoretical framework. The author of this dissertation strongly contributed to the theoretical framework – which was developed jointly with the co-author – and did the majority of the work for the empirical analysis.

Chapter 3: This chapter is based on the paper Bansraj, Smit, and Volosovych (2020). It has benefited from feedback of Theodosios Dimopoulos, Tim Jenkinson, Sebastian Gryglewicz, Yael Hochberg, William L. Megginson, Peter Severin, Per Strömberg, Daniel Urban and the participants of the 2019 FMA European Conference in Glasgow, the 34th congress of the European Economic Association in Manchester, the 2019 Private Capital Conference in Montreux, the 17th Finance, Risk and Accounting Perspectives Conference at Hanken School of Economics, Helsinki, the 2019 Global Finance Conference, the 2019 European Financial Management Association Conference, the 2019 Private Equity Research Symposium at UNC Chapel Hill, and seminars at Erasmus University Rotterdam, Frankfurt School of Finance and Management, University of Groningen, and Stockholm School of Economics. My contribution includes the formulation of the research question, the data collection and empirical analysis, and the writing of the first draft.

Chapter 4: This chapter is based on the sole-authored paper Bansraj (2020). I thank Han Smit (promoter), Per Strömberg (host during research visit), and Vadym Volosovych (supervisor) for their extensive discussions and feedback. I also thank Sebastian Gryglewicz, Stefan Obernberger, Daniel Urban, and the participants at the seminars of Aarhus University, Cass Business School, Copenhagen Business School, Erasmus University Rotterdam, Goethe University, Lancaster University, NHH Norwegian School of Economics, VU Amsterdam, and University of St. Gallen and the members of Stockholm School of Economics (SSE) and Swedish House of Finance (ShoF) for valuable comments and suggestions. Part of the data for this chapter is the same data that is used in Chapter 3. Any other data used in this chapter is collected by the author of this dissertation. The chapter was polished based on the feedback of the promoter and supervisor.

Chapter 5: The majority of the work in this chapter has been done independently by the author of this dissertation, but was polished using the feedback of the promoter and supervisor.

Chapter 2

Anticipation Value in Serial Acquisitions¹

¹This chapter is based on the paper Smit and Bansraj (2019).

Chapter 3

Summary and Conclusion

This final chapter reviews the main ideas and key findings from this dissertation on private equity ownership and acquisitions by their portfolio companies. The chapter closes with a discussion of directions for future research.

The private equity market is maturing and an increasingly greater proportion of the capital that is raised, is now being invested in subsequent acquisitions by PE-owned portfolio companies. Despite these recent, but material, developments, we still know little about how private equity ownership is related to acquisition activities and acquisition performance.

In Chapter 2, we introduced a real options framework that models a serial acquisition strategy as a portfolio of interrelated real options. This framework can be used to explain the emergence of the buy-and-build strategy in private equity. We developed a motive for serial acquisitions that builds its arguments based on the anticipation of future growth option value. The new element of *anticipation* of future option value beyond the focal deal can exist next to existing explanations for serial acquisitions (e.g., empire building, CEO hubris, desperation for growth, and learning) and can be applied more broadly to general acquisition strategies.

Based on the anticipation argument, we show that the investors select and time the platform acquisition in conditions where they anticipate potential value creation from follow-on and exit options that goes beyond the focal deal itself. The optimal

financial, company and industry conditions for serial deals that follow from the theory is supported by empirical evidence. We used buy-and-build strategies by private equity as a showcase, since it provides a natural test setting. At the inception of the fund, the investors determine a fixed buy-and-build period (maturity), and the structure allows us to specify a buy-and-build strategy as an interrelated chain of options, that involves platform, follow-on, and exit options. We also isolate the more general effect of anticipation from other explanations that apply to listed firms.

The chapter therefore advances strategic management theory by offering a dynamic view on serial acquisitions based on real option theory. The insights into the inter-temporal dependencies and optimal conditions that we find are important for scholars and for private equity investors to optimize their strategies.

