Essays on Corporate Transactions – Determinants of Underpricing in Equity Carve-outs and M&A Announcement Returns

D I S S E R T A T I O N
of the University of St.Gallen,
School of Management,
Economics, Law, Social Sciences,
International Affairs and Computer Science,
to obtain the title of
Doctor of Philosophy in Management

submitted by

Julian Gabler

from

Germany

Approved on the application of

Prof. Dr. Matthias Brauer

and

Prof. Dr. Dr. Tomi Laamanen

Dissertation no. 5104

Difo-Druck GmbH, Untersiemau 2021

The University of St.Gallen, School of Management, Economics, Law, Social Sciences, International Affairs and Computer Science, hereby consents to the printing of the present dissertation, without hereby expressing any opinion on the views herein expressed.

St.Gallen, May 18, 2021

The President:

Prof. Dr. Bernhard Ehrenzeller

Acknowledgements

I am deeply grateful to my advisor Professor Matthias Brauer for his helpful guidance, constant feedback during all stages of my research, as well as continuous unwavering encouragement and support throughout my dissertation project. I am also very thankful to my co-advisor Professor Tomi Laamanen for his helpful feedback and continuous support of my dissertation project, as well as for being incredibly encouraging and generous with his time during his PhD courses I attended.

Karlsruhe, September 2020 Julian Gabler

Table of Contents

Zusammenfassung der Dissertation ……III

Summary of the Dissertation ……..IV

1 Introduction ……1

2 Study 1 ……7

3 Study 2 ……..49

4 Study 3 ……..76

Zusammenfassung der Dissertation

Die vorliegende kumulative Dissertation umfasst drei empirische Forschungsstudien. In *Studie 1 „The influence of prior issuer-underwriter relationships on underpricing in equity carve-outs"* widmen wir uns sog. „Equity Carve-outs", einer speziellen Form von Börsengängen. Wir argumentieren und stellen empirisch fest, dass der Anstieg des Aktienkurses am ersten Handelstag (sog. „Underpricing") maßgeblich von früheren Kontakten zwischen dem emittierenden Unternehmen und seinem wichtigsten Ratgeber, der beauftragten Investmentbank, abhängt.

In *Studie 2 „The influence of target CSR performance on acquirer acquisition announcement returns"* untersuchen wir den Einfluss vorbildlicher gesellschaftlicher und ökologischer Unternehmensverantwortung („Corporate Social Responsibility", kurz CSR) auf Investorenreaktionen im Kontext der Ankündigung von Übernahmen. Im Rahmen der Studie leiten wir theoretisch her und finden empirisch heraus, dass diese Investorenreaktionen positiver ausfallen, wenn Unternehmen übernommen werden, die sich durch besonders vorbildliche Unternehmensverantwortung auszeichnen.

In *Studie 3 „The influence of acquirer CSR on investor reaction in cross-border acquisitions by emerging market acquirers"* analysieren wir den Einfluss von CSR auf Investorenreaktionen, wenn Unternehmen aus Schwellenländern ankündigen, ein Unternehmen aus einem Industrieland übernehmen zu wollen. Wir argumentieren, ohne jedoch dies empirisch nachweisen zu können, dass akquirierende Unternehmen mit starker CSR eine positivere Investorenreaktion nach Ankündigung der Übernahme erfahren, da die Investoren solchen Unternehmen stärker vertrauen und ihnen eher zutrauen, die typischerweise schwierigen regulatorischen und politischen Rahmenbedingungen einer solchen Art von grenzüberschreitenden Übernahme zu bewältigen.

Summary of the Dissertation

The cumulative dissertation at hand comprises three empirical research studies. *Study 1 "The influence of prior issuer-underwriter relationships on underpricing in equity carve-outs"* is devoted to "equity carve-outs", a special type of initial public offering. We argue and observe that the first day stock price development (the so-called "underpricing") is significantly influenced by prior interactions between the company conducting the ECO and its main advisor, the lead investment bank.

In *Study 2 "The influence of target CSR performance on acquirer acquisition announcement returns"*, we examine the influence of exemplary social and ecological "corporate social responsibility" (CSR) on investor reaction upon the announcement of an acquisition. We hypothesize and find that targeting companies with strong CSR performance is associated with a more favorable investor reaction for an acquirer.

In *Study 3 "The influence of acquirer CSR on investor reaction in cross-border acquisitions by emerging market acquirers"* we analyze the influence of CSR on investor reaction when emerging market acquirers announce the acquisition of companies from developed countries. We argue albeit cannot empirically observe that acquirers with strong CSR performance are accompanied by a more favorable reaction of their investors due to higher trust in the company and a more positive outlook on their ability to navigate the typically challenging regulatory and political environment surrounding these kinds of cross-border acquisitions.

1 Introduction

The dissertation at hand consists of three studies. In the remainder of this chapter, we first provide an individual overview of each study. We then explain the linkages between the three studies, thereby carving out common themes and research questions among the individual studies as well as the broader positioning of this dissertation and its overarching contribution.

Overview of the individual studies

Study 1

"The influence of prior issuer-underwriter relationships on underpricing in equity carve-outs" by Julian Gabler, published as a Working Paper on Alexandria

While most IPO underpricing research focuses on information asymmetries between the issuer and investors (cf. Ritter & Welch, 2002), *Study 1* emphasizes the importance of the issuer-underwriter relationship due to the prevalent firm commitment structure of major US offerings (Lowry, Officer & Schwert, 2010). Drawing on social exchange theory and agency theory, we argue and find that prior interactions between the issuer and the underwriter lead to lower underpricing by establishing a mutually trustful relationship (Pollock, Porac & Wade, 2004; Arthurs, Hoskisson, Busenitz & Johnson, 2008), thereby reducing information asymmetries and lowering the inclination for opportunistic behavior. We further examine how the relationship between prior interactions and underpricing changes in contexts of large offerings, in which there is much to gain from opportunistic underpricing by the underwriter, and in contexts of low underpricing in the IPO market so that opportunistic underpricing becomes easier to detect. Results from our empirical analysis of 202 equity carve-outs conducted on US stock exchanges between 1990 and 2010 suggest that in contexts of large offerings and low average underpricing in the IPO market, prior trustful interactions gain in importance, leading to increasingly lower levels of underpricing. Our study contributes to the IPO underpricing literature by

identifying prior parent firm-underwriter relationships as a determinant of underpricing in equity carve-outs. Furthermore, our study contributes to divestiture performance research by highlighting the critical role of a well-connected parent firm on divestiture success.

Study 2

"The influence of target CSR performance on acquirer acquisition announcement returns" by Julian Gabler, published as a Working Paper on Alexandria and accepted for the Academy of Management Annual Meeting 2021

In *Study 2*, we examine the influence of a target's CSR performance on acquirer acquisition announcement returns. We argue that acquirers face lower information asymmetries and less opportunistic behavior during the acquisition process as well as post-acquisition access to valuable resources when targeting a trustworthy company as proxied by superior CSR status (Godfrey, Merrill, & Hansen, 2009; Kim, Park, & Wier, 2012), resulting in higher acquirer acquisition announcement returns. We furthermore identify the acquirer's own CSR as well as the regulatory focus of its CEO (Gamache, McNamara, Mannor, & Johnson, 2015) as contingency factors moderating the target CSR-acquirer performance relationship. We find empirical support for our hypotheses in a sample of 232 acquisitions announced by public US companies between 2003 and 2013. Our study contributes to research in several important ways. On a theoretical level, by applying it beyond the traditional stakeholders of a company to an acquirer-target setting, we extend prior research's rationale that CSR activities can be value increasing by reducing information asymmetries and opportunistic behavior (Lopatta, Buchholz, & Kaspereit, 2016). Empirically, we first contribute to the M&A literature by identifying CSR performance as a firm characteristic influencing acquisition performance. Second, we add to the CSR literature which tries to establish the hitherto often ambiguous causal direction between CSR and firm performance. Third, we find empirical evidence for the prior research's understanding of CSR as exhibiting insurance-like effects (Godfrey, 2005; Gardberg & Fombrun, 2006).

Study 3

"The influence of acquirer CSR on investor reaction in cross-border acquisitions by emerging market acquirers" by Julian Gabler, published as a Working Paper on Alexandria

In *Study 3*, we analyze the influence of acquirer CSR performance on acquirer announcement returns for a sample of 545 transactions, in which acquirers from emerging countries purchased targets from developed markets. Drawing on stakeholder theory (Waddock & Graves, 1997; Roberts & Dowling, 2002), we argue that emerging market acquirers with higher CSR performance experience more favorable investor reactions upon acquisition announcement since their perceived higher trustworthiness helps them overcome their liability of foreignness in the developed market (Aybar & Ficici, 2009) as well as alleviates their own investors' concerns of being left out post-acquisition. We furthermore hypothesize that the CSR performance-investor reaction relationship is more pronounced in acquisitions characterized by larger institutional or cultural distances between the acquirer and target's countries. With this study, we contribute to the stakeholder perspective on CSR by providing a theoretical explanation how strong historical CSR performance functions as a signal of trustworthiness for a company when interacting with various factions. We furthermore provide an interesting twist to the bootstrapping hypothesis from research on spillover effects in M&A (Martynova & Renneboog, 2008) by arguing that acquirers with strong prior CSR performance receive a more favorable investor reaction as opposed to these authors expecting acquirers with weaker governance standards to receive a more positive investor reaction when targeting companies in markets with higher standards.

Linkages between the three studies and overall conclusion

In the prior section we provided an overview on the three individual studies this dissertation is comprised of. These studies share several common themes, both from a theoretical and empirical perspective. For all three studies, we chose corporate transactions as our empirical phenomenon of interest and tried to

address specific gaps in the respective fields' literatures. Specifically, *Study 1* examines equity carve-outs (ECOs), a special type of initial public offerings (IPOs). *Study 2* is situated within acquisitions by US companies, whereas *Study 3* analyzes emerging market acquirers pursuing targets from developed countries. Both IPOs and M&A are typically complex, opaque situations involving various factions with often conflicting interests and different levels of information (cf. Ljungqvist, 2007; Parvinen & Tikkanen, 2007). As a result, in both settings various information asymmetries (Akerlof, 1978) arise which could potentially be exploited by one of the more informed parties at the cost of the others. In all three studies, we look at the role of trust and trustworthiness (Barney & Hansen, 1994) in alleviating those information asymmetries and conflicts of interests among the parties of the deal network (Pollock, Porac & Wade, 2004). In *Study 1*, trust between two key actors in the ECO process is established by repeated interactions stemming from prior joint corporate transactions. In *Study 2* and *3*, strong CSR performances of the target and acquirer, respectively, function as proxies for the companies' trustworthiness.

We have outlined the individual theoretical and empirical contributions of our three studies in the previous section as well as discuss them in detail in the remainder of this dissertation when presenting each study. Our overarching contribution is best summarized as providing both theoretical rationale and empirical evidence transcending various types of corporate transactions and settings that signaling trust and trustworthiness are effective means for actors to alleviate information asymmetries and hence achieve more desirable outcomes.

References

Akerlof, G. A. (1978). The market for "lemons": Quality uncertainty and the market mechanism. *Uncertainty in Economics* (pp. 235-251): Elsevier.

Arthurs, J. D., Hoskisson, R. E., Busenitz, L. W., & Johnson, R. A. (2008). Managerial agents watching other agents: Multiple agency conflicts regarding underpricing in IPO firms. *Academy of Management Journal, 51*(2): 277-294.

Aybar, B. & Ficici, A., (2009). Cross-border acquisitions and firm value: An analysis of emerging-market multinationals. *Journal of International Business Studies, 40***,** 1317-1338.

Barney, J. B. & Hansen, M. H., (1994). Trustworthiness as a source of competitive advantage. *Strategic Management Journal, 15,* 175-190.

Gamache, D. L., McNamara, G., Mannor, M. J., & Johnson, R. E. (2015). Motivated to acquire? The impact of CEO regulatory focus on firm acquisitions. *Academy of Management Journal, 58*(4), 1261-1282.

Gardberg, N. A., & Fombrun, C. J. (2006). Corporate citizenship: Creating intangible assets across institutional environments. *Academy of Management Review, 31*(2), 329-346.

Godfrey, P. C. (2005). The relationship between corporate philanthropy and shareholder wealth: A risk management perspective. *Academy of Management Review, 30*(4), 777-798.

Godfrey, P. C., Merrill, C. B., & Hansen, J. M. (2009). The relationship between corporate social responsibility and shareholder value: An empirical test of the risk management hypothesis. *Strategic Management Journal, 30*(4), 425-445.

Kim, Y., Park, M. S., & Wier, B. (2012). Is earnings quality associated with corporate social responsibility? *The Accounting Review, 87*(3), 761-796.

Ljungqvist, A. (2007). IPO underpricing. *Handbook of Empirical Corporate Finance, 2*: 375-422.

Lopatta, K., Buchholz, F., & Kaspereit, T. (2016). Asymmetric information and corporate social responsibility. *Business & Society, 55*(3), 458-488.

Lowry, M., Officer, M. S., & Schwert, G. W. (2010). The Variability of IPO Initial Returns. *Journal of Finance, 65*(2): 425-465.

Martynova, M., & Renneboog, L. (2008). Spillover of corporate governance standards in cross-border mergers and acquisitions. *Journal of Corporate Finance*, *14*(3), 200-223.

Parvinen, P., & Tikkanen, H. (2007). Incentive asymmetries in the mergers and acquisitions process. *Journal of Management Studies, 44*(5), 759-787.

Pollock, T. G. (2004). The benefits and costs of underwriters' social capital in the US initial public offerings market. *Strategic Organization, 2*(4): 357-388.

Pollock, T. G., Porac, J. F., & Wade, J. B. (2004). Constructing deal networks: Brokers as network "architects" in the USIPO market and other examples. *Academy of Management Review, 29*(1): 50-72.

Ritter, J. R. & Welch, I. (2002). A review of IPO activity, pricing, and allocations. *Journal of Finance, 57*(4): 1795-1828.

Roberts, P. W., & Dowling, G. R. (2002). Corporate reputation and sustained superior financial performance. *Strategic Management Journal, 23*(12), 1077-1093.

Waddock, S., & Graves, S. (1997). The corporate social performance–financial performance link. *Strategic Management Journal*, *18*(4), 303-319.

2 Study 1: The influence of prior issuer-underwriter relationships on underpricing in equity carve-outs

Abstract

While most IPO underpricing research focuses on information asymmetries between the issuer and investors, this study emphasizes the importance of the issuer-underwriter relationship due to the prevalent firm commitment structure of major US offerings. Drawing on social exchange theory and agency theory, we argue and find that prior interactions between the issuer and the underwriter lead to lower underpricing by reducing information asymmetries and lowering the inclination for opportunistic behavior. We further examine how the relationship between prior interactions and underpricing changes in contexts of large offerings in which there is much to gain from opportunistic underpricing by the underwriter, and in contexts of low underpricing in the IPO market so that opportunistic underpricing becomes easier to detect.

Results from our empirical analysis of 202 equity carve-outs conducted on US stock exchanges between 1990 and 2010 suggest that in contexts of large offerings and low average underpricing in the IPO market, prior trustful interactions gain in importance, leading to increasingly lower levels of underpricing.

Our study contributes to the IPO underpricing literature by identifying prior parent firm-underwriter relationships as a determinant of underpricing in equity carve-outs. Furthermore, our study contributes to divestiture performance research by highlighting the critical role of a well-connected parent firm on divestiture success.

Keywords: underpricing, equity carve-outs, agency theory

Introduction

In the course of initial public offerings (IPOs), a surprising phenomenon occurs on the first trading day of newly listed issues: Returns are substantially above zero, averaging 18.8 percent compared to an average daily market return of only 0.05 percent for the US from 1980 to 2001 (Ritter & Welch, 2002). For the more recent period of 2000 to 2005, Engelen and van Essen (2010) observe similar average first day returns of 21.1 percent. These positive first day returns are termed "underpricing" since they can be interpreted as the initial share offer price being set too low (Ibbotson, 1975).

One of the primary explanations for IPO underpricing in the management and finance literatures is that underpricing results from information asymmetries between the central exchange partners in the IPO process (e.g., Ljungqvist, 2007). The three central actors in an IPO are the issuer (i.e., the company going public), the investment bank acting as the lead underwriter of the new issue, and the investors buying shares in the offering (Pollock, Porac & Wade, 2004). For the purpose of our study and its contribution, it is critical to understand that most studies explaining underpricing with information asymmetries have focused on information asymmetries between the issuer and the investors buying the shares of the issue (cf. the reviews of Ritter & Welch, 2002, and Daily, Certo, Dalton & Roengpitya, 2003). This is surprising since virtually all major IPOs in the US are conducted on a firm commitment basis. (Dunbar, 1998; Lowry, Officer & Schwert, 2010; Jagannathan, Jirnyi & Sherman, 2010). The firm commitment structure involves that the underwriter first purchases all shares offered in the prospective IPO from the issuer and then subsequently sells them to the investor community (so called public placement) (Benveniste & Spindt, 1989; Sherman, 1992). Thus, shares are sold from the issuer to the underwriter and then passed on from there to the investors, instead of being directly sold from the issuer to the IPO investors. The prevalence of firm-commitment IPOs implies that when trying to explain the occurrence of underpricing from an information processing perspective, the extent of information asymmetries between the issuing firm and

the underwriter becomes of primary interest (rather than the information asymmetries between issuer and investors).

Another major implication of the firm commitment structure is that the underwriter is interested in underpricing the issue to minimize its risk exposure and to facilitate its efforts to pass on the shares to investors. Clearly, less marketing efforts have to be expended on parts of the underwriter if the underpricing is substantial. In contrast, underpricing translates to "money left on the table" for the issuer (Loughran & Ritter, 2002; Derrien, 2005). The exchange relationship and the associated information asymmetries between underwriter and issuer thus becomes of crucial importance. Consequently, we make the exchange relationship between underwriter and issuer the focus of our theoretical argument and empirical analysis.

The emphasis on the exchange relationship between issuer and underwriter seems most relevant for explaining underpricing given the firm commitment transaction structure of IPOs. Additionally, the focus on this exchange relationship is intriguing given that it is characterized by bilateral rather than unilateral information (dis)advantages. On the one hand, the issuer is at an informational advantage over the underwriter regarding the specific characteristics of the company going public. As a result of this information disadvantage on part of the underwriter, agency theory suggests that the underwriter will insist on a higher risk premium leading to greater underpricing (Hughes, Liu, & Liu, 2007; Lambert, Leuz, & Verrecchia, 2012). On the other hand, the underwriter possesses superior knowledge about actual market demand, about interested investor clienteles' willingness to pay, or about the favorable timing of the placement. These knowledge and information advantages allow the underwriter to opportunistically underprice an issue to facilitate the sale of shares to investors and to maximize its own returns from the offering (Baron, 1982).

Collectively, information asymmetries in the exchange relationship between issuer and underwriter thus generally seems to induce underpricing. In this paper, however, we extend research on underpricing not only by focusing on the key

information asymmetries between issuer and underwriter (rather than between issuer and investors) but also by considering the "history" of issuer-underwriter exchanges. Drawing on social exchange theory and agency theory, we explore whether repeated interactions between the issuer and the underwriter lead to lower levels of underpricing. Social exchange theory and agency theory suggest that repeated exchanges increase information sharing and trust (Uzzi, 1996), enable more effective monitoring (Dore, 1983), and reduce the likelihood of opportunistic behavior (Uzzi, 1997). In the context of IPOs, repeated prior interactions between issuer and underwriter in other major capital market transactions (i.e., acquisitions, divestitures) create familiarity and help build trust leading to increased information sharing. Among others, this reduces the underwriter's request for an extensive risk premium, lowering underpricing. Moreover, repeated interactions create bonds between the exchange partners and their interest in preserving ties for the future becomes greater. As a consequence, the likelihood for opportunistic behavior on parts of the underwriter decreases as the value of future exchanges is considered.

Finally, we consider important moderating effects on the prior interaction-underpricing relationship. Agency and social exchange theory suggest that the likelihood to behave opportunistically in the face of information asymmetries is contingent on the "stakes" as well as on the risk of detection (e.g., Datar & Alles, 1999). Thus, we also examine how the relationship between prior interactions and underpricing changes in contexts of large offerings in which there is much to gain from opportunistic underpricing by the underwriter, and in contexts of low underpricing in the IPO market so that opportunistic underpricing becomes easier to detect.

We situate our theoretical and empirical analysis in the context of equity carve-outs. Equity carve-outs are IPOs which involve the listing of a unit or subsidiary of mostly large multi-business firms (Schipper & Smith, 1986). Our study contributes to existing research in several ways. First, we refine our understanding of the influence information asymmetries on underpricing by focusing on

information asymmetries between the issuer and the underwriter (rather than between the issuer and investors). We thereby acknowledge the most prevalent structure of IPOs in form of a firm commitment deal structure. More importantly, we consider prior interactions between the issuer and the underwriter as a new explanation for underpricing of equity carve-outs. While previous studies on underpricing in equity carve-outs predominantly focused on subsidiary characteristics (Prezas, Tarimcilar & Vasudevan, 2000; Hogan & Olson, 2004), we present an explanation stressing the pattern of interactions between issuer and underwriter as a determinant for underpricing. In doing, our work complements prior work on the prominent role and ties of underwriters in IPOs. Pollock, Porac and Wade (2004) and Arthurs, Hoskisson, Busenitz, and Johnson (2008), for instance, report that institutional investors and venture capital funds benefit from having ties to the underwriter based on joint offerings prior to the focal IPO. Our findings provide even stronger evidence for the impact of such ties. Unlike venture capital funds and institutional investors which both prefer higher underpricing like the underwriter, the issuing parent company in an equity carve-out prefers lower underpricing to maximize their proceeds from the offering. Thus, the underwriter accommodates not only interests in line with its own due to having a trustful relationship as in the case of venture capital funds and institutional investors, but also opposing interests as in the case of the parent companies in our study.

Moreover, our study contributes to literature on divestiture outcomes (cf. Brauer, 2006; Lee & Madhavan, 2010). Specifically, we identify ties to underwriters as a valuable lever for parent companies to increase returns from equity carve-outs. This finding adds to prior divestiture research exploring the performance outcomes of equity carve-outs and the performance differences between the various modes of divestiture (i.e., sell-offs, spin-offs, carve-outs) (e.g., Hulburt, Miles, & Woolridge, 2002; Slovin, Sushka, & Ferraro, 1995; Vijh, 2002).

The remainder of this paper is organized as follows. In the next section, we give an overview of the IPO process and review prior research on the influence of

information asymmetries on underpricing. Based on our critical discussion of prior literature, we then develop our hypotheses regarding the influence of prior exchange relationships between issuer and underwriter on underpricing in equity carve-outs. Subsequently, we present our empirical design and discuss the results of our empirical analysis. We conclude with an outline of the study's implications, its limitations, and resulting avenues for further research.

Background and hypotheses

The IPO process and IPO underpricing

When a previously unlisted company intends to go public, it has to undergo an extensive and demanding process to become listed on a US stock exchange (Pollock, Porac & Wade, 2004). Therefore, the company hires professional advisors such as investment banks, auditors, and lawyers as assistance for preparing the initial public offering (IPO). The process of going public starts with drafting and filing a registration statement with the SEC, followed by preparing and distributing a preliminary prospectus to potential investors. This preliminary prospectus contains important information for prospective investors regarding the offering but leaves out yet to be determined details as in particular the final initial offering price and the number of shares being sold. After filing the preliminary prospectus, the top management of the prospective IPO firm and its advisors conduct a roadshow to meet with potential investors and answer their questions regarding the information in the prospectus. Meanwhile, the lead investment bank contacts potential investors to determine an initial offering price and estimate demand for the stock. Finally, shortly before the intended offering the prospective IPO company files an amendment to the preliminary prospectus revealing – among other information – the initial offering price, the amount of shares being offered, and the effective date of the offering (Daily, Certo, Dalton & Roengpitya, 2003).

As the going public process culminates in the IPO, an empirically well-documented phenomenon occurs on the first trading day of the new issue: The share price typically increases considerably (Ibbotson, 1975; Beatty & Ritter, 1986). Research has termed these rising share prices on the first day of a new issue "underpricing" since they can be interpreted as the initial offering price being set too low (Ljungqvist, 2007). Underpricing of IPOs has been consistently observed in the US as well as non-US contexts (Judge et al., 2015). Specifically, IPOs in the US were reported to be, on average, underpriced by 18.8 percent between 1980

and 2001 (Ritter & Welch, 2002). Similarly, Engelen and van Essen (2010) found an average underpricing of 21.1 percent in the US for time period 2000 to 2005. Underpricing of this magnitude is striking since it represents a discount to the fair value of a stock (Leitterstorf & Rau, 2014). For the company going public as well as its pre-IPO owners, underpricing translates to foregone proceeds in the form of "money being left on the table" (Loughran & Ritter, 2002). In contrast, investors participating in the offering profit from rising share prices on the first trading day (Krigman, Shaw & Womack, 1999). Thus, underpricing can be perceived as a wealth transfer from the company and its pre-IPO owners to the IPO investors (Ljungqvist, 2007).

Information asymmetries and IPO underpricing

The phenomenon of underpricing and its origins have been of considerable interest to both strategic management and finance scholars for many years now (see Daily, Certo, Dalton & Roengpitya, 2003; Certo, Holcomb & Holmes, 2009 for a discussion in the management literature; see Ritter & Welch, 2002; Ljungqvist, 2007 for reviews in the finance literature). One of the primary explanations for IPO underpricing in the management and finance literatures is that underpricing results from information asymmetries between the exchange partners in the IPO process (e.g., Rock, 1986; Beatty & Ritter, 1986; Welch, 1989; 1992; Loughran & Ritter 2002; 2004). In their meta-study of underpricing research in the management literature, Daily, Certo, Dalton, and Roengpitya (2003, p. 275) thus concisely state that "at the root of underpricing is information asymmetry".

Information asymmetries exist between the three key exchange partners in the IPO process: the issuer (i.e., the company going public), the underwriter (i.e., the investment bank administrating the IPO process), and the investors purchasing shares in the IPO (Ljungqvist, 2007). All explanations for IPO underpricing based on information asymmetries have in common that the degree of asymmetric information is expected to be positively related to the magnitude of underpricing (Ritter & Welch, 2002). A main argument in the literature has been that investors

face substantial information asymmetries vis-à-vis the issuing firm making it difficult to tell "high-quality offerings" apart from "low-quality offerings". To attract investors but also in order to "leave a good taste in investors' mouths so that future underwritings from the same issuer could be sold at attractive prices" (Ibbotson, 1975: 264), issuers have been argued to underprice. Research argues and shows, however, that only high-quality issuers are subsequently able to recoup the initial underpricing in the form of future issuing activities (Welch, 1989), or in the form of more favorable market reactions to later dividend announcements (Allen & Faulhaber, 1989).

For the purpose of our study and its contribution, it is critical to understand that most studies explaining underpricing with information asymmetries have focused on information asymmetries between the issuer and the investors buying the shares of the issue (e.g., Benveniste & Spindt, 1989; Benveniste & Wilhelm, 1990; Welch, 1992). Though the information asymmetries between the issuer and investors are undisputed, the focus on these two exchange partners in IPOs fails to accurately reflect how IPOs are typically processed. Major IPOs on US stock exchanges are virtually always conducted on a firm commitment basis (Dunbar, 1998; Lowry, Officer & Schwert, 2010; Jagannathan, Jirnyi & Sherman, 2010). This means that the underwriter first purchases all shares offered in the prospective IPO from the issuer and then subsequently sells them to the investor community (so called public placement) (Benveniste & Spindt, 1989; Sherman, 1992). Thus, shares are sold from the issuer to the underwriter and then passed on from there to the investors, instead of being directly sold from the issuer to the IPO investors. The prevalence of firm-commitment IPOs implies that when trying to explain the occurrence of underpricing from an information processing perspective, the extent of information asymmetries between the issuing firm and the underwriter becomes of primary interest (rather than the information asymmetries between issuer and investors). Consequently, we make information asymmetries between the issuer and the underwriter the exclusive focus of our theoretical reasoning and empirical analysis.

The second major assumption of most prior IPO research on the link between information asymmetries and underpricing has been that information advantages (disadvantages) are one-sided. Generally, the issuer is expected to be more informed about the true market potential of the new issue than the investors purchasing shares as part of the offering (Welch, 1989; Allen & Faulhaber, 1989). Assuming that an actor is universally more informed than another across all stages of the complex IPO process, however, seems overly simplistic. More realistically, actors possess informational advantages only regarding a specific aspect of the IPO, while knowing less than other actors about alternative aspects. Specifically, in the exchange between the issuer and the underwriter, the issuer likely knows more than the underwriter about the nuanced characteristics and intrinsic value of the to-be issued subsidiary (e.g., through proprietary knowledge about internal projects or non-obvious accounting practices). Though a certain amount of financial and market data is obviously provided to the underwriter to create the prospectus, the fact that the unit has been part of the multi-business firm without segment reporting provides an opaque information environment (Brauer & Wiersema, 2012)[1]. As a result of the opaque information environment, the underwriter faces informational disadvantage regarding the specific characteristics of the carved-out assets. Thus, the underwriter is likely to insist on a risk premium. This risk premium takes the form of a low offering price since an unreasonably high issue price in a firm commitment IPO means that the underwriter – whose own capital is already fully invested and tied up in the issue – faces the substantial risk of not being able to sell on the shares to public investors.

While being at an informational disadvantage regarding specific characteristics of the assets to be issued, at the same time the underwriter also very likely holds information advantages regarding market demand and chances for placing the

[1] Brauer and Wiersema (2012) argue that the opaqueness mainly results from the fact that the financial figures of the carved-out unit are consolidated in the parent firm's financial statement (Nanda & Narayanan, 1999). The lack of transparency regarding financial key indicators (i.e., operational cash flow, EBIT, sales) of the carved-out unit precludes the use of standard valuation techniques (i.e., comparable transactions analysis) to infer the fair value of the unit.

shares at a certain price in the market. Specifically, due to its much more frequent engagements in IPO processes across different industries the underwriter reasonably possesses an informational advantage with respect to actual investor demand for a particular type of asset, the type of investor most interested in the offering, and the most favorable timing of the placement (Pollock, Porac & Wade, 2004). This information advantage creates the opportunity for opportunistic behavior on part of the underwriter by greater underpricing the issue to be better able to sell shares in the offering as well as to extend favors to institutional investors which can realize short-term benefits from the allocation of underpriced shares to their portfolios (Pollock, 2004).

Influence of prior issuer-underwriter relationships on underpricing

In the preceding sections, we reviewed prior IPO literature and discussed how information asymmetries in the issuer-underwriter relationship induce underpricing. Prior discussions on underpricing of "ordinary" IPOs and equity carve-outs, however, have widely abstracted from the fact that issuer and underwriter may hold prior ties. This is particularly likely for large issuing parent firms since these firms frequently engage in other major capital market transactions (i.e., mergers and acquisitions, sell-offs) which involve investment banks as advisors. In the following, we reason that prior interactions between the issuer and the underwriter lower the level of underpricing by reducing information asymmetries and by reducing the overall inclination of the underwriter to engage in opportunistic underpricing in order not to jeopardize future relations with the large issuing parent firm.

Social exchange theory and agency theory suggest that repeat interactions between the underwriter and the issuer provide a remedy for the lack of information sharing and opportunistic behavior due to information asymmetries (Gulati, 1995; Uzzi, 1996, 1999). If two actors engage in repeat exchanges, they move over time from at arm's-length transactions to a trustful relationship (Lee, 2013). Vanneste, Puranam, and Kretschmer (2012) claim that this transition occurs because actors learn during repeat interactions whether the other is

trustworthy, they come to identify with each other, and they internalize the other's preferences. Further, Rousseau, Sitkin, Burt, and Camerer (1998, p. 395) characterize such a trustful relationship as being in "a psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behavior of another". As actors in a trustful relationship are willing to act beyond their self-interests (Dore, 1983; Uzzi, 1997), they refrain from behaving opportunistically (Uzzi, 1999).

For the IPO context, this implies that repeat interactions increase information sharing between the issuing parent firm and the underwriter. As a consequence of the less opaque information environment, the underwriter is not able to charge an excessive risk premium which would lead to significant underpricing of the issue. Moreover, the fact that repeat interactions lead to the emergence of trustful relationships, the concern for endangering future exchanges with the parent firm by excessively underpricing the issue is likely to become a central consideration for the underwriter. In the issuing process involving units or subsidiaries of large, multi-business firms this consideration figures even more prominently (Benveniste, Fu, Seguin & Yu, 2008). Large, multi-business firms represent the most important clientele for advisory companies. This is also because these large firms are the most active firms when it comes to conducting mergers and acquisitions and other forms of divestiture (i.e., sell-offs, spin-offs). Similar to IPOs, firms usually engage advisory firms to complete these portfolio transactions (Hayward, 2002, 2003). This reasoning about the concern for future exchanges is supported by Ljungqvist and Wilhem's (2005) observation that companies retain the underwriter of their IPO for subsequent seasoned equity offerings if they were satisfied with the underwriter's services during the IPO process.

In summary, we argue that prior repeated interactions between issuer and underwriter lead to reduced information asymmetries and thus lower risk premia, greater trust (accompanied with more open and better information sharing), and a heightened concern for preserving future relations, resulting in lower levels of underpricing. Thus, we hypothesize:

Hypothesis 1: The number of prior interactions between issuer and underwriter is negatively related to underpricing in equity carve-outs.