In Chapter 3, we analyzed the operational performance of buy-and-build strategies by private equity investors. Private equity fund managers more frequently turn to growth as an important value driver, potentially due to the fierce competition for deals. Through buy-and-build strategies, the PE investors can do just that; combine the long-term focus of strategic buyers with the financial value drivers of LBOs in private equity. However, the strategy has been viewed with healthy skepticism.

We showed that, in buy-and-build strategies, private equity investors are able to improve the profitability of the combined entity compared to the control group that consists of placebo strategies. Digging deeper into the motivation of private equity, and classifying strategies into more successful and less successful strategies, we show that an important driver of the exit decision is related to the organic operating improvements. This is in line with the notion that realizing operating synergies are indeed one of the metrics of “success” of this strategy.

The study exploited the heterogeneity of the strategies. First, we differentiated between the length and types of industries to understand what type of organic improvements may develop, and whether these organic improvements are related to potential synergetic benefits between the platform and follow-on companies. Overall, operating improvements are found precisely where the synergies are theoretically expected to be larger and the complexity of the developed synergies seems to be related

to the strategy characteristics. Second, to determine whether the benefits primarily stem from consolidation acts or not, we analyzed the performance of horizontally- and vertically related strategies. It appears that in order to succeed in a modern highly-competitive market environment private equity firms need to target longer-term investment opportunities and carefully select the types of companies in their portfolio taking into account the entire production value chain.

In the chapter, we advanced the measurement of operational performance for acquisition strategies, where the challenge comes from the fact that acquisitions themselves may distort the measurement. To control this “acquisitive” effect, we created a benchmark that includes hypothetical acquisitions that mimic the actual acquisitions and thereby established the correct comparison group at the strategy level. Where the real acquisitions can develop synergies, the control group cannot, but both experience a change in the company’s financials as a result of the (hypothetical) acquisition. Neglecting to account for this acquisitive effect may lead to obvious mismeasurements such as overestimating the organic growth or inappropriately associate acquisitions with changes in profitability where there are none (or vice-versa). The methodology that we proposed can easily be extended to other types of acquisition or divestiture activities.

Overall, the findings in this chapter provided a positive view on private equity in which private equity is able to improve the operational performance of its portfolio companies through buy-and-build strategies.

Finally, in Chapter 4, I generalize the relation between private equity ownership and acquisition activities and performance. Going back to Jensen (1989), companies under private equity ownership may operate differently from their public peers as a result of better aligned incentives between the principal and the agent. One of the key developments in the private equity market is that a progressively increasing share of PE-owned companies now completes acquisitions, adding up to five percent of the acquisitions in the M&A market in recent years. In this context, the chapter addressed the question whether the private ownership structure also mattered for the acquisition activities and performance, and which elements of this ownership

structure may explain any differences.

The analyses covered over 55,000 acquisitions by PE-owned and non-PE-owned companies. We found that acquisitions by PE-owned companies display higher organic growth relative to acquisitions by non-PE-owned companies, while there is no additional decrease in profitability, and that private equity ownership is related to a higher acquisition likelihood.

While several channels may be active, the chapter zooms in on the role of acquisition experience. The private equity firm is an experienced acquirer and this experience may benefit and transfer to the portfolio company. By exploiting ownership structures before, during, and post the private equity holding period, and benchmarking them to never-PE-owned companies, the study was able to provide insights into the development of acquisition experience across the three different stages of private equity ownership. Before becoming PE-owned, no significant differences were identified, but at the moment a company becomes PE-owned, its acquisition pattern is similar to experienced non-PE-owned companies. While the pattern weakens when the private equity firm exits, knowledge seems to have partially spilled over to the portfolio company, enabling them to continue to outperform in terms of organic growth in the long term.