Moderating influences of offering size and IPO market environment

For establishing our main hypothesis, we argued that repeated, prior interactions between the underwriter and the issuing parent firm limit the risks for the parent firm that the underwriter opportunistically underprices the issue, resulting in an at least temporary wealth transfer from the issuing parent company to investors. Agency and social exchange theory further suggest that the likelihood to behave opportunistically in the face of information asymmetries is contingent on the "stakes" associated with the opportunistic behavior. The "stakes" refer to the benefits of the opportunistic actor as well as to the costs for the deprived exchange partner. Agency theory further predicts that monitoring efforts of an actor depend on its stake in a transaction; the smaller it is, the less effort the actor will display (Arthurs, Hoskisson, Busenitz & Johnson, 2008). Because monitoring is generally costly since it requires directed effort and thus the commitment of resources (Williamson, 1987). Hence, actors need to have sufficient incentive to exert monitoring (Maug, 1998). In line with this argument from agency theory, Ljungqvist and Wilhelm (2003) observe that IPO underpricing is negatively related to the pre-IPO share ownership of inside directors and officers in the company going public since these actors closely monitor underwriters' pricing behavior to protect the value of their stakes.

Since managerial attention to exert monitoring is valuable and limited (D'Aveni & MacMillan, 1990), corporate managers of the issuing parent company are likely to direct particular high levels of attention to equity carve-outs of significant importance. Importance to the parent company in turn is largely determined by the size of the equity carve-out relative to the size of the parent firm. Aside from the greater strategic importance which is commonly associated with units of larger size, greater attention allocation can be assumed simply because the absolute foregone proceeds for the parent firm resulting from underpricing are dramatically higher for larger offerings (Vijh, 2002). Instead of just relying on better

knowledge about and familiarity with the underwriter because of repeated, prior exchanges, in context of very large offerings the issuing parent company is likely to complement friendly regular exchanges with monitoring efforts to ensure sufficient returns from the IPO.

Given the expected greater monitoring effort by the issuing parent in the context of large offerings, the underwriter also runs a greater risk when opportunistically underpricing an equity carve-out. As outlined above, underwriters honor trustful relationships with a parent company to ensure their continued engagement as advisors in future deals by the parent company. Thus, we expect underwriters with ties to the parent company to increasingly refrain from opportunistic underpricing the larger the relative offering size. The bonds between the underwriter and the issuing parent company are also likely to be considerably strengthened when a "mega" IPO is successfully staged by the underwriter. Breaches of trusts in large transactions on the other hand are likely to resonate very negatively for the future (Rousseau, Sitkin, Burt, & Camerer, 1998).

In summary, we hypothesize that relative offering size strengthens the influence of prior parent company-underwriter interactions on underpricing. With increasing relative offering size parent companies are expected to increasingly use their ties to underwriters for monitoring their price setting, while underwriters are expected to become even more reluctant to jeopardize the trustful relationship by opportunistically underpricing an offering.

Hypothesis 2: Relative offering size positively moderates the relationship between the number of prior issuer-underwriter interactions and equity carve-out underpricing.

IPO market environment

Agency and social exchange theory suggest that the likelihood to behave opportunistically in the face of information asymmetries is contingent not only on the "stakes" but also on the risk of detection as well as the opportunity to "hide" or cover up opportunistic behavior (Jensen & Meckling, 1976). Both the ability

of the underwriter to conceal its opportunistic underpricing of the issue as well as the ability of the parent firm to detect opportunistic underpricing is dependent on the reference points available to the issuing parent firm. Concurrent market activity – in particular the average level of underpricing in the IPO market - provides for the most likely reference point.

Prior research has shown that IPO markets exhibit severe cyclicality with respect to average underpricing and total market volume (Ljungqvist, 2007). For instance, Loughran and Ritter (2004) find an average underpricing of 65 percent during the "internet bubble" of 1999 to 2000 compared to only 15 percent for the remaining years of the 1990s prior to the bubble. Equity carve-outs display a similar pattern with Hogan and Olson (2004) reporting 48 and 9 percent for the aforementioned periods. Ritter (1984) labels patterns of high average first day returns to new equity offerings as "hot issue markets". Behavioral IPO research argues that underpricing during periods of "hot issue markets" is predominantly driven by overoptimistic investors (Ljungqvist, Nanda & Singh, 2006). Derrien (2005) finds empirical support for the notion of overoptimistic behavior by investors during time periods of frequent IPO activity by observing that bullish noise traders bid up prices during those periods. Relatedly, Dorn (2009) finds that retail investors in IPOs overpay after periods of high average IPO underpricing. Interestingly, Ritter (1991) reports that the IPOs with the highest underpricing exhibit the worst long-term performance.

Important for our purposes, the average level of underpricing in the IPO market is likely to impact on the nature of the relationship between prior issuer-underwriter interactions and underpricing. We argued that prior interactions decrease the likelihood to engage in opportunistic behavior due to greater mutual trust and the increased interest in preserving relations. The effectiveness of prior exchanges in limiting opportunistic behavior is further increased in environments of low average underpricing because it becomes easier for the trusting partner – in this case the issuer – to detect whether the underwriter misuses this trust. Also in times of fewer IPO market activity and lower levels of underpricing,

underwriters can be expected to have considerably greater discretion over the degree of underpricing due to their pivotal role in the going public process and their knowledge about the "fair market value" of a new issue (Baron, 1982). Not only the issuer but also the underwriter are aware of this greater detection risks. The issue that prior interactions increase the downside of breaking up these established ties paired with the greater risk of detection thus make underpricing less likely in low underpricing IPO environments.

In high underpricing IPO environments, on the other hand, prior interactions are likely to be less effective in leading to significantly lower levels of underpricing for the focal IPO. This is due to the fact that market dynamics overpower the strength of the established ties between issuer and underwriter. Even if the underwriter means well, and likes to serve its client in the best possible way, investor demand for considerable underpricing of the issue leaves the underwriter with no option than to assure placement by also opting for a significant underpricing of the focal issue. The underwriter is also likely to find less fault with significantly underpricing the issue given the general market dynamics. Also when underpricing seems predominantly the result of market herding behavior rather than deliberate underwriter opportunistic behavior, trust between the parent and underwriter to maintain cooperation in future transactions remains untarnished by underpricing.

In sum, we thus expect prior interactions between the issuing parent firm and the underwriter to have greater influence on underpricing during market periods characterized by low average underpricing than during "hot issue periods" characterized by high average underpricing. Consequently, we hypothesize:

Hypothesis 3: The average level of underpricing in the IPO market negatively moderates the relationship between prior issuer-underwriter interactions and equity carve-out underpricing.

Methods

Sample and data collection

For our empirical analysis, we draw on the new issues database of the Securities Data Corporation (SDC) and collect data on equity carve-outs that occurred on the New York Stock Exchange (NYSE), the American Stock Exchange (Amex), and the NASDAQ between 1990 and 2010. To ensure sufficient data availability and reliability, we only consider equity carve-outs which have been completed by parent companies which are publicly traded on one of the aforementioned US stock exchanges. In addition, we eliminate multiple filings, which typically occur in the SDC database when an issue is sold both in the US and another country (Ghosh, Petrova, Feng & Pattanapanchai, 2012). We furthermore eliminate offerings other than public issues of common stock as for example stocks with warrants to rule out price distortions from the attached derivatives (Hogan & Olson, 2004). Our final sample includes 202 equity carve-outs.

We obtain data on acquisitions and divestitures from the Thomson ONE database. Accounting and financial market data are retrieved from Worldscope. Data on underwriter reputation and IPO market volume stem from Ritter's IPO database[2], which provides updated data from Loughran and Ritter (2002, 2004).

Dependent variable

Underpricing. Underpricing is the first day trading return of a new issue (in percent). Following broad consensus in prior research (e.g., Ritter & Welch, 2002; Pollock, 2004; Ljungqvist, 2007; Arthurs, Hoskisson, Busenitz& Johnson, 2008; Certo, Holcomb & Holmes, 2009), underpricing is calculated as the first-day closing price minus the initial offer price, divided by the initial offer price. We multiply this score with 100 to generate a percentage value.

[2] http://bear.warrington.ufl.edu/ritter/ipodata.htm

Explanatory variables

Number of prior parent-underwriter interactions. To assess the extent of prior interactions between the parent company and the underwriter, we use the number of all business portfolio related transactions (i.e., acquisitions, divestitures) of the parent firm in which the underwriter of the focal equity carve-out acted as a lead advisor to the parent firm. From the perspective of the parent firm, acquisitions and divestitures are of key long-term strategic importance. As such, they receive considerable top management attention. According to Lee (2013), the firm's management tends to keep the same advisor for these deals. Hence, a close group of key people at both the parent firm and the underwriter frequently interact when planning acquisitions and divestitures. Consequently, these transactions are likely to contribute to the development of a trustful relationship. Following Arthurs, Hoskisson, Busenitz, and Johnson (2008), we count these deals over the last three years prior to the focal equity carve-out. For robustness purposes, we also used several alternative operationalizations to assess the frequency of prior underwriter-parent firm exchanges. First, we counted the number of prior deals over a five-year period instead of three years. Second, we used the log of the total number of ties over three as well as five years. Last, we construct dummy variables (coded 1 if ties exist, 0 otherwise) for both the three- and five-year period.

Relative offering size. Following prior research (Ghosh, Petrova, Feng, and Pattanapanchai (2012)), we use relative offering size to assess the importance of the issue for the parent company. We calculate relative offering size as the ratio of total offering size divided by the total assets of the parent company at the end of the quarter preceding the equity carve-out. Since prior research (e.g., Allen and McConnell, 1998; Vijh, 2002) found a direct positive influence of relative offering size on the parent company's stock when announcing the equity carve-out, we also use relative offering size as a standard control variable.

IPO environment. Previous research observed that both the total number of offerings as well as average underpricing are affected by market cyclicity

(Loughran & Ritter, 2004; Hogan & Olson, 2004; Ghosh, Petrova, Feng & Pattanapanchai, 2012). In "hot issue markets" characterized by a large number of offerings, average underpricing has been found to be high while periods with few offerings have been found to be associated with significantly lower average underpricing. Therefore, we use the average level of underpricing of all IPOs in the US in the twelve months preceding the focal equity carve-out to account for the condition IPO market environment.

Control variables

We include two major sets of control variables in our regression models. The first set of controls captures characteristics of the issuing parent company, while the second set of controls accounts for deal characteristics which have been argued and found to affect underpricing.

Parent firm performance. Equity carve-outs motivated by poor parent firm financial performance have been found to receive a different market reaction than offerings by financially well performing firms (Allen & McConnell, 1998). Following Allen and McConnell (1998), we assess *parent firm financial performance using both an accounting and market-based performance measure. Firm accounting performance* is assessed using the parent firm's return on assets (ROA) in the year prior to the equity carve-out. Return on assets is calculated as earnings before interest and taxes (EBIT in the year preceding the carve-out) divided by total assets at the end of the quarter preceding the equity carve-out. For parent firm market performance, we use the market-to-book ratio which is the parent company's market value of common equity divided by the book value of common equity measured at the last quarter preceding the offering.

Parent firm size. Larger companies have been argued to be perceived as less risky for investors (Daily, Certo, Dalton & Roengpitya, 2003). In line with prior IPO research, we use the *parent firm's market capitalization* (in billions of dollars) at the announcement of the equity carve-out as a proxy for parent firm size.

The second set of controls refers to deal characteristics.

Underwriter prestige. Theoretical predictions as well as empirical results for the influence of underwriter prestige on equity carve-out underpricing are ambiguous, with studies reporting a negative (Prezas, Tarimcilar & Vasudevan, 2000; Thompson, 2010), positive (Hogan & Olson, 2004), or no influence (Ghosh, Petrova, Feng & Pattanapanchai, 2012). To assess underwriter prestige we draw on Loughran and Ritter's (2004) revised version of Carter and Manaster's (1990) underwriter ranking. This ranking assigns values ranging from 1.1 (least prestigious) to 9.1 (most prestigious) to each underwriter based on their relative order in Tombstone advertisement announcing offerings. According to this ranking procedure, underwriters with scores above 8 are considered as prestigious. Following Hogan and Olson (2004), we use an *underwriter prestige* dummy variable that equals 1 if the focal equity carve-out's underwriter is prestigious, and 0 otherwise.

Share overhang. Furthermore, we include *share overhang* as a measure of ownership dilution. Following Bradley and Jordan (2002), we calculate share overhang as the ratio of shares retained by the pre-IPO owners to the shares issued for sale in the IPO (i.e., the public float). In an equity carve-out, the parent company is virtually always the exclusive pre-IPO owner. Since underpricing only affects the shares actually sold in the offering, higher share overhang alleviates the adverse effects of underpricing for pre-IPO owners (Loughran & Ritter, 2004). Thus, as expected Hogan and Olson (2004) as well as Ghosh, Petrova, Feng, and Pattanapanchai (2012) report a positive relationship between share overhang and underpricing.

Fraction of parent firm carved-out. Following Schipper and Smith (1986), we control for the *fraction carved-out* by measuring the percentage of the parent firm's assets being carved-out and established as a separate entity.

Share offer price. Prior research argued that a low offer price per share (in US dollars) is more likely to fluctuate and thus constitutes a proxy for uncertainty

(Booth and Chua, 1996; Prezas, Tarimcilar & Vasudevan, 2000). Consequently, we expect the share offer price to be negatively related to underpricing.

Use of proceeds. Following Benveniste, Fu, Seguin & Yu (2008), we control for the use of proceeds of the issuance since different motivations by a parent firm for carving-out a former subsidiary could receive different reactions and thus first day returns by investors. Use of proceeds is coded 1 if the proceeds from the equity carve-out are used for investment and operational improvements, and 0 otherwise.

Relatedness of carved-out unit. We further follow Benveniste et al. (2008) and include a dummy variable for the relatedness of the carved out unit. Carve-outs unrelated to the parent firm's primary industry have a different risk profile than related offerings and thus might experience differing investor reactions. The equity carve-out is perceived as related if the parent company and the subsidiary being carved-out share the same first two-digit SIC code.

Industry background of carved-out unit. Offerings involving units from high-technology industries have been reported to be more severely underpriced due to the frequently highly speculative nature of the business model (Loughran & Ritter, 2004; Hogan & Olson, 2004). The higher underpricing has been explained by the greater risks associated with high-technology firms. We employ Field and Hanka's (2001) classification scheme for high-technology industries and label an IPO as coming from a high-technology industry background if the issuing unit's first three-digit SIC codes are 357, 367, 369, 382, 384, or 737.

Year dummies. We also use year dummies to control for the effect of different time periods on underpricing.

Results

Descriptive statistics

Table 1 (see appendix) displays descriptive statistics including the means, standard deviations, and correlations for all variables used in our regression models. To test for multicollinearity among our variables, we compute the variation inflation factors (VIFs). With all VIFs below 2 and thus the commonly accepted threshold of 10 (Neter, Wasserman & Kutner, 1985), we believe multicollinearity is not a major issue in our analysis. The equity carve-outs in our study experience an average underpricing of roughly 18 percent for the time period from 1990 to 2010. This level of underpricing corresponds well with the findings by Ghosh, Petrova, Feng, and Pattanapanchai (2012) who also report an average level of underpricing of 18 percent in their study of equity carve-outs completed between 1985 and 2010. Similarly, Thompson (2010) finds an average underpricing of 19 percent for the same period of 1988 to 2006. Descriptive analysis of our empirical data further reveals that, on average, parent companies engage with the same underwriter in roughly five major capital market transactions in the three years prior to the focal equity carve-out. This finding also aligns with prior research on firm-advisory relationships which has suggested that firms and advisory companies often build up persisting ties (Lee, 2013).

Hypotheses testing

To test our hypotheses, we employ ordinary least squared (OLS) regression analysis. Table 2 (see appendix) provides the results of our successive linear regressions. All models include underpricing as the dependent variable. Following Aiken and West (1991), we mean-center the independent and moderator variables prior to calculating the interaction terms to facilitate interpretation of the interaction terms. In addition, we plot graphs for the interaction results to ensure correct interpretation.

Model 1 of Table 2 includes the control variables. We observe parent firm market performance, parent firm size, share overhang, and industry background of carved-out unit to be positively related to underpricing. These findings are consistent with our theoretical predictions as well as the empirical findings of prior literature (Loughran & Ritter, 2004; Hogan & Olson, 2004; Ghosh, Petrova, Feng & Pattanapanchai, 2012).

Hypothesis 1 proposed a negative relationship between the number of prior parent-underwriter interactions and equity carve-out underpricing. As shown in Model 2, the number of prior parent-underwriter interactions variable is found to have a negative and significant relationship with underpricing ($b = -0.75$; $p < 0.05$). Hypothesis 1 thus finds support.