The analysis of acquisitions by PE-owned companies sheds light on the unique characteristics of the private equity model that impact the development of operating performance when making acquisitions, one of which is the acquisition experience. Experience is a complex factor to measure, however its importance should not be overlooked. The findings in this chapter therefore provided new insights on experience that may help us to understand how economic value is created in acquisitions. These findings may also explain why so many acquisitions do not realize the expected benefits, since many acquiring companies may have insufficient (access to) acquisition knowledge.

Future research

This section proposes directions for future research, revolving around further development of theory and extensions for empirical verification.

The anticipation argument we propose is applicable beyond the private equity deal market. However, for listed firms, one key issue is, how can future research more effectively separate the anticipation of a real options predictions from those of alternative theories? The development of real options theory for M&A of listed firms could probably benefit from a further integration with learning, empire-building motives, overconfidence and mispricing, and agency theory. Listed firms also offer new opportunities for empirical verification. For example, through announcement returns and deducting (the change) in the present value of growth options from market values, one could measure how the uncertainties and option values develop over the course of the strategy.

In this dissertation, we showed that private equity firms do develop organic operating improvements in buy-and-build strategies. Future research could identify the relation between buy-and-build strategies and PE returns and to what extent multiple arbitrage matters, which may be driven by a reduction in risk or by an improvement of growth opportunities in BB strategies. Attention may be given to the contribution of acquisitive and organic growth to general or private equity returns.

Linking private equity returns to buy-and-build strategies, also opens up the question how buy-and-build returns compare to traditional private equity investments. If competition drove private equity firms to buy-and-build strategies, it is not immediately clear whether this is indeed a optimal strategy for all. Especially interesting would be to understand how the buy-and-build performance compared to traditional strategies, is related to private equity firm characteristics. It may be that buy-and-build strategies, which are by nature more complex, represent a more excludable strategy.

Finally, in this dissertation, I showed a relation between PE ownership and an increase in the acquisition likelihood and acquisition speed. This finding may have larger-scale implications, where PE ownership affects the intensity of acquisition waves or where acquisitions by PE-owned companies might even initiate waves. Thus, the findings in this dissertation may relate to broader implications for industrial organization.

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Chapter 4

Samenvatting

Dit laatste hoofdstuk bespreekt de belangrijkste ideeën en bevindingen uit dit proefschrift over *private equity* eigendomsstructuren en overnames door hun portfolio bedrijven. Het hoofdstuk sluit af met een discussie over toekomstige onderzoek-richtingen.

In hoofdstuk 2 van dit proefschrift beschouwen we seriële overnamestrategieën als een portefeuille van interacterende reële opties. Aan de hand van deze reële optie benadering zijn we in staat de toename van *buy-and-build* strategieën in de private equity markt te verklaren. Het motief achter seriële overnamestrategieën is gebaseerd op de anticipatie van toekomstige groei optiewaarde. Dit nieuwe element van *anticipatie* ontleent haar waarde aan mogelijkheden die voorbij de huidige overname liggen, maar die wel door de huidige overname beschikbaar worden. Anticipatie kan als verklaring bestaan voor seriële overnames naast al bekende motivaties (waaronder machtsuitbreidingen, CEO-hoogmoed, groei als laatste redmiddel en het verwerven van kennis) en kan ook worden toegepast op overnamestrategieën buiten private equity.

Gebaseerd op het anticipatie argument, laten we zien dat private equity investeerders hun *platform* overname selecteren en timen wanneer de condities in de markt aantrekkelijk zijn. Namelijk, deze overnames vinden plaats wanneer de geanticipeerde mogelijke waardecreatie van *follow-on* groeiopties en verkoopopties hoog