Hypothesis 2 predicted that relative offering size positively moderates the prior interactions-underpricing relationship. Model 3 shows that the interaction between number of prior parent-underwriter interactions and relative offering size is negative and marginally significant ($b = -6.89$; $p < 0.1$). Hypothesis 2 is thus supported by our empirical data. Figure 1 offers a graphical illustration of the effect. As indicated by the differences in slopes, it shows that prior interactions between issuing parent company and underwriter have a stronger effect on underpricing when the offering size and thus its importance are high. Interestingly, Figure 1 (see appendix) also highlights that for issuing parent companies with a relatively high number of prior interactions with the underwriter a large relative offering size (i.e., one standard deviation above the mean) leads

to an overpricing rather than an underpricing of the issue. While this overpricing maximizes proceeds from the equity carve-out for the issuing parent company, it also disappoints investors participating in the offering and thus is potentially associated with reputational damages for the issuing parent company as well as the underwriter in the investor community.

Finally, Hypothesis 3 suggested that the average level of underpricing in the IPO market negatively moderates the prior interactions-underpricing relationship. The respective interaction term in Model 4 is found to be positive and significant ($b = 0.04$; $p < 0.01$). This leads us to accept Hypothesis 3. Figure 2 (see appendix) illustrates that a large number of prior interactions are associated with lower underpricing during times of below average market underpricing. Surprisingly, underpricing is higher in carve-outs with a high number of prior interactions than in offerings with a low number of prior interactions during times of above average market underpricing. This finding, however, can be explained by the fact that periods of high average underpricing are also characterized by a high number of mergers and acquisitions as well as divestitures. Thus, parent companies pursuing lots of deals during hot markets accumulate a high number of prior interactions. Consequently, carve-outs with a high number of prior parent-underwriter interactions are more likely to take place during times of high average underpricing. The significant positive correlation ($r = 0.13$; $p < 0.10$; cf. Table 1) between prior interactions and average underpricing supports this explanation. This selection effect also strengthens our observation that prior parent-underwriter interactions reduce underpricing since there is a systematic bias against observing this relationship.

Model 5 constitutes the full model including both interaction terms. The positive moderating effect of relative offering size on our main relationship is found to become slightly more significant ($b = -8.65$, $p < 0.05$), while the negative moderating influence of average underpricing is found to be highly consistent both in terms of effect size and significance ($b = 0.04$, $p < 0.01$). The results of

the full model thus provide additional support for Hypotheses 2 and 3, and the reliability of our empirical results.

Discussion and conclusion

In prior IPO research, information asymmetries between underwriter and investors have been argued to explain levels of underpricing. The given study qualifies and extends prior IPO research by directing attention to the fact that the most important information asymmetry which has been neglected by prior IPO research is between the *issuing firm* and the *underwriter*. This is because by far the largest fraction of IPOs is conducted on a firm commitment basis. The firm commitment structure involves that the underwriter first purchases all shares offered in the prospective IPO from the issuer and then subsequently sells them to the investor community (so called public placement) (Benveniste & Spindt, 1989; Sherman, 1992). Thus, shares are sold from the issuer to the underwriter and then passed on from there to the investors, instead of being directly sold from the issuer to the IPO investors.

The novel focus on information asymmetries between the issuer and the underwriter then leads us to analyze the influence of the number of prior interactions between parent companies and underwriters on underpricing. This focus is motivated by the dominant proposition in social exchange theory and agency theory that the frequency of interactions between exchange partners helps build trust and thus is an effective means to diminish the negative side-effects associated with information asymmetries. In line with the predictions of social exchange theory and agency theory, we find that frequent, prior interactions between the issuing parent company and the underwriter are associated with lower underpricing, and thus help the parent company to increase its proceeds from the offering.

Agency and social exchange theory further suggest that the likelihood to behave opportunistically in the face of information asymmetries is contingent on the "stakes" as well as on the opportunity to "hide" or cover up opportunistic behavior (Jensen & Meckling, 1976). We therefore further examined how the offering size as well as the general IPO environment – in terms of average IPO underpricing – influence our main relationship. Regarding the moderating influence of offering

size, we observe that the underpricing-reducing effect of prior parent firm-underwriter exchanges is more pronounced in carve-outs involving relatively large units. This is consistent with insights derived from social exchanges theory that opportunistic underpricing by the underwriter increasingly damages the future relationship of the two actors as the offering becomes more important to the parent company. Furthermore, this finding is consistent with the prediction of agency theory that the monitoring intensity of an actor is a function of its incentives to compensate for the costs associated with monitoring efforts.

Regarding the moderating influence of the general IPO environment, we find that prior parent-underwriter exchanges have a dampening effect on underpricing during periods of low average underpricing in the IPO market. In IPO environments characterized by low levels of underpricing, the engagement of an underwriter with whom corporate managers of the issuing parent firms have had multiple, prior exchanges seems helpful in increasing returns for the parent company. More importantly, this empirical finding also suggests that contexts in which the likelihood to detect breaches of trust becomes greater increase the effectiveness of prior exchanges in limiting opportunistic behavior. Interestingly, however, empirical results for IPO environments characterized by high levels of underpricing indicate that the frequency of prior exchanges no longer helps reduce the level of underpricing. Conversely, our findings show that in "hot issue markets" the equity carve-outs backed by frequently engaging exchange partners are associated with significantly higher levels of underpricing. This unexpected effect may suggest that underwriters are unable to protect the interests of the issuing parent in hot issue markets because the competition by alternative stock placements is too extensive. An alternative interpretation is suggested by research on the influence of industry waves on a firm's stock market performance (e.g., Carow, Heron & Saxton, 2004; McNamara, Haleblian & Dykes, 2008). Investors have been argued to discount capital market transactions which occur at the peak of waves (e.g., McNamara et al., 2008; Brauer & Wiersema, 2012). Similarly, one could argue that offer prices are discounted in hot issue markets so that underwriters become rather price takers instead of price makers.

Theoretical and practical contributions

With our study on the influence of prior issuing parent firm-underwriter relationship on underpricing, we contribute to several streams of research. First, we clarify the role of information asymmetries among key actors in the IPO process. With the notable exception of one of the earliest papers on underpricing (Baron, 1982), previous research focused on information asymmetries between the issuer and the investors participating in an IPO (cf. Ritter & Welch, 2002). We refine this perspective by stressing that due to the mechanisms of firm commitment offerings, the underwriter puts its own capital at risk by purchasing the offering from the issuer before passing it on to the investors instead of merely brokering the offering as an advisory agent for both issuer and investors. Consequently, the primary pricing conflict is directly between issuer and underwriter rather than between issuer and investors.

Second, our study identifies prior interactions between the parent firm and the underwriter as a determinant of the level of underpricing in equity carve-outs. Prior research predominantly focused only on characteristics of the issue (Hogan & Olson, 2004; Ghosh, Petrova, Feng & Pattanapanchai, 2012) or the parent firm (Benveniste, Fu, Seguin & Yu, 2008) to explain the degree of underpricing. We extend this research by taking a relational perspective suggesting the issuing parent firm-underwriter relationship as an important determinant of underpricing in equity carve-outs. Our findings also shed new light on the hitherto open question in prior research on whether equity carve-outs are less severely underpriced than comparable standard IPOs (Prezas, Tarimcilar &Vasudevan, 2000; Hogan &Olson, 2004) or exhibit similar degrees of underpricing (Schipper & Smith, 1986). Although we do not empirically compare equity carve-outs to a matched sample of IPOs, our results indicate that only equity carve-outs where parent companies have an exchange history with the focal underwriter exhibit lower underpricing than standard IPOs.

Third, we contribute to management research analyzing IPOs from a deal network perspective. Pollock, Porac, and Wade (2004) depict IPOs as a deal network

configured by the underwriter as the central agent connecting several key and peripheral factions. Arthurs, Hoskisson, Busenitz, and Johnson (2008) argue that the IPO deal network is prone to multiple principal-agent as well as principal-principal conflicts. The authors observe that underwriters enable venture capital funds they had already conducted offerings with prior to the focal IPO to easier dispose of their stake in an IPO by setting a low initial offering price. Relatedly, Pollock (2004) reports that underwriters extend favors to institutional investors they share embedded relationships with by underpricing an IPO to enable these investors to profit from rising share price on the first trading day of the new issue. Our observation that underwriters accommodate parent companies' preference of lower underpricing in case the two actors share a trustful relationship based on prior joint transactions fits aforementioned authors' results, but renders an important extension: Like underwriters, venture capital funds as well as institutional investors prefer higher underpricing. In contrast, parent companies' favor limited underpricing and thus display conflicting preferences with underwriters regarding IPO pricing. Thus, our findings provide stronger evidence of the importance of ties between underwriters and an actor since underwriters are willing to honor a trustful relationship in the focal offering even against their own financial interests.

Fourth, we identify ties to an underwriter based on prior joint transactions as a valuable resource that a parent company provides to its subsidiaries. This yields important implications for research on divestiture success – in particular studies which have been interested in explaining differences in returns across various divestiture modes (i.e., sell-offs, spin-offs, equity carve-outs).

Limitations of this study and avenues for future research

Like any research, our study is not without limitations. First, we did not address outcomes relevant for a parent company in an equity carve-out other than underpricing. Besides limiting underpricing, however, a parent company might also want to use its relationship with an underwriter to achieve a specific post-IPO ownership structure (Zingales, 1995; Booth & Chua, 1996), influence long-

term performance (Vijh, 1999), or to improve the odds for survival of the new issue as a standalone company (Hensler, Rutherford & Springer, 1997). Assessing these alternative outcomes as well as identifying potential trade-offs among these priorities appears a promising avenue for future research.

Second, we analyzed the relationship between the parent company and the underwriter in isolation of connections to other actors of the IPO process. As elaborated on in the preceding section, IPOs are a deal network comprising other influential factions as for example investors as well as various peripheral factions (Pollock, Porac & Wade, 2004). Although we feel that the issuer-underwriter relationship is most influential when explaining underpricing based on information asymmetries due to its crucial role in the pricing of an IPO, future research could extend our study by including additional relationships to come up with a more comprehensive picture of how the level of underpricing is the result of an interplay among the various relationships of the deal network.

Finally, we assume in our study that parent companies prefer lower underpricing to maximize the proceeds from the offering. When analyzing moderator effects, we found that repeated prior parent-underwriter interactions result in IPO overpricing (i.e., declining share prices on the first trading day) for very large offerings. Although this maximizes proceeds for the parent company, it also has the potential to create negative repercussions from investors for both the underwriter and the parent company. Since investors participating in the offering experience a loss from declining share prices on the first trading day, they might be unwilling to participate in future offerings of the parent company or the underwriter (Beatty & Ritter, 1986). Thus, apart from maximizing proceeds from the offering parent companies also need to concede just enough underpricing to ensure continued participation of investors in future offerings. Balancing the wish to maximize offering proceeds with the necessity to prevent reputational damage, poses the question of an optimal level of underpricing for future research.

In conclusion, we thus believe that the phenomenon of IPO underpricing remains an intriguing research topic for years to come. With our work, we mean to direct

attention to the importance of information asymmetries between issuer and underwriter, and how repeated prior interactions may generate trust and thus help to diminish the negative effects of information asymmetries in IPO transactions. Thereby, we hope to add another piece to the complex puzzle of underpricing.

Table 1

Means, standard deviations, and correlations[a]

	Mean	s.d.	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Underpricing	17.66	45.27													
2. Number of prior parent-underwriter interactions	4.72	9.99	.10												
3. Relative offering size	0.11	0.14	-.06	-.12											
4. IPO environment	22.54	18.41	.32	.13	-.05										
5. Parent firm accounting performance	1.20	29.38	-.16	-.03	-.09	-.20									
6. Parent market performance	2.87	4.85	.45	.19	.00	.17	-.17								
7. Parent firm size	15.00	55.41	.30	.60	-.16	.18	.08	.19							
8. Underwriter prestige	0.80	0.40	.06	.15	-.25	.10	.03	.11	.12						
9. Share overhang	3.34	1.73	.29	.06	-.16	.10	.09	.17	.12	.14					
10. Fraction of parent firm carved-out	35.64	23.18	-.22	.22	.03	-.20	.04	-.08	.07	-.10	-.35				
11. Share offer price	16.09	7.46	-.06	.15	-.12	.03	.14	.03	.13	.40	.04	.06			
12. Use of proceeds	0.04	0.21	.01	.02	.02	.09	.02	.00	-.02	.11	.08	-.08	.18		
13. Relatedness of carved-out unit	0.32	0.47	.05	-.04	.05	-.02	.01	.11	-.12	-.04	-.02	.06	.11	.06	
14. Industry background of carved-out unit	0.39	0.49	.29	.03	.08	.24	-.13	.14	.05	-.01	.18	-.26	-.08	.07	.29

[a] N = 202. Values greater than .14 are significant at $p < .05$.

Table 2

Results of OLS regression analysis[a]

Dependent Variable: Underpricing	Model 1		Model 2		Model 3		Model 4		Model 5	
Relative offering size	-2.38	(19.38)	-4.25	(19.21)	-14.13	(19.92)	-9.84	(18.97)	-22.92	(19.67)
IPO environment	0.21	(0.84)	-0.04	(0.84)	-0.30	(0.85)	-0.27	(0.83)	-0.63	(0.84)
Parent firm accounting performance	-0.16†	(0.10)	-0.18†	(0.10)	-0.20*	(0.10)	-0.19*	(0.09)	-0.20*	(0.09)
Parent firm market performance	3.21***	(0.60)	3.30***	(0.59)	3.38***	(0.60)	3.26***	(0.58)	3.36***	(0.58)
Parent firm size	0.00**	(0.00)	0.00***	(0.00)	0.00***	(0.00)	0.00**	(0.00)	0.00*	(0.00)
Underwriter prestige	0.20	(7.64)	1.57	(7.60)	2.56	(7.57)	1.15	(7.46)	2.36	(7.40)
Share overhang	4.64**	(1.72)	4.66**	(1.71)	4.57**	(1.70)	4.19*	(1.68)	4.02*	(1.67)
Fraction of parent firm carved-out	-0.12	(0.13)	-0.04	(0.14)	-0.07	(0.14)	-0.01	(0.13)	-0.04	(0.13)
Share offer price	-0.42	(0.42)	-0.43	(0.42)	-0.34	(0.42)	-0.38	(0.41)	-0.26	(0.41)
Use of proceeds	-9.07	(13.84)	-9.19	(13.70)	-9.56	(13.62)	-8.05	(13.46)	-8.37	(13.31)
Relatedness of carved-out unit	5.72	(5.82)	6.07	(5.77)	6.98	(5.76)	3.63	(5.73)	4.48	(5.68)
Industry background of carved-out unit	17.15**	(6.01)	17.15**	(5.95)	17.25**	(5.91)	17.40**	(5.84)	17.56**	(5.78)
Number of prior parent-underwriter interactions			-0.75*	(0.36)	-1.21**	(0.44)	-0.70*	(0.35)	-1.26**	(0.43)
Number of prior parent-underwriter interactions x relative offering size					-6.89†	(3.97)			-8.65*	(3.92)
Number of prior parent-underwriter interactions x average underpricing							0.04**	(0.01)	0.04**	(0.01)
R^2	0.45		0.46		0.47		0.48		0.50	
Adjusted R^2	0.35		0.36		0.37		0.39		0.40	
F	4.63***		4.71***		4.72***		4.97***		5.07***	
ΔR^2			0.01*		0.01†		0.02**		0.04**	

[a] N = 202. Unstandardized regression coefficients are reported with standard errors in parentheses. Year dummies are included in all models, but not reported due to space limitations.