is. In het theoretische kader differentiëren wij tussen financiële, bedrijfsspecifieke en industriële condities die van belang zijn voor de waarde van de seriële overnamestrategie en vinden ondersteund bewijs voor deze condities in onze empirische analyse. Buy-and-build strategieën door private equity firms kunnen als een testgrond worden gebruikt om ons hypothese omtrent anticipatie te testen vanwege enkele aantrekkelijke karakteristieken. Namelijk bij de oprichting van het private equity fonds wordt een vaste levensduur bepaald (de vervaldatum van de opties) en de structuur van de seriële buy-and-build strategie stelt ons in staat om de reeks van interacterende platform, follow-on en verkoopmogelijkheden als reële opties te specificeren. Hierdoor kunnen we het anticipatie effect isoleren van andere verklaringen voor seriële strategieën die bijvoorbeeld gelden voor beursgenoteerde bedrijven.

De dynamische inzichten op basis van reële optie theorie voor seriële overnamestrategieën in dit hoofdstuk dragen bij aan de strategische management literatuur. De inzichten in de afhankelijkheden tussen de reële opties en de ideale condities kunnen door academici en private equity investeerders worden gebruikt om hun strategieën te optimaliseren.

Hoofdstuk 3 analyseert het operationele functioneren van buy-and-build strategieën door private equity investeerders. Steeds vaker wordt groei als een belangrijke drijver van waarde aangemerkt door private equity fonds managers. Een potentiële verklaring kan worden gevonden in de competitie voor investeringen die is ontstaan in de private equity markt. Via buy-and-build strategieën zijn private equity investeerders in staat om deze groei te verwezenlijken en de lange termijn visie van strategische kopers te combineren met de financiële waardecreatie in traditionele *leveraged buyouts*. Echter bestaat er enige twijfel over de toegevoegde waarde van deze strategieën.

We laten zien dat private equity investeerders via buy-and-build strategieën de winstgevendheid van de samengevoegde entiteit verhogen ten opzichte van een vergelijkbare controle groep die bestaat uit een placebo strategie. Om de drijfveer van private equity achter deze strategie beter te begrijpen, splitsen we de observaties in voltooide en niet voltooide strategieën. De keuze voor private equity om de

samengevoegde entiteit te verkopen hangt sterk samen met de organische operationele verbeteringen, welke wij interpreteren als synergiën. Deze bevinding is in lijn met de gedachte dat het realiseren van synergiën een belangrijke graadmeter is voor het “succes” van de strategie.

In de studie analyseren wij de heterogeniteit van de strategieën om onze synergie interpretatie te ondersteunen. Ten eerste, de type synergiën of hun complexiteit, kunnen afhankelijk zijn van de lengte van de strategie en de type industrie waarin is geïnvesteerd. Wij laten bijvoorbeeld zien dat de type synergiën die complex zijn en meer tijd kosten om te ontwikkelen alleen plaatsvinden in de strategieën die langer duren. De analyses laten over het algemeen zien dat de operationele verbeteringen precies plaatsvinden daar waar de (type) synergiën tussen platforms en follow-ons theoretisch mogen worden verwacht. Ten tweede, een bekende notie is dat buy-and-build strategieën waarde creëren door middel van horizontale overnames of consolidatie. Echter, veel van de overnames in onze dataset zijn niet horizontaal. Sterker nog, de resultaten laten zien dat private equity investeerders voornamelijk operationele verbeteringen realiseren door de waardeketen in acht te nemen.

Een contributie van het hoofdstuk is de meetmethode die is gebruikt om het operationele functioneren van overname strategieën te analyseren. De voornaamste uitdaging komt voort uit het feit dat de overnames kunnen leiden tot een verstoring van de meting. Om voor dit “overname” effect te controleren, maken wij gebruik van een specifieke controlegroep waarin hypothetische overnames zijn toegevoegd. Deze hypothetische overnames lijken op de echte overnames en stellen ons in staat om de juiste controlegroep te ontwikkelen op het niveau van de strategieën. Waar de echte overnames kunnen leiden tot synergiën in de buy-and-build strategieën, kunnen de hypothetische overnames dit niet in de controlegroep, terwijl beide groepen wel een vergelijkbare verstoring ondervinden in hun financiële rapportage door de overname. Het negeren van het overname effect kan leiden tot het verkeerd meten van de operationele prestaties zoals een overschatting van organische groei of het kan leiden tot het onjuist associëren van overnames met veranderingen in winstgevendheid terwijl er geen is (of vice versa). De methodologie die wij aanraden kan echter ook

makkelijk worden toegepast op andere type overnames of afsplitsingen.

Concluderend, de bevindingen in dit hoofdstuk belichten een positieve kant van private equity investeringen. Namelijk door buy-and-build strategieën zijn private equity investeerders in staat de operationele prestaties van hun portfolio bedrijven te verbeteren.

Tenslotte in hoofdstuk 4, generaliseer ik de relatie tussen private equity eigendomsstructuren en overname activiteiten en - prestaties. In de handen van private equity investeerders, worden de belangen tussen de principaal en agent efficiënter georganiseerd, waardoor de operationele prestaties beter kan zijn dan in beursgenoteerde bedrijven (Jensen, 1989). Een van de huidige ontwikkelingen in de private equity markt is dat een toenemende fractie van de PE-portfolio bedrijven overnames doen. In de overname markt zijn ongeveer vijf procent van de overnames gedaan door PE-portfolio bedrijven. In deze context, probeert dit hoofdstuk de vraag te beantwoorden of de private equity eigendomsstructuur belangrijk is voor de overnamefrequentie en -prestaties. Vervolgens bespreekt het hoofdstuk welke karakteristieken van deze eigendomsstructuur de mogelijke verschillen kunnen verklaren.

In dit hoofdstuk worden meer dan 50.000 overnames door PE-portfolio bedrijven en door niet-PE-portfolio bedrijven geanalyseerd. Ik vind bewijs dat overnames door PE-portfolio bedrijven hogere organische groei laten zien ten opzichte van de overige overnames, echter is er geen eenduidig bewijs dat dit deze additionele groei ten koste van de winstgevendheid van de bedrijven gaat. Verder vind ik dat de private equity eigendomsstructuur gerelateerd is aan een hogere overnamefrequentie.

Het hoofdstuk belicht verder het belang van ervaring in het doen van overnames. Gegeven dat een private equity investeerder deze ervaring heeft, dan is het mogelijk dat de portfolio bedrijven van private equity voordeel halen uit deze ervaring en mogelijk zelfs een deel van die kennis of ervaring eigen maken. Om dit vraagstuk te beantwoorden, maak ik gebruik van de drie fases van PE-portfolio bedrijven: voordat ze gekocht worden, wanneer ze eigendom van private equity zijn en nadat ze door de private equity investeerder verkocht heeft. Vervolgens vergelijk ik de prestaties gedurende deze drie periodes met bedrijven die nooit zijn gekocht door private equity

om zo inzichten te verkrijgen in de ontwikkeling van overnamekennis en -ervaring in portfolio bedrijven. Voordat een bedrijf wordt overgenomen door private equity gedragen ze zich niet anders dan andere onervaren kopers. Echter op het moment dat ze in de handen komen van private equity, laten ze een overnamepatroon zien dat vergelijkbaar is met ervaren kopers. Na de verkoop, lijkt de ervaring enigszins verloren te gaan, echter blijven deze voormalige PE-portfolio bedrijven zich ervarener gedragen. Dit suggereert dat de kennis van de private equity investeerder gedeeltelijk eigen wordt gemaakt door het portfolio bedrijf waardoor het in staat blijft om na een overname hogere organische groei te verwezenlijken op de lange termijn.