† $p < .10$
* $p < .05$
** $p < .01$
*** $p < .001$

Figure 1

Moderating effect of relative offering size on the relationship between number of prior parent-underwriter interactions and underpricing

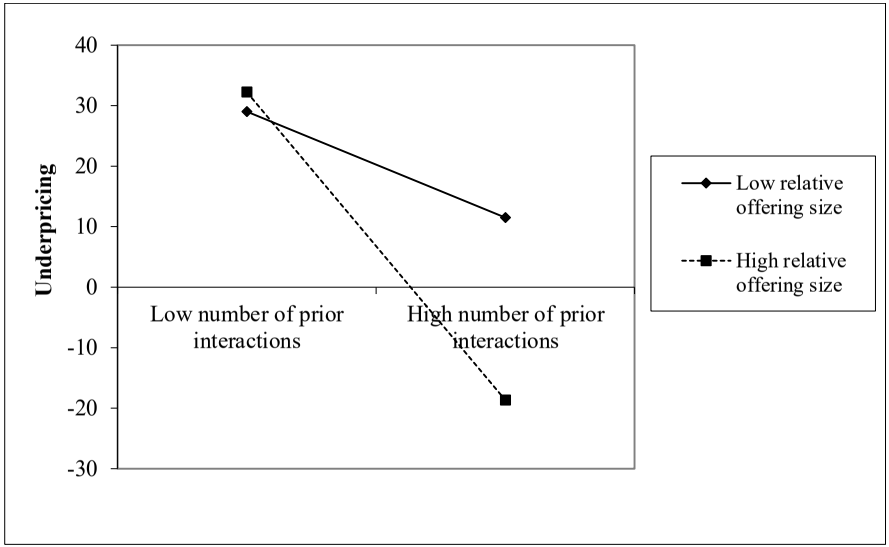
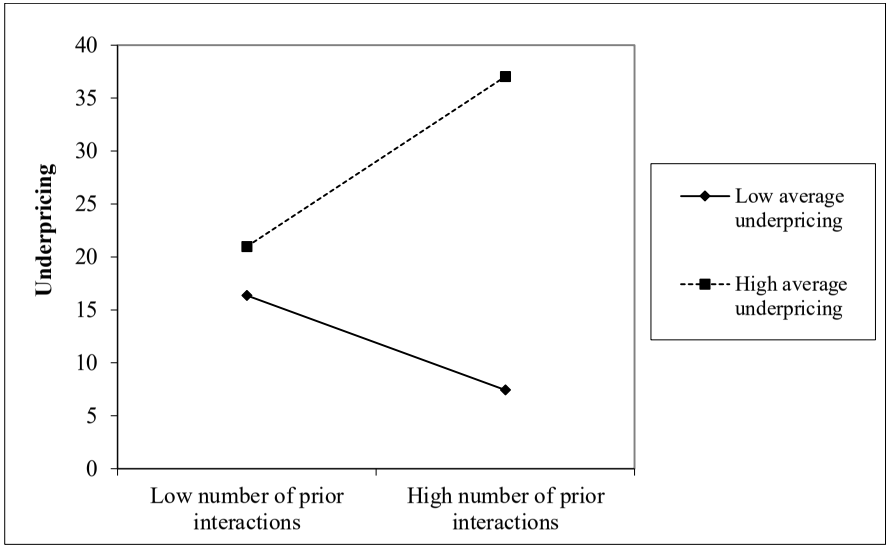


Figure 2

Moderating effect of average underpricing on the relationship between number of prior parent-underwriter interactions and underpricing



References

Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*: Sage.

Allen, F., & Faulhaber, G. R. (1989). Signaling by underpricing in the IPO market. *Journal of Financial Economics, 23*(2), 303-323.

Allen, J. W., & McConnell, J. J. (1998). Equity carve-outs and managerial discretion. *Journal of Finance, 53*(1), 163-186.

Arthurs, J. D., Hoskisson, R. E., Busenitz, L. W., & Johnson, R. A. (2008). Managerial agents watching other agents: Multiple agency conflicts regarding underpricing in IPO firms. *Academy of Management Journal, 51*(2), 277-294.

Baron, D. P. (1982). A model of the demand for investment banking advising and distribution services for new issues. *The Journal of Finance, 37*(4), 955-976.

Beatty, R. P., & Ritter, J. R. (1986). Investment banking, reputation, and the underpricing of initial public offerings. *Journal of Financial Economics, 15*(1-2), 213-232.

Benveniste, L. M., Fu, H. J., Seguin, P. J., & Yu, X. Y. (2008). On the anticipation of IPO underpricing: Evidence from equity carve-outs. *Journal of Corporate Finance, 14*(5), 614-629.

Benveniste, L. M., & Spindt, P. A. (1989). How investment bankers determine the offer price and allocation of new issues. *Journal of Financial Economics, 24*(2), 343-361.

Benveniste, L. M., & Wilhelm, W. J. (1990). A comparative analysis of IPO proceeds under alternative regulatory environments. *Journal of Financial Economics, 28*(1-2), 173-207.

Booth, J. R., & Chua, L. (1996). Ownership dispersion, costly information, and IPO underpricing. *Journal of Financial Economics, 41*(2), 291-310.

Bradley, D. J., & Jordan, B. D. (2002). Partial adjustment to public information and IPO underpricing. *Journal of Financial and Quantitative Analysis, 37*(4), 595-616.

Brauer, M. (2006). What have we acquired and what should we acquire in divestiture research? A review and research agenda. *Journal of Management, 32*(6), 751-785.

Brauer, M. F., & Wiersema, M. F. (2012). Industry divestiture waves: How a firm's position influences investor returns. *Academy of Management Journal, 55*(6), 1472-1492.

Carow, K., Heron, R., & Saxton, T. (2004). Do early birds get the returns? An empirical investigation of early-mover advantages in acquisitions. *Strategic Management Journal, 25*(6), 563-585.

Carter, R., & Manaster, S. (1990). Initial public offerings and underwriter reputation. *The Journal of Finance, 45*(4), 1045-1067.

Certo, S. T., Holcomb, T. R., & Holmes, R. M. (2009). IPO Research in Management and Entrepreneurship: Moving the Agenda Forward. *Journal of Management, 35*(6), 1340-1378.

Daily, C. M., Certo, S. T., Dalton, D. R., & Roengpitya, R. (2003). IPO underpricing: A meta-analysis and research synthesis. *Entrepreneurship Theory and Practice, 27*(3), 271-295.

Datar, S., & Alles, M. (1999). The Formation and Role of Reputation and Litigation in the Auditor–Manager Relationship. *Journal of Accounting, Auditing & Finance, 14*(4), 401-428.

D'Aveni, R. A., & MacMillan, I. C. (1990). Crisis and the content of managerial communications: A study of the focus of attention of top managers in surviving and failing firms. *Administrative Science Quarterly*, 634-657.

Derrien, F. (2005). IPO pricing in "hot" market conditions: Who leaves money on the table? *Journal of Finance, 60*(1), 487-521.

Dore, R. (1983). Miti and the Japanese miracle – The growth of industrial-policy, 1925-1975 – Johnson, C. *Business History, 25*(3), 338-340.

Dorn, D. (2009). Does Sentiment Drive the Retail Demand for IPOs? *Journal of Financial and Quantitative Analysis, 44*(1), 85-108.

Dunbar, C. G. (1998). The choice between firm-commitment and best-efforts offering methods in IPOs: The effect of unsuccessful offers. *Journal of Financial Intermediation, 7*(1), 60-90.

Engelen, P. J., & van Essen, M. (2010). Underpricing of IPOs: Firm-, issue- and country-specific characteristics. *Journal of Banking & Finance, 34*(8), 1958-1969.

Field, L. C., & Hanka, G. (2001). The expiration of IPO share lockups. *Journal of Finance, 56*(2), 471-500.

Ghosh, C., Petrova, M., Feng, Z. L., & Pattanapanchai, M. (2012). Does IPO Pricing Reflect Public Information? New Insights from Equity Carve-Outs. *Financial Management, 41*(1), 1-33.

Gulati, R. (1995). Does familiarity breed trust – The implications of repeated ties for contractual choice in alliances. *Academy of Management Journal, 38*(1), 85-112.

Hayward, M. L. (2002). When do firms learn from their acquisition experience? Evidence from 1990 to 1995. *Strategic Management Journal, 23*(1), 21-39.

Hayward, M. L. (2003). Professional influence: The effects of investment banks on clients' acquisition financing and performance. *Strategic Management Journal, 24*(9), 783-801.

Hensler, D. A., Rutherford, R. C., & Springer, T. M. (1997). The survival of initial public offerings in the aftermarket. *Journal of Financial Research, 20*(1), 93-110.

Hogan, K. M., & Olson, G. T. (2004). The pricing of equity carve-outs during the 1990s. *Journal of Financial Research, 27*(4), 521-537.

Hughes, J. S., Liu, J., & Liu, J. (2007). Information asymmetry, diversification, and cost of capital. *Accounting Review, 82*(3), 705-729.

Hulburt, H. M., Miles, J. A., & Woolridge, J. R. (2002). Value creation from equity carve-outs. *Financial Management, 31*(1), 83-100.

Ibbotson, R. G. (1975). Price performance of common stock new issues. *Journal of Financial Economics, 2*(3), 235-272.

Jagannathan, R., Jirnyi, A., & Sherman, A. E. (2010). Why don't issuers choose IPO auctions? The complexity of indirect mechanisms. *NBER Working Paper, (w16214).*

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

Judge, W. Q., Witt, M. A., Zattoni, A., Talaulicar, T., Chen, J. J., Lewellyn, K., ... & Van Ees, H. (2015). Corporate governance and IPO underpricing in a cross-national sample: A multilevel knowledge-based view. *Strategic Management Journal, 36*(8), 1174-1185.

Krigman, L., Shaw, W. H., & Womack, K. L. (1999). The persistence of IPO mispricing and the predictive power of flipping. *Journal of Finance, 54*(3), 1015-1044.

Lambert, R. A., Leuz, C., & Verrecchia, R. E. (2012). Information Asymmetry, Information Precision, and the Cost of Capital. *Review of Finance, 16*(1), 1-29.

Lee, D. D., & Madhavan, R. (2010). Divestiture and Firm Performance: A Meta-Analysis. *Journal of Management, 36*(6), 1345-1371.

Lee, J. J. (2013). Dancing with the Enemy? Relational Hazards and the Contingent Value of Repeat Exchanges in M&A Markets. *Organization Science, 24*(4), 1237-1256.

Leitterstorf, M. P., & Rau, S. B. (2014). Socioemotional wealth and IPO underpricing of family firms. *Strategic Management Journal, 35*(5), 751-760.

Ljungqvist, A. (2007). IPO underpricing. *Handbook of Empirical Corporate Finance, 2*, 375-422.

Ljungqvist, A., Nanda, V., & Singh, R. (2006). Hot Markets, Investor Sentiment, and IPO Pricing. *The Journal of Business, 79*(4), 1667-1702.

Ljungqvist, A., & Wilhelm, W. J. (2003). IPO pricing in the dot-com bubble. *Journal of Finance, 58*(2), 723-752.

Ljungqvist, A., & Wilhelm, W. J. (2005). Does prospect theory explain IPO market behavior? *Journal of Finance, 60*(4), 1759-1790.

Loughran, T., & Ritter, J. (2004). Why has IPO underpricing changed over time? *Financial Management, 33*(3), 5-37.

Loughran, T., & Ritter, J. R. (2002). Why don't issuers get upset about leaving money on the table in IPOs? *Review of Financial Studies, 15*(2), 413-443.

Lowry, M., Officer, M. S., & Schwert, G. W. (2010). The Variability of IPO Initial Returns. *Journal of Finance, 65*(2), 425-465.

Maug, E. (1998). Large shareholders as monitors: Is there a trade-off between liquidity and control? *Journal of Finance, 53*(1), 65-98.

McNamara, G. M., Haleblian, J., & Dykes, B. J. (2008). The performance implications of participating in an acquisition wave: Early mover advantages, bandwagon effects, and the moderating influence of industry characteristics and acquirer tactics. *Academy of Management Journal, 51*(1), 113-130.

Nanda, V., & Narayanan, M. P. (1999). Disentangling value: Financing needs, firm scope, and divestitures. *Journal of Financial Intermediation, 8*(3), 174-204.

Neter, J., Wasserman, W., & Kutner, M. Applied linear statistical models, 1985, Richard D. *Irwin, Homewood, IL*.

Pollock, T. G. (2004). The benefits and costs of underwriters' social capital in the US initial public offerings market. *Strategic Organization, 2*(4), 357-388.

Pollock, T. G., Porac, J. F., & Wade, J. B. (2004). Constructing deal networks: Brokers as network "architects" in the USIPO market and other examples. *Academy of Management Review, 29*(1), 50-72.

Prezas, A. P., Tarimcilar, M., & Vasudevan, G. K. (2000). The Pricing of Equity Carve-Outs. *Financial Review, 35*(4), 123-138.

Ritter, J. R. (1984). The hot issue market of 1980. *Journal of Business, 57*(2), 215-240.

Ritter, J. R. (1991). The long-run performance of initial public offerings. *Journal of Finance, 46*(1), 3-27.

Ritter, J. R., & Welch, I. (2002). A review of IPO activity, pricing, and allocations. *Journal of Finance, 57*(4), 1795-1828.

Rock, K. (1986). Why new issues are underpriced. *Journal of Financial Economics, 15*(1-2), 187-212.

Rousseau, D. M., Sitkin, S. B., Burt, R. S., & Camerer, C. (1998). Not so different after all: A cross-discipline view of trust. *Academy of Management Review, 23*(3), 393-404.

Schipper, K., & Smith, A. (1986). A comparison of equity carve-outs and seasoned equity offerings – Share price effects and corporate restructuring. *Journal of Financial Economics, 15*(1-2), 153-186.

Sherman, A. G. (1992). The pricing of best efforts new issues. *Journal of Finance, 47*(2), 781-790.

Slovin, M. B., Sushka, M. E., & Ferraro, S. R. (1995). A comparison of the information conveyed by equity carve-outs, spin-offs, and asset sell-offs. *Journal of Financial Economics, 37*(1), 89-104.

Thompson, T. H. (2010). Partial Price Adjustments and Equity Carve-Outs. *Financial Review, 45*(3), 743-759.

Uzzi, B. (1996). The sources and consequences of embeddedness for the economic performance of organizations: The network effect. *American Sociological Review, 61*(4), 674-698.

Uzzi, B. (1997). Social structure and competition in interfirm networks: The paradox of embeddedness. *Administrative Science Quarterly, 42*(1), 35-67.

Uzzi, B. (1999). Embeddedness in the making of financial capital: How social relations and networks benefit firms seeking financing. *American Sociological Review, 64*(4), 481-505.

Vijh, A. M. (1999). Long-term returns from equity carveouts. *Journal of Financial Economics, 51*(2), 273-308.

Vijh, A. M. (2002). The positive announcement-period returns of equity carveouts: Asymmetric information or divestiture gains? *Journal of Business, 75*(1), 153-190.

Welch, I. (1989). Seasoned offerings, imitation costs, and the underpricing of initial public offerings. *Journal of Finance, 44*(2), 421-449.

Welch, I. (1992). Sequential sales, learning, and cascades. *Journal of Finance, 47*(2), 695-732.

Williamson, S. D. (1987). Costly monitoring, loan contracts, and equilibrium credit rationing. *The Quarterly Journal of Economics*, 135-145.

Zingales, L. (1995). Insider ownership and the decision to go public. *Review of Economic Studies, 62*(3), 425-448.

3 Study 2: The influence of target CSR performance on acquirer acquisition announcement returns

Abstract

In Study 2, we examine the influence of a target's CSR performance on acquirer acquisition announcement returns. We argue that acquirers face lower information asymmetries and less opportunistic behavior during the acquisition process as well as post-acquisition access to valuable resources when targeting a company with superior CSR status, resulting in higher acquirer acquisition announcement returns. We furthermore identify the acquirer's own CSR as well as the regulatory focus of its CEO as contingency factors moderating the target CSR-acquirer performance relationship. We find empirical support for our hypotheses in a sample of 232 acquisitions announced by public US companies between 2003 and 2013.

Keywords: mergers and acquisitions, corporate social responsibility, acquisition announcement returns

Introduction

When German chemical company Bayer announced its intention to acquire US agricultural company Monsanto on 23 May 2016 (Reuters, 2016), severe backlash from investors, analysts, employees, and other stakeholders ensued. Remarkably, criticism not only revolved around common acquisition announcement issues such as a potentially excessive offer price or fear of workforce reduction. Rather, considerable concerns were raised that Bayer might be negatively affected by Monsanto's notorious reputation developed from controversial business practices and resulting lawsuits. For instance, leading German financial newspaper Handelsblatt (2016a) headlined "Monsanto Name Could Poison Bayer Deal", stating that Bayer's CEO Werner Baumann had to assuage concerns of "[Bayer] putting [its] reputation at risk" by reassuring that "[Bayer's] reputation is rooted in innovation, social responsibility, reliability, and sustainability" (Handelsblatt, 2016b). Bayer's share price still dropped by 6 percent upon the acquisition announcement, after having already fallen by 14 percent during the preceding week among rumors of an upcoming bid for Monsanto (Wall Street Journal, 2016). Could concerns of Bayer's shareholders regarding Monsanto's perceived poor corporate social responsibility (CSR) have contributed to the drop in Bayer's stock price?

Despite its practical relevance, surprisingly little is actually known in prior research to answer this question (Deng, Kang, & Low, 2013). To our knowledge, only Aktas, De Bodt, and Cousin (2011) have empirically examined the influence of target CSR on acquisition performance. For a small sample of 106 transactions, their findings indicate a positive relationship between target CSR performance and acquirer returns.The question whether a target's CSR reputation affects acquisition performance, however, is also academically interesting and relevant for several research fields. In research on mergers and acquisitions (M&A), identifying target characteristics that contribute to deal performance has been a major stream of prior literature (for a review cf. Haleblian, Devers, McNamara, Carpenter, & Davison, 2009). In CSR research, the overall performance

implications of CSR activities have been extensively researched (cf. Margolis & Walsh, 2003), hence creating the need to develop a more fine-grained view on which specific aspects of CSR might contribute to certain types of company performance.

With this study, we try to expand our understanding of this hitherto under-researched topic. We argue that targets with strong CSR performance exhibit reduced informational asymmetries (Akerlof, 1978) due to higher transparency (Kim, Park, & Wier, 2012). In addition, high CSR is a result of strong moral standards of a company and its management, which leads to non-exploitation of the remaining information asymmetries (Hosmer, 1995; Jones, 1995). Thus, both mechanisms reduce risk and uncertainty inherent in the acquisition process for the acquirer, thereby leading to stronger acquirer acquisition performance. This line of reasoning resonates well with prior research's understanding of CSR as an insurance-like property (Godfrey, Merrill, & Hansen, 2009). When subsequently exploring the contingency conditions of the target CSR-acquirer performance relationship, we argue that the insurance effect establishing the target CSR-acquirer performance relationship is more pronounced for acquirers facing CSR challenges as well as moderated by acquirer CEO regulatory focus (Gamache, McNamara, Mannor, & Johnson, 2015).

We test above hypotheses on a sample of 232 US acquisitions announced between 2003 and 2013. We empirically observe our hypothesized positive relationship between target CSR performance and acquirer abnormal announcement returns. As predicted, we find that the positive target CSR-acquirer performance relationship is more pronounced for acquirers struggling with their own CSR as well as for acquirers led by a CEO with a high prevention focus.

Our work adds to the literature both empirically and theoretically. Empirically, we observe CSR as a firm characteristic with the potential to influence acquisition performance and identify contingency factors moderating the CSR-acquisition performance relationship. Besides thereby contributing to the M&A literature on explaining acquisition performance, this is particularly interesting for the CSR

literature in regard that the causal direction between CSR performance and financial performance is often highly disputed in the CSR literature (Aktas et al., 2011). While it is in many research settings difficult to distinguish whether CSR activity increases financial performance or well-performing companies are more willing to engage in CSR, finding the target's CSR activities to improve the financial performance of the acquirer provides a clear indication of causal direction. Furthermore, we provide additional empirical support for prior research's understanding of CSR as an insurance-like property (Godfrey, 2005; Gardberg & Fombrun, 2006). On a theoretical level, we extend prior research's rationale that CSR activities can be value increasing by reducing information asymmetries and opportunistic behavior by applying it to an acquirer-target setting. Thereby we demonstrate that this explanation has explanatory power even when being applied beyond traditional stakeholders of a company (Lopatta, Buchholz, & Kaspereit, 2016).

The remainder of this study is organized as follows. In the next section, we provide the background to our study by reviewing the relevant literature on M&A performance and CSR. Subsequently, we develop our hypotheses on the target CSR-acquisition performance relationship and its contingency factors. Afterwards, we present our research design and empirical results before concluding with a discussion of our findings.

Background

Receiving a positive investor response is challenging for an acquirer when announcing an acquisition, with most M&A research reporting negative acquirer returns upon the announcement of an acquisition (cf. e.g., Datta, Pinches, & Narayanan, 1992; Haleblian et al., 2009; King, Dalton, Daily, & Covin, 2004). Consequently, M&A research has been particularly interested in identifying transaction and company characteristics with a positive influence on acquirer announcement returns. Examples for such characteristics include acquirer and target's size (Moeller, Schlingemann, & Stulz, 2004), a target's relatedness with its acquirer (Finkelstein & Haleblian, 2002), and the nature of the acquired assets (Laamanen, Brauer, & Junna, 2014).

A firm characteristic with well-established links in the literature contributing to company performance and investor recognition is a company's CSR performance[3] (cf. e.g., Cochran & Wood, 1984; Margolis & Walsh, 2003; Orlitzky, Schmidt, & Rynes, 2003; Waddock & Graves, 1997). Furthermore, CSR performance has also been tied to influence various other outcomes of a company's life (cf. e.g., Aguinis & Glavas, 2012; Malik, 2015). For instance, companies with strong CSR have been linked to better access to financing (Cheng, Ioannou, & Serafeim, 2014), lower cost of equity as well as increased analyst coverage and more dedicated institutional investors (Dhaliwal, Li, Tsang, & Yang, 2011), better company reputation (Brammer & Pavelin, 2006; Fombrun & Shanley, 1990), and higher quality employees (Turban & Greening, 1997).

Given the impact of CSR on so many aspects of a company's performance and the aforementioned interest to identify performance determinants of acquisition announcements, surprisingly little research, however, has hitherto addressed

[3] Researchers struggle to provide an exact definition of CSR due to the complexity of the issue (Lopatta et al., 2016). Unless otherwise stated, in this study and the remainder of the thesis we use expressions such as "CSR performance", "CSR status" and "corporate social performance (CSP)" interchangeably and employ a broad understanding of CSR comprising environmental, social, and governance. We further address this topic in our Methods chapter when presenting our CSR measurements.

whether CSR also influences acquisition performance. Of the few studies existing, most have focused on the impact of the *acquirer's CSR status* on deal performance and related outcomes. Deng et al. (2013) find that acquirers with a high CSR score exhibit a higher likelihood of merger completion, higher combined merger announcement returns, and a stronger long-term financial performance.

To Brooks and Oikonomou (2017) and our knowledge, however, only Aktas et al. (2011) have examined the influence of *target company's CSR status* on an acquirer's acquisition performance. For a small sample of 106 M&A deals from the period of 1997 to 2007, they observe a positive relationship between CSR scores of target companies and acquirer's announcement returns. Rating a target's CSR on a seven-unit scale, they report that a one-unit increase was associated with 0.9 percent higher abnormal acquirer announcement returns. However, although they extrapolated CSR scores three years backwards to increase sample size, their sample still only consists of 106 mergers and acquisitions, of which 94 to 95 are included in the relevant regression analyses.

Thus, while their study provides a first indication of a positive influence of acquiring a target with strong CSR on acquirer announcement returns, their results warrant further corroboration as intended by this study. In the following chapter, we first outline the challenges acquirers face when screening for and pursuing a target. We then argue that targets with strong CSR alleviate these challenges during the acquisition process, leading to higher acquirer announcement returns due to reduced risk.

Theory and hypotheses

As indicated by the well-documented skeptical investor reactions towards an acquirer announcing an acquisition that we outlined in the prior chapter, choosing a suitable acquisition target and pursuing the acquisition is a challenging task for a prospective acquirer. A major reason for that lies in the difficulties and risks for an acquirer involved in the target selection as well as the negotiation processes revolving around an intended acquisition (Pablo, Sitkin, & Jemison, 1996). In this chapter, we show that acquirers face disadvantageous information asymmetries when assessing the state of a potential target and are at risk from opportunistic behavior by target management when pursuing an acquisition. We then argue that a target's CSR score alleviates both these risks for an acquirer and thus leads to a more favorable market reaction around the acquisition announcement. In addition, we posit that this favorable market reaction is also a result of the superior CSR resources an acquirer obtains when purchasing a target with strong CSR status.

After having set the strategic objectives of an acquisition, for an acquirer the M&A process typically passes through five stages prior to the announcement of the deal: (1) searching and screening for a suitable target, (2) strategic evaluation of the prospective target, (3) financial evaluation of the prospective target, (4) negotiation with the management of the prospective target, and (5) contractual agreement to close the acquisition (Haspeslagh & Jemison, 1991). During all stages of this process, two challenges are particularly salient for the prospective acquirer. First, the acquirer needs to obtain comprehensive and reliable information on the target to accurately assess the state of the potential target and prepare for negotiations with target management. Since target management is at an informational advantage regarding data on its own company and acquirers typically are pressed for time, acquirer management faces information asymmetries (Parvinen & Tikkanen, 2007). Second, contracting is inherently incomplete in nature (Williamson, 1975, 1989). Thus, acquirers run the risk of target management engaging in opportunistic behavior such as for instance engaging in ex-post acquisition price escalation (Parvinen & Tikkanen, 2007).

Both these risks (i.e., information asymmetries and opportunistic behavior) in the acquisition process, however, are less salient for an acquirer choosing to pursue a target with a strong CSR performance (Lopatta et al., 2016). Companies with superior CSR performance have been observed to disclose both voluntarily more (Dhaliwal et al., 2011) and higher quality information (Kim et al., 2012). The resulting higher transparency decreases information asymmetries for an acquirer, thereby allowing for a better due diligence and more informed negotiations. Furthermore, strong CSR performance has been shown to decrease a company's intention to exploit remaining information asymmetries as well as to refrain from other forms of opportunistic behavior (Bénabou & Tirole, 2010; Cheng et al., 2014). This translates to a more efficient form of interactions based on trust and cooperation instead of legal contracts (Hosmer, 1995; Jones, 1995), resulting in a less risky acquisition process for the acquirer and thus higher announcement returns.

Besides reducing information asymmetries and opportunistic behavior during the acquisition process, targeting a company with a strong CSR performance also allows an acquirer to buy superior CSR resources (Berchicci, Dowell, & King, 2012; Wickert et al., 2017). For instance, Wickert et al., (2017) observed that large multinational enterprises acquired socially oriented organizations with the intention to acquire CSR-related knowledge and integrate new practices into their parent organization. This opportunity for the acquirer to subsequently draw on these resources post-acquisition to improve his own CSR performance further contributes to a more favorable market announcement reaction.

To sum up our baseline hypothesis, purchasing a target with strong CSR is less risky for an acquirer as it exposes him to lower disadvantageous information asymmetries during the acquisition process due to the better information availability and information quality with respect to the target as well as less opportunistic behavior from target management. In addition, such a deal allows an acquirer to buy superior CSR resources, which can be used to strengthen its own CSR performance post-acquisition. Thus, Hypothesis 1 states:

Hypothesis 1: Target CSR performance is positively related to an acquirer's acquisition announcement returns.

The moderating influences of acquirer's own CSR performance and acquirer CEO's regulatory focus

After having established our baseline hypothesis in the prior section how a target's CSR status affects acquirer announcement returns, we now explore contingency factors influencing this relationship. Specifically, we examine the roles of the acquirer's own CSR performance and its CEO's regulatory focus in shaping the target CSR-acquirer announcement returns relationship.

As observed by Harrison et al. (1991), companies benefit more from acquiring targets that give them access to resources the acquiring company lacked prior to the acquisition. Relatedly, Berchicci et al. (2012) argue that companies with poor environmental performances purchase environmentally superior facilities to strengthen their own environmental capabilities. In the context of our study, we expect acquirers with weak own CSR to experience a more pronounced announcement reaction since those acquirers possess a greater potential to subsequently improve their own CSR with the newly acquired CSR resources. Thus, we propose a more pronounced manifestation of the positive target CSR performance-acquirer announcement returns relationship the more acquirers are struggling with their own CSR prior to the focal acquisition:

Hypothesis 2: The influence of target CSR performance on acquirer's acquisition announcement returns is stronger for acquisitions with weak acquirer CSR performance.

Prior M&A research has established CEOs as key decision makers to heavily influence the initiation and pursuit of acquisitions, with one driving characteristic being a CEO's regulatory focus (Higgins, 1998; Gamache et al., 2015). CEOs typically have an inclination for either of two self-regulatory systems, with managers high in promotion focus seeking desirable end-states, while managers high in prevention focus are more defensive and aim to avoid undesirable end-

states (Gamache et al., 2020). Prior research has characterized CSR as an "insurance-like" resource (Godfrey et al., 2009), creating goodwill and moral capital against negative events affecting a company (Godfrey, 2005; Gardberg & Fombrun, 2006). This means CSR is particularly useful to prevent harm from a company rather than for instance promoting rapid growth. Thus, a CEO with a high prevention focus might be more aligned with the defensive nature of CSR and be able to manage these acquired resources more effectively:

Hypothesis 3: The influence of target CSR performance on acquirer's acquisition announcement returns is stronger for acquisitions where the acquirer's CEO has a high prevention focus.

Methods

Sample

Our sample consists of 232 acquisitions announced by public US companies between the beginning of 2003 and end of 2013. Data on M&A was drawn from Thomson ONE. We cross-checked the announcement dates from Thomson ONE using LexisNexis. Furthermore, using Thomson ONE and LexisNexis we eliminated acquisitions with confounding events such as CEO changes, earnings announcements, dividend payouts, alliances, divestitures, or other acquisitions within our event window. Data on CSR was obtained from Thomson Reuters Asset4 and KLD databases. Data on stock market returns and company financial data stem from CRSP and Worldscope, respectively.

Dependent variable

Acquirer CAR. Following prior research's conventions when studying performance implications of acquisitions (cf. Haleblian et al., 2009), we conduct an event study to measure the abnormal stock market returns around an acquirer's acquisition announcement. In line with prior research (e.g., Hayward, 2002; Laamanen et al., 2014; McNamara, Haleblian, & Dykes, 2008), we use an estimation window of 250 days that ends 45 days before the focal acquisition. We furthermore base our market portfolio on the S&P 500 index as we expect this index to correlate strongly with the companies from our sample. We calculate CARs over a [-1,1] three days window surrounding the date of the announcement to allow for enough time to capture significant stock price effects while being short enough to minimize the occurrence of confounding events (McWilliams & Siegel, 1997). To corroborate robustness of our results, we also calculate CAR with alternative event window lengths.

Explanatory variables

CSR index of target. For each company covered, Asset4 annually processes 900 data points to calculate 250 key performance indicators, which are further

organized into 18 categories within the four pillars (1) environmental performance score, (2) social performance score, (3) corporate governance score, and (4) economic performance score. We follow Cheng et al. (2014) in creating an equally-weighted composite index of the first three pillars (i.e., environmental, social, and corporate governance) to capture a target's CSR performance. Since Asset4 scores are already lagged by one year due to being based on prior's year data, we use the target company scores from the year of the focal acquisition when constructing *CSR index of target*.

CSR acquirer badness. Initially we tried to capture acquirer CSR performance by constructing the measure for the acquirer following the same procedure as outlined above for our measure target CSR measure. This, however, would have resulted in a sample size insufficient for further regression analysis involving control variables and interaction effects. Since both the state of prior research and theoretical considerations (cf. chapters background, theory and hypotheses) as well as empirical analysis based on a preliminary sample indicated target CSR to be more interesting, to describe the acquirer's CSR performance we followed Deng et al. (2013) by constructing an alternative operationalization based on data from the KLD database: For approximately 80 indicators along seven CSR dimensions, a company receives (loses) one point for every strength (concern) it displays. Subsequently, the net count (i.e., strengths minus concerns) of all indicators are first added up within each dimension and then equally weighted over all dimensions to receive the total CSR score. To allow for a more intuitive rationale of our Hypothesis 2 and easier interpretation of the corresponding moderation analysis, however, we reversed for *CSR acquirer badness* the way points are assigned (i.e., we calculated concerns minus strengths instead of strengths minus concerns).

Acquirer CEO promotion focus and *Acquirer CEO prevention focus.* We created *Acquirer CEO promotion focus* and *Acquirer CEO prevention focus* following the well-established content analysis procedure by Gamache et al. (2015). Using dictionaries containing 27 promotion and 25 prevention words provided by

aforementioned authors with the Linguistic Inquiry and Word Count (LIWC) software, we measured the percentage of promotion and prevention words within the acquirer CEO's letter to shareholders in the year preceding the focal acquisition.

Control variables

We control for multiple factors that prior research has identified to affect acquisition performance. With respect to acquirer's characteristics, we control for (1) *Acquirer size* measured as the log of an acquirer's total assets; (2) *Acquirer performance* measured as the return on an acquirer's total assets (ROA); (3) *Acquirer diversification* measured as the number of different SIC code industries the acquirer conducts business; (4) *Acquirer M&A experience* measured as the number of acquisitions conducted by the acquirer in the three years preceding the focal acquisition; (5) *Acquirer to target similarity* operationalized following the established SIC code measure by Haleblian and Finkelstein (1999). Regarding deal characteristics, we include (6) *Deal value* measured as the log of total deal price, (7) *Method of payment*, which is set to 1 for deals paid in cash and 0 for deals paid by shares or a combination of cash and shares. We furthermore include *year dummies* to account for differences in deal conditions over time.

Results

Descriptive statistics

Table 3 (see appendix) displays descriptive statistics including the means, standard deviations, and pairwise correlations for all variables used in our analysis. We observe no concerningly high correlations among our independent and control variables. This was also confirmed by our regression diagnostics, which did not show signs of a multicollinearity problem with an average variance inflation factors (VIFs) of 1.8 and each single VIF well below the commonly accepted threshold of 10 (Neter, Wasserman, & Kutner, 1985). Acquirers in our sample on average experience a slightly positive abnormal stock market reaction when announcing a transaction. As expected, we furthermore find a significant ($p < 0.05$) positive correlation between the explanatory variable *CSR index of target* and our dependent variable *Acquirer CAR*.

Hypotheses testing

To test our hypotheses, we employ multiple regression analysis with robust standard errors clustered at the acquirer firm level to control for acquirers conducting multiple acquisitions within our sample. Following Aiken, West, and Reno (1991), we mean-center the independent and moderator variables prior to calculating the interaction terms to facilitate their interpretation. In addition, we plot graphs for the interaction results to ensure correct interpretation.