De analyse van overnames door PE-portfolio bedrijven laat zien dat de private equity eigendomsstructuur enkele unieke karakteristieken bezit die van invloed zijn op de operationele prestaties wanneer een bedrijf overnames doet. Een van deze karakteristieken is ervaring in overnames. Ervaring is een complex begrip, desondanks moeten we het belang van ervaring niet onderschatten. De bevindingen in dit hoofdstuk geven ons nieuwe inzichten in dit belang en kan ons helpen te begrijpen hoe economische waarde gecreëerd kan worden in overnames. De bevindingen kunnen mogelijk ook verklaren waarom zoveel overnames niet in staat zijn om de verwachte waarde te realiseren, omdat veel bedrijven geen of niet voldoende kennis hebben om overnames succesvol te laten verlopen.

Toekomstig onderzoek

Deze sectie doet enkele suggesties voor toekomstig onderzoek, voornamelijk gericht op het verder ontwikkelen van de theorie en mogelijke extensies voor empirische testen.

De toepasbaarheid van het anticipatie argument dat wij voorstellen is breder dan de private equity markt. Voor beursgenoteerde bedrijven is er een belangrijke uitdaging om de verwachtingen van het anticipatie effect van toekomstige reële opties te onderscheiden van alternatieve theorieën. De ontwikkeling van reële optie theorie voor overnames door beursgenoteerde bedrijven kan mogelijk profiteren van verdere integratie van verwerving van kennis, machtsuitbreidingen, hoogmoed, miswaarderdingen en principaal-agenttheorie. Het analyseren van beursgenoteerde bedrijven biedt

echter ook nieuwe mogelijkheden voor empirische testen. Bijvoorbeeld, op basis van aankondigingsrendementen en het aftrekken van de (verandering in de) verdisconteerde waarde van groei opties van de marktwaarde, is het mogelijk om te meten hoe onzekerheden en optiewaarde zich ontwikkelt over het verloop van de seriële overnamestrategie.

In dit proefschrift, hebben wij aangetoond dat private equity investeerders via buy-and-build strategieën organische verbeteringen bewerkstelligen in de bedrijfsvoering. Toekomstig onderzoek zou de relatie tussen deze buy-and-build strategieën en de rendementen van private equity analyseren. Hierdoor kunnen we inzichten verschaffen over het belang van *multiple arbitrage* op basis van een reductie in onzekerheid of een toename in groeimogelijkheden. Verdere aandacht kan worden geschonken aan het belang van opgekochte groei en organische groei voor rendementen in overnames.

Naast de implicaties voor private equity rendementen, is het mogelijk interessant om buy-and-build strategieën te vergelijken met meer traditionele private equity investeringen. Indien competitie in de private equity markt inderdaad een drijfveer is achter de toename van buy-and-build strategieën, dan is het nog niet geheel duidelijk of buy-and-build strategieën altijd de dominante keus is. Het zou daarom bijvoorbeeld interessant zijn om te begrijpen hoe buy-and-build strategieën en traditionele investeringen afhankelijk zijn van de karakteristieken van de private equity investeerder. Het is mogelijk dat buy-and-build strategieën vanwege hun complexiteit alleen voor enkele private equity investeerders een aantrekkelijke optie is.

Tot slot, in dit proefschrift laat ik zien dat private equity eigendomsstructuren gerelateerd zijn aan een toename in overnameverwachtingen en overname snelheid. Deze bevinding heeft mogelijk grotere implicaties, omdat private equity daardoor de intensiteit van overnamegolven kan beïnvloeden. De bevindingen tonen dus aan dat private equity mogelijk implicaties heeft voor de industriële organisatie.

About the Author

Dyaran Selwin Bansraj was born on 14 January 1991 in Losser, The Netherlands. He holds a Bachelor's degree in Economics and Business Economics and a Master degree (cum laude) in Financial Economics from Erasmus School of Economics, Erasmus University Rotterdam. While studying Financial Economics, he simultaneously completed a Master degree in Financial Law from Erasmus School of Law and took part in the ESE Research Traineeship program. Subsequently, he joined the Finance group at the Department of Business Economics of Erasmus School of Economics to pursue a PhD.