Table 4 (see appendix) provides the results of our regression analysis. All models include *Acquirer CAR* as the dependent variable. Model 1 displays the base model including only the control variables.

In Model 2, we introduce our explanatory variable *CSR index of target* und find a significant positive relationship between that variable and *Acquirer CAR* ($p < 0.05$). This supports our Hypothesis 1, which predicted a positive impact of a target company's CSR quality on the acquirer's acquisition announcement returns.

We then continue our analysis with testing Hypothesis 2, predicting that weak acquirer's CSR performance positively moderates the influence of target CSR on acquirer announcement returns. Model 3 lends empirical support to that hypothesis with the product term *CSR index of target x CSR acquirer badness* exhibiting significant positive coefficients ($p < 0.01$). Further corroboration of Hypothesis 2 is found in Figure 3 (see appendix), which depicts a steeper slope for high values of *CSR acquirer badness*.

In Model 4, we include the product terms of *CSR index of target* with *Acquirer CEO promotion focus* and *Acquirer CEO prevention focus*. Our Hypothesis 3 states that high acquirer's CEO prevention focus positively moderates the influence of target CSR on acquirer announcement returns. Model 4 supports that prediction with the product term *CSR index of target x Acquirer CEO prevention focus* displaying a positive and significant ($p < 0.1$) coefficient. We observe further support of Hypothesis 3 when analyzing Figure 4 (see appendix), which depicts a steeper slope for high values of *Acquirer CEO prevention focus*.

Model 5 simultaneously includes all three interaction terms as a robustness check. We observe statistical significances of the variables along the line of Model 3 and 4, which further corroborates our results.

Discussion and conclusion

This study examines the influence of a target's CSR performance on the acquirer's share price when announcing an acquisition. We argue and find empirical support that a target with superior CSR performance decreases acquisition risk for an acquirer due to fewer information asymmetries and less opportunistic behavior by target management. This as well as better access for an acquirer to valuable CSR resources of the target leads to a more favorable investor reaction on the announcement of the deal. We furthermore explore the contingency factors moderating the target CSR-acquirer announcement returns relationship. We posit and observe that for acquirers struggling with their own CSR activities, acquiring a high CSR target is accompanied by a particularly favorable market reaction. Drawing on the concept of CEO regulatory focus, we then present arguments and find empirical support why the defensive nature of CSR is suited for an acquirer CEO with a prevention focus who better understands the value and utility of such an "insurance-like" resource.

Theoretical and practical contributions

Our study contributes both to research and practice. Regarding the latter, top management and directors involved in the preparation and execution of an acquisition are often frustrated by the typical negative market reaction when announcing an acquisition. Given that investors react more favorably to acquisitions involving high CSR targets, including a CSR assessment when screening for potential targets could be a useful consideration, especially for acquirers in need of additional CSR resources or with a CEO with the suitable mentality to derive value from acquired CSR resources.

With respect to our study's contributions to research, we both theoretically develop and find empirical support for a rationale why CSR as a target characteristic has the potential to influence acquirer acquisition performance. Furthermore, we identify the acquirer's own CSR performance and regulatory focus of its CEO as contingency factors positively moderating the CSR-

acquisition performance relationship. Besides thereby contributing to the stream of M&A literature that aims at identifying and confirming factors influencing acquisition performance, this is also particularly interesting for the CSR literature in the sense that the causal direction between CSR performance and financial performance is often unclear and highly disputed in the CSR literature (Aktas et al., 2011): While it is in many research settings difficult to distinguish whether CSR activity increases financial performance or well-performing companies are more willing to engage in CSR, finding the target's CSR status to improve the financial performance of the acquirer provides a clear causal direction. Furthermore, we provide additional empirical support for prior research's understanding of CSR as an insurance-like property (Godfrey, 2005; Gardberg & Fombrun, 2006).

Limitations of this study and avenues for future research

Our study has several limitations. First, when arguing for a positive impact of target CSR on acquirer announcement returns, we base our argumentation both on reduced risk for the acquirer during the acquisition process and CSR as a valuable resource for future use by the acquirer. Consequently, we cannot empirically differentiate between the relative importance of those two lines of reasoning.

Second, due to data availability our sample is restricted to US acquirers. While target CSR appears to positively influence announcement returns for those acquirers, this might not be true in countries with a different institutional and cultural settings (cf. e.g., Aguinis & Glavas, 2012; Malik, 2015). Thus, future research should address these limitations by analyzing potential cross-country differences in the impact of CSR on acquisition performance.

Third, we focused our study on short-term acquirer announcement returns. Supplementing this study with research on acquisition price levels and premia would reveal whether the value of CSR is actually reflected in the prices paid for targets with superior CSR (Gomes & Marsat, 2018, Qiao & Wu, 2019).

Furthermore, observing the long-term development of an acquirer's CSR performance post-acquisition could reveal whether acquirers are in fact able to improve their own CSR with CSR resources obtained through acquiring a superior CSR target as indicated by Aktas et al. (2011).

To conclude this paper, we briefly revisit the acquisition of Monsanto by Bayer from our introduction, a deal accompanied by extensive CSR concerns: After ongoing controversy, Bayer announced to retire the Monsanto name upon completing the acquisition (Reuters, 2018).

Table 3

Means, standard deviations, and correlations[a]

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11
1 Acquirer CAR	0.01	0.06											
2 CSR index of target	62.02	23.53	0.14										
3 CSR acquirer badness	-0.45	3.55	0.03	-0.07									
4 Acquirer CEO promotion focus	1.91	0.75	-0.21	0.06	-0.09								
5 Acquirer CEO prevention focus	0.25	0.27	-0.10	-0.13	-0.09	-0.06							
6 Acquirer size	3.94	1.10	-0.17	-0.08	-0.41	-0.02	0.37						
7 Acquirer performance	5.28	7.13	-0.08	0.08	-0.12	0.13	-0.22	-0.12					
8 Acquirer diversification	5.93	4.51	-0.06	0.02	-0.31	0.17	-0.01	0.49	0.03				
9 Acquirer M&A experience	17.70	36.94	-0.10	-0.06	-0.18	0.06	0.13	0.58	0.07	0.68			
10 Acquirer to target similarity	2.49	2.69	0.00	-0.04	0.06	0.07	-0.10	-0.14	0.03	-0.23	-0.32		
11 Deal value	2.26	0.72	0.05	0.06	-0.11	-0.03	0.05	0.33	0.05	0.13	0.05	0.08	
12 Method of payment	0.51	0.50	0.02	0.02	-0.05	0.02	0.11	-0.01	-0.01	0.03	-0.04	0.03	0.15

[a] N = 232. Values greater than .12 are significant at $p < .05$.

Table 4

Results of regression analysis[a]

Dependent Variable: Acquirer CAR	Model 1		Model 2		Model 3		Model 4		Model 5	
Acquirer size	0.0164	(0.0104)	-0.0158	(0.0101)	-0.0138	(0.0094)	-0.0183 *	(0.0098)	-0.0161 *	(0.0089)
Acquirer performance	-0.0009	(0.0010)	-0.0009	(0.0010)	-0.0008	(0.0010)	-0.0011	(0.0010)	-0.0009	(0.0009)
Acquirer diversification	0.0012	(0.0010)	0.0012	(0.0009)	0.0013	(0.0009)	0.0013	(0.0009)	0.0015	(0.0009)
Acquirer M&A experience	0.0000	(0.0001)	0.0000	(0.0001)	0.0000	(0.0001)	0.0000	(0.0001)	-0.0001	(0.0001)
Acquirer to target similarity	0.0004	(0.0020)	0.0008	(0.0020)	0.0000	(0.0020)	0.0013	(0.0020)	0.0005	(0.0021)
Deal value	0.0120 **	(0.0059)	0.0113 *	(0.0059)	0.0116 **	(0.0056)	0.0119 **	(0.0058)	0.0120 **	(0.0055)
Method of payment	0.0028	(0.0078)	0.0023	(0.0079)	0.0067	(0.0076)	0.0033	(0.0084)	0.0083	(0.0081)
CSR index of target			0.0003 **	(0.0001)	0.0003 **	(0.0001)	0.0003 **	(0.0001)	0.0003 **	(0.0001)
CSR acquirer badness					-0.0016	(0.0011)			-0.0016	(0.0011)
Acquirer CEO promotion focus							-0.0168 **	(0.0072)	-0.0180 **	(0.0073)
Acquirer CEO prevention focus							0.0087	(0.0180)	0.0103	(0.0171)
CSR index of target x CSR acquirer badness					0.0001 ***	(0.0000)			0.0001 ***	(0.0000)
CSR index of target x Acquirer CEO promotion focus							0.0001	(0.0003)	-0.0001	(0.0003)
CSR index of target x Acquirer CEO prevention focus							0.0011 *	(0.0006)	0.0013 **	(0.0005)
R^2	0.126		0.139 **		0.168 **		0.154 **		0.187 ***	

[a] N = 232. Unstandardized regression coefficients are reported with standard errors in parentheses. Year dummies are included in all models, but not reported due to space limitations.

* p < .10
** p < .05
*** p < .01

Figure 3

Moderating effect of CSR acquirer badness on the relationship between CSR index of target and Acquirer CAR

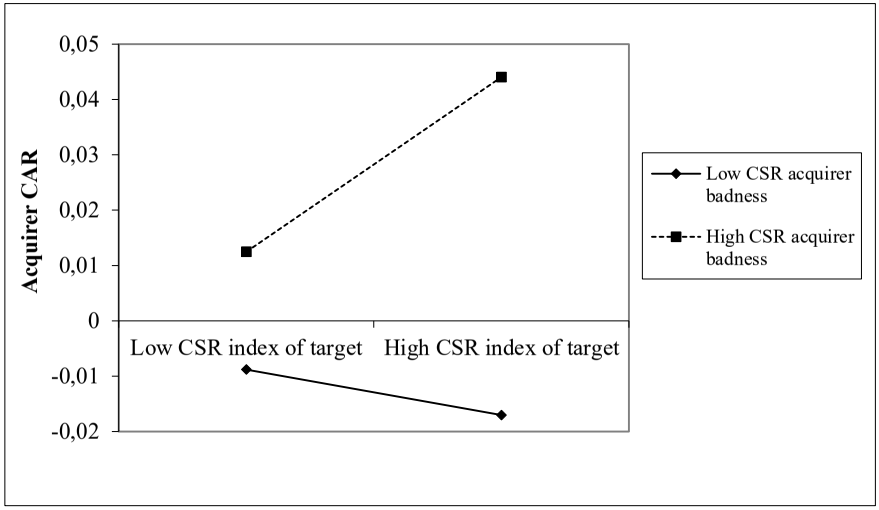
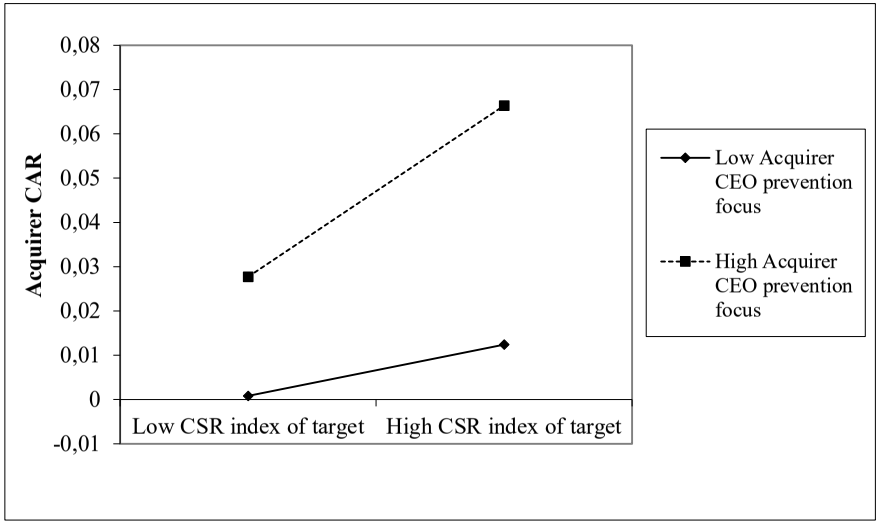


Figure 4

Moderating effect of Acquirer CEO prevention focus on the relationship between CSR index of target and Acquirer CAR



References

Aguinis, H., & Glavas, A. (2012). What we know and don't know about corporate social responsibility: A review and research agenda. *Journal of Management, 38*(4), 932-968.

Aiken, L. S., West, S. G., & Reno, R. R. (1991). *Multiple regression: Testing and interpreting interactions*: Sage.

Akerlof, G. A. (1978). The market for "lemons": Quality uncertainty and the market mechanism *Uncertainty in Economics* (pp. 235-251): Elsevier.

Aktas, N., De Bodt, E., & Cousin, J.-G. (2011). Do financial markets care about SRI? Evidence from mergers and acquisitions. *Journal of Banking & Finance, 35*(7), 1753-1761.

Bénabou, R., & Tirole, J. (2010). Individual and corporate social responsibility. *Economica, 77*(305), 1-19.

Berchicci, L., Dowell, G., & King, A. A. (2012). Environmental capabilities and corporate strategy: Exploring acquisitions among US manufacturing firms. *Strategic Management Journal, 33*(9), 1053-1071.

Brammer, S. J., & Pavelin, S. (2006). Corporate reputation and social performance: The importance of fit. *Journal of Management Studies, 43*(3), 435-455.

Brooks, C., & Oikonomou, I. (2017). The effects of environmental, social and governance disclosures and performance on firm value: a review of the literature in accounting and finance. *The British Accounting Review*.

Cheng, B., Ioannou, I., & Serafeim, G. (2014). Corporate social responsibility and access to finance. *Strategic Management Journal, 35*(1), 1-23.

Cochran, P. L., & Wood, R. A. (1984). Corporate social responsibility and financial performance. *Academy of Management Journal, 27*(1), 42-56.

Datta, D. K., Pinches, G. E., & Narayanan, V. K. (1992). Factors influencing wealth creation from mergers and acquisitions: A meta-analysis. *Strategic Management Journal, 13*(1), 67-84.

Deng, X., Kang, J.-k., & Low, B. S. (2013). Corporate social responsibility and stakeholder value maximization: Evidence from mergers. *Journal of Financial Economics, 110*(1), 87-109.

Dhaliwal, D. S., Li, O. Z., Tsang, A., & Yang, Y. G. (2011). Voluntary nonfinancial disclosure and the cost of equity capital: The initiation of corporate social responsibility reporting. *The Accounting Review, 86*(1), 59-100.

Finkelstein, S., & Haleblian, J. (2002). Understanding acquisition performance: The role of transfer effects. *Organization Science, 13*(1), 36-47.

Fombrun, C., & Shanley, M. (1990). What's in a name? Reputation building and corporate strategy. *Academy of Management Journal, 33*(2), 233-258.

Gamache, D., Neville, F., Bundy, J., & Short, C. (2020). Serving differently: CEO regulatory focus and firm stakeholder strategy. *Strategic Management Journal*, *41*(7), 1305-1335.

Gamache, D. L., McNamara, G., Mannor, M. J., & Johnson, R. E. (2015). Motivated to acquire? The impact of CEO regulatory focus on firm acquisitions. *Academy of Management Journal, 58*(4), 1261-1282.

Gardberg, N. A., & Fombrun, C. J. (2006). Corporate citizenship: Creating intangible assets across institutional environments. *Academy of Management Review, 31*(2), 329-346.

Godfrey, P. C. (2005). The relationship between corporate philanthropy and shareholder wealth: A risk management perspective. *Academy of Management Review, 30*(4), 777-798.

Godfrey, P. C., Merrill, C. B., & Hansen, J. M. (2009). The relationship between corporate social responsibility and shareholder value: An empirical test of the risk management hypothesis. *Strategic Management Journal, 30*(4), 425-445.

Gomes, M., & Marsat, S. (2018). Does CSR impact premiums in M&A transactions?. *Finance Research Letters*, *26*(1), 71-80.

Haleblian, J., Devers, C. E., McNamara, G., Carpenter, M. A., & Davison, R. B. (2009). Taking stock of what we know about mergers and acquisitions: A review and research agenda. *Journal of Management, 35*(3), 469-502.

Haleblian, J., & Finkelstein, S. (1999). The influence of organizational acquisition experience on acquisition performance: A behavioral learning perspective. *Administrative Science Quarterly, 44*(1), 29-56.

Harrison, J. S., Hitt, M. A., Hoskisson, R. E., & Ireland, R. D. (1991). Synergies and post-acquisition performance: Differences versus similarities in resource allocations. *Journal of Management, 17*(1), 173-190.

Haspeslagh, P. C., & Jemison, D. B. (1991). *Managing acquisitions: Creating value through corporate renewal* (Vol. 416): Free Press New York.