His main research interests lie at the intersection of corporate finance, private equity, mergers and acquisitions, and industrial organization. His research has been presented at multiple international conferences, among which the Real Options Conference (2017), Private Capital Conference (2018), FMA Europe (2018), PERC Symposium (2019), and at several other events, including invited brown bag seminars at top schools. In the Fall of 2018, he was a visiting scholar at Stockholm School of Economics.

Besides his research, Dyaran has devoted considerable time to education. He supervised bachelor and master theses, gave plenary sessions and tutorials in the graduate course Advanced Corporate Finance and Strategy, and was part of the Erasmus Data Service Centre that was awarded the ERIM Research School Service

Award in 2016. As part of the intensification and digitization goals of the Erasmus School of Economics, he took part in a project that developed a new online course and tutorials, and integrated these developments into an existing course. These efforts were awarded with the ESE Faculty Educational Award in 2019.

Currently, he continues his academic career as a Lecturer in Finance at Cass Business School, City, University of London.

Portfolio

Research papers in this dissertation

- [1] How Does Private Equity Ownership Affect Acquisition Performance?
- [2] Can Private Equity Funds Act as Strategic Buyers? Evidence from Buy-and-Build Strategies with Han T.J. Smit and Vadym Volosovych
- [3] Anticipation of Real Options Value in Serial Acquisitions: Evidence from Private Equity with Han T.J. Smit

Conference presentations

- 2019** Private Equity Research Consortium Symposium (Chapel Hill), Finance, Risk and Accounting Perspectives Conference (Helsinki), Corporate Finance Day (Groningen), Annual Congress of the European Economic Association (Manchester), European Financial Management Association (Ponta Delgada), Global Finance Conference (Zagreb), Financial Management Association Europe (Dublin) Association Europe (Dublin), Private Capital Conference (Montreux)
- 2018** Portuguese Finance Network (Lisbon)
- 2017** Real Options Conference (Boston)

PhD courses

Courses	ECTS
Applied Microeconometrics I: Basic Techniques	3
Executive Compensation and other Managerial Incentives	3
Applied Microeconometrics II: Empirical Treatment Evaluation	3
Behavioural Decision Theory	5
Seminar Corporate Finance 1	5
Seminar Corporate Finance 2	5
Applied Econometrics	5
Empirical Corporate Finance	4
English	4
Scientific Integrity	1
Publishing Strategy	1
Corporate Governance	3
Panel Data Econometrics: Theory and Practice	3
Econometrics I	4
Statistical and Methodological Myths and Urban Legends	2

Teaching

[1] Advanced Corporate Finance & Strategy *2015 - 2020*

Teaching a plenary session on real options and serial acquisition strategies, developing and teaching of tutorial sessions, holding office hours, providing exam preparation, and grading exams. This course is part of the Financial Economics program of the MSc Economics and Business at Erasmus School of Economics.

[2] Advanced Valuation and Strategy - M&A, PE, and VC *2018 - 2020*

Project manager and co-developer of this massive open online course (MOOC). Responsibilities included daily coordinating the project, developing material, integrating the MOOC into a graduate course, and moderating.

[3] Bachelor and Master thesis *2016 - 2020*

Supervising bachelor (1) and master (24) students in writing their thesis.

[4] Erasmus Data Service Centre *2016 - 2017*

Supporting faculty and students in data collection through individual sessions and workshops.

The ERIM PhD Series

The ERIM PhD Series contains PhD dissertations in the field of Research in Management defended at Erasmus University Rotterdam and supervised by senior researchers affiliated to the Erasmus Research Institute of Management (ERIM). All dissertations in the ERIM PhD Series are available in full text through the ERIM Electronic Series Portal: <http://repub.eur.nl/pub>. ERIM is the joint research institute of the Rotterdam School of Management (RSM) and the Erasmus School of Economics (ESE) at the Erasmus University Rotterdam (EUR).

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