Hayward, M. L. (2002). When do firms learn from their acquisition experience? Evidence from 1990 to 1995. *Strategic Management Journal, 23*(1), 21-39.

Higgins, E. T. (1998). Promotion and prevention: Regulatory focus as a motivational principle *Advances in Experimental Social Psychology* (Vol. 30, pp. 1-46): Elsevier.

Hosmer, L. T. (1995). Trust: The connecting link between organizational theory and philosophical ethics. *Academy of Management Review, 20*(2), 379-403.

Jones, T. M. (1995). Instrumental stakeholder theory: A synthesis of ethics and economics. *Academy of Management Review, 20*(2), 404-437.

Kim, Y., Park, M. S., & Wier, B. (2012). Is earnings quality associated with corporate social responsibility? *The Accounting Review, 87*(3), 761-796.

King, D. R., Dalton, D. R., Daily, C. M., & Covin, J. G. (2004). Meta-analyses of post-acquisition performance: Indications of unidentified moderators. *Strategic Management Journal, 25*(2), 187-200.

Laamanen, T., Brauer, M., & Junna, O. (2014). Performance of acquirers of divested assets: Evidence from the US. software industry. *Strategic Management Journal, 35*(6), 914-925.

Lopatta, K., Buchholz, F., & Kaspereit, T. (2016). Asymmetric information and corporate social responsibility. *Business & Society, 55*(3), 458-488.

Malik, M. (2015). Value-enhancing capabilities of CSR: A brief review of contemporary literature. *Journal of Business Ethics, 127*(2), 419-438.

Margolis, J. D., & Walsh, J. P. (2003). Misery loves companies: Rethinking social initiatives by business. *Administrative Science Quarterly, 48*(2), 268-305.

McNamara, G. M., Haleblian, J., & Dykes, B. J. (2008). The performance implications of participating in an acquisition wave: Early mover advantages, bandwagon effects, and the moderating influence of industry characteristics and acquirer tactics. *Academy of Management Journal, 51*(1), 113-130.

McWilliams, A., & Siegel, D. (1997). Event studies in management research: Theoretical and empirical issues. *Academy of Management Journal, 40*(3), 626-657.

Moeller, S. B., Schlingemann, F. P., & Stulz, R. M. (2004). Firm size and the gains from acquisitions. *Journal of Financial Economics, 73*(2), 201-228.

Neter, J., Wasserman, W., & Kutner, M. (1985). Applied linear statistical models: Regression, analysis of variance and experimental designs. Homewood, Illinois: Richard D. Irwin. *Inc., I, L27 p*.

Orlitzky, M., Schmidt, F. L., & Rynes, S. L. (2003). Corporate social and financial performance: A meta-analysis. *Organization Studies, 24*(3), 403-441.

Pablo, A. L., Sitkin, S. B., & Jemison, D. B. (1996). Acquisition decision-making processes: The central role of risk. *Journal of Management, 22*(5), 723-746.

Parvinen, P., & Tikkanen, H. (2007). Incentive asymmetries in the mergers and acquisitions process. *Journal of Management Studies, 44*(5), 759-787.

Qiao, L., & Wu, J. (2019). Pay for being responsible: The effect of target Firm's corporate social responsibility on cross-border acquisition premiums. *Sustainability, 11*(5), 1291.

Turban, D. B., & Greening, D. W. (1997). Corporate social performance and organizational attractiveness to prospective employees. *Academy of Management Journal, 40*(3), 658-672.

Waddock, S. A., & Graves, S. B. (1997). The corporate social performance–financial performance link. *Strategic Management Journal, 18*(4), 303-319.

Wickert, C., Vaccaro, A., & Cornelissen, J. (2017). "Buying" corporate social responsibility: organisational identity orientation as a determinant of practice adoption. *Journal of Business Ethics, 142*(3), 497-514.

Williamson, O. E. (1975). Markets and hierarchies. *New York, 2630*.

Williamson, O. E. (1989). Transaction cost economics. *Handbook of industrial organization, 1*, 135-182.

4 Study 3: The influence of acquirer CSR on investor reaction in cross-border acquisitions by emerging market acquirers

Abstract

In Study 3, we analyze the influence of acquirer CSR performance on acquirer announcement returns for a sample of 545 transactions, in which acquirers from emerging countries purchased targets from developed markets. Drawing on stakeholder theory, we argue that emerging market acquirers with higher CSR performance experience more favorable investor reactions upon acquisition announcement. We furthermore posit that this CSR performance-investor reaction relationship is more pronounced in acquisitions characterized by larger institutional or cultural distances between the acquirer and target's countries.

Keywords: corporate social responsibility, cross-border acquisitions, emerging market acquirers

Introduction

When companies from emerging markets try to acquire targets in developed countries, they are regularly met by considerably skepticism from various stakeholders in the developed countries such as politicians, employees, and the media (Tingley et al., 2015). The latter's concerns typically revolve around negative perceptions and stereotypes regarding inferior ethical, governance, and regulatory standards of emerging countries (Zhou & Guillén, 2015). This often leads to a "liability of foreignness" (Aybar & Ficici, 2009) for emerging market acquirers impeding a prospective acquisition. One remedy in such a situation could be the ability of a company to signal "trustworthiness" (Barney & Hansen, 1994). Prior research has identified CSR as a way to prove such trustworthiness since a company with high CSR performance has demonstrated conduct that goes beyond a mere adherence to minimal regulatory and legal requirements (Boubakri et al., 2016).

But above phenomenon is also interesting from the perspective of M&A research. Most prior studies on cross-border M&A have focused on acquirers from developed countries (cf., Bhagat, Malhotra, & Zhu, 2011). In contrast, despite their growing economic and societal importance little research has been conducted on emerging market acquirers, especially those targeting companies from developed markets (c.f., Tao et al., 2017). Furthermore, most M&A studies have found a negative investor reaction for an acquirer when announcing an acquisition (cf. e.g., Datta, Pinches, & Narayanan, 1992; Haleblian et al., 2009; King, Dalton, Daily, & Covin, 2004). This highlights the importance for M&A research to further explore the phenomenon of emerging countries acquirers as well as to try to identify firm characteristics leading to a more favorable investor reaction for acquirers. We address both these gaps by analyzing the influence of an emerging market acquirer's CSR performance on the reaction of its investors when announcing the acquisition of a target from a developed market.

Drawing on stakeholder theory (Waddock & Graves, 1997; Roberts & Dowling, 2002), we argue that having a track record of strong CSR performance is

indicative of the willingness and ability to cater to multiple factions, which enables emerging market acquirers to gain the trust of both with their own investors and in the developed market. Consequently, their investors expect acquirers with strong CSR performance to being able to overcome the liability of foreignness and thus assess the focal acquisition more favorably. When exploring the boundary conditions of this acquirer CSR performance-investor response relationship, we furthermore posit that CSR become more influential in acquisitions the larger the institutional and cultural distances between the acquirer and target's countries are.

To test those hypotheses, we analyze a sample of 545 cross-border acquisitions from 2000 to 2014, in which a public acquirer from an emerging market purchased a developed market target. While we find significant average positive announcement returns for the emerging market acquirers, we are unable to empirically observe above hypothesized relationships regarding the influence of CSR performance.

Our study contributes to the literature in several ways. First, we add to stakeholder theory in the context of CSR (Waddock & Graves, 1997; Roberts & Dowling, 2002) by providing a rationale how strong historical CSR performance functions as a signal of trustworthiness for a company when interacting with various factions. Second, we contribute an interesting extension to the bootstrapping hypothesis from research on spillover effects in M&A (cf., Goergen & Renneboog, 2008; Martynova & Renneboog, 2008; Bhagat et al., 2011) by arguing that acquirers with strong prior CSR performance receive a more favorable investor reaction as opposed to those authors expecting acquirers with weaker governance standards to receive a more positive investor reaction when targeting companies in markets with higher standards. Third, our lack of observing a clear empirical influence of CSR performance could also be interpreted as support of the extant literature on CSR, which has largely yielded ambiguous findings on the relationship of CSR and various aspects of firm performance (cf. Malik, 2015).

The remainder of this study is organized as follows. In the next section, we review the relevant literature on cross-border M&A and CSR before developing our hypotheses. Subsequently, we present our empirical research design and results before finishing with a discussion of our findings.

Background and hypotheses

In Study 2, we outlined that most researchers report negative reactions to the acquirers' stock prices upon acquisition announcements (cf. e.g., Datta, Pinches, & Narayanan, 1992; Haleblian et al., 2009; King, Dalton, Daily, & Covin, 2004), which leads research to a particular interest in settings as well as firm characteristics with a more favorable investor assessment.

With respect to settings, cross-border M&A have long been such a potentially promising constellation. While most research has not observed substantial performance differences between cross-border and domestic M&A, these studies predominantly focused on acquirers from developed countries pursuing cross-border acquisitions (cf., Bhagat, Malhotra, & Zhu, 2011). Little research, however, has been conducted on emerging market acquirers (c.f., Tao et al., 2017). This distinction is important since prior research has also found evidence that acquirers from countries with low corporate governance standards are met with a more favorable investor reaction when targeting companies from countries with higher corporate governance standards due to the anticipation of bootstrapping spillovers (Martynova & Renneboog, 2008).

With respect to firm characteristics, little research has hitherto studied the influence of CSR performance on acquisition performance. Deng et al. (2013) find that acquirers with a higher CSR score exhibit a higher likelihood of merger completion, higher combined merger announcement returns, and a stronger long-term financial performance. Aktas et al. (2011) observe a positive relationship between CSR scores of target companies and acquirer's announcement returns. Gomes and Marsat (2018) as well as Qiao and Wu (2019) find that target CSR is positively associated with bid premiums.

To the best of our knowledge, however, no study so far has examined the influence of CSR performance in a cross-border M&A setting involving acquirers from emerging countries targeting companies from developed markets. This is surprising since prior research has identified CSR performance as a firm characteristic influencing a broad range of other company actions and outcomes

(cf. e.g., Aguinis & Glavas, 2012; Malik, 2015). Examples include company performance and investor perception (e.g., Cochran & Wood, 1984; Margolis & Walsh, 2003; Orlitzky, Schmidt, & Rynes, 2003; Waddock & Graves, 1997), access to financing (Cheng, Ioannou, & Serafeim, 2014), cost of equity as well as analyst coverage and dedication of institutional investors (Dhaliwal, Li, Tsang, & Yang, 2011), company reputation (Brammer & Pavelin, 2006; Fombrun & Shanley, 1990), quality of employees (Turban & Greening, 1997), higher brand equity and level of consumer satisfaction (Lev, Petrovits, & Radhakrishnan, 2010).

The link between CSR performance and investor response in cross-border M&A

Conducting cross-border M&A is complex and challenging – especially for acquirers from developing countries (Li, Wang & Kuo, 2019). Most research supports the notion that companies from developed markets both have a longer history of and adherence to higher governance and CSR standards (cf. Husted, 2015; Liang & Renneboog, 2017). For instance, Ioannou and Serafeim (2012) report that financial, social welfare, and labor right protection systems are on average better in developed markets than in their emerging counterparts. In addition, some further concerns may also arise from generally negative stereotypes in developed markets about inferior developing country governance and regulatory standards (Zhou & Guillén, 2015). In their pursuit of acquiring developed market targets, acquirers from emerging countries hence frequently face a "liability of foreignness" (Aybar & Ficici, 2009) that includes being perceived as being not trustworthy. Consequently, these acquirers often encounter resistance from key stakeholders (e.g., public, politicians, and regulators) in the target countries that could derail or prevent an acquisition as well as impede subsequent post-merger integration along the way.

A strong CSR performance is one way to signal such "trustworthiness", a characteristic already identified in prior research as source of a potential competitive advantage by Barney and Hansen (1994). By achieving high CSR

performance, a company has demonstrated conduct that goes beyond a mere adherence to minimal regulatory and legal requirements (Boubakri et al., 2016). Thus, emerging market acquirers may be able to demonstrate a willingness and ability to comply with target countries' norms and expected conduct and hence ultimately gaining legitimacy with target countries' critical stakeholders (Li et al., 2019).

Furthermore, this trustworthiness also extends directly to the acquirer's own shareholders. Being typically a major pursuit requiring considerable management attention, cross-border acquisitions may create concerns among the emerging market shareholders as well as other incumbent stakeholders that existing long-term relationships will be jeopardized in favor of the new endeavor (Deng et al., 2013). The stakeholder theory perspective on CSR (Waddock & Graves, 1997; Roberts & Dowling, 2002) explains that companies with high CSR performance have a proven history of being able to take into consideration and manage such multiple and conflicting demands and interests. Consequently, investors of acquirers with high CSR performance are less concerned of being neglected in favor of new factions and thus view an announced cross-border acquisition more favorably.

In summary, we argue that by creating a sense of trustworthiness both with target stakeholders as well as the companies' own shareholders, emerging market acquirers with better CSR performance are met with a more favorable investor response from their own shareholders. Our *Hypothesis 1* hence reads:

Hypothesis 1: Emerging market acquirers with higher CSR performance are, on average, associated with a more positive investor response by their shareholders.

In the previous section we outlined why a company from an emerging market faces a "liability of foreignness" (Aybar & Ficici, 2009) when pursuing a target from a developed country and how an acquirer's CSR provides a remedy for such foreignness, leading to a more positive assessment of the announced acquisition by its investors. Two key sources of this foreignness are differences in the

institutional (cf., Xie, Reddy & Liang, 2017) and cultural environment (cf., Beugelsdijk et al., 2018). The former comprises the regulatory and political environment, the latter is shaped by the population's attitudes regarding aspects such as power distance, uncertainty avoidance, individualism, masculinity, long-term orientation, and indulgence (Hofstede, 2001). The liability of foreignness for an acquirer increases the more dissimilar the countries in the focal acquisition are. Thus, we expect acquirer CSR performance to be more influential in acquisitions characterized by larger institutional or cultural distances. Hence, *Hypotheses 2* and *3* state:

Hypothesis 2: The CSR performance-investor response relationship is more pronounced for larger institutional differences between the acquirer and target's countries of origin.

Hypothesis 3: The CSR performance-investor response relationship is more pronounced for larger cultural differences between the acquirer and target's countries of origin.

Methods

Sample and data collection

Our final sample for subsequent hypotheses testing consists of 545 acquisitions with a minimum deal value of 5 million USD announced between the beginning of 2000 and end of 2014, in which a public acquirer from an emerging market purchased a developed market target. We furthermore only included transactions with CSR data for the acquirer being available from Thomson Reuter's Asset4 database. We obtained M&A data from Thomson ONE, market returns and company financial data from Datastream, and data on CSR from Asset4.

Dependent variable

Acquirer CAR. To assess market reaction to an M&A announcement, we follow prior research's dominant approach of using event study methodology (cf. Haleblian et al., 2009; Hayward, 2002; Laamanen et al., 2014; McNamara, Haleblian, & Dykes, 2008). We calculate cumulative abnormal returns (CAR) over a three-day window [-1; +1] around the date of an acquisition's announcement.

Explanatory variables

Acquirer CSR. Asset4 annually processes 900 data points to calculate 250 key performance indicators for each company covered. These key performance indicators are further organized into 18 categories within the four pillars (1) environmental performance score, (2) social performance score, (3) corporate governance score, and (4) economic performance score. We follow Cheng et al. (2014) in creating an equally weighted composite index of the first three pillars (i.e., environmental, social, and corporate governance) to capture an acquirer's CSR performance. Since Asset4 scores are already lagged by one year due to being based on prior's year data, we use the acquirer company scores from the year of the focal acquisition when constructing *Acquirer CSR*.

Institutional differences. To create a measure for institutional differences between the acquirer and target's host countries, we draw on the "Institutions" indicator from the Global Competitiveness Report provided by the World Economic Forum (WEF). This indicator assesses the quality of a country's both public and private institutional environment on a scale of 1 to 7 with respect to property rights, public ethics and corruption, undue influence, government efficiency, security, corporate ethics, and corporate accountability. We calculate *Institutional differences* as the difference between the target country score and the acquirer country score.

Cultural differences. Following broad research convention, we base our measure for *Cultural differences* on Hofstede's (2001) cultural composite index factoring in power distance, uncertainty avoidance, individualism, masculinity, long-term orientation, and indulgence. We calculate the difference between the target country score and the acquirer country score for each of above six factors and then use the arithmetic mean over these six factors as *Cultural differences.*

Control variables

In our hypotheses testing, we include multiple standard control variables identified by prior research as being influential on acquisition announcement returns. Specifically, we control for (1) *Acquirer leverage* as total debt to total assets, (2) *Diversifying acquisition* as a dummy variable equaling 1 if the primary SIC division of target and acquirer differ, (3) *Public target* as a dummy variable equaling 1 if the target is a publicly listed company, (4) *Deal size* measured as acquisition value in USD billion, (5) *Method of payment* as a dummy variable equaling 1 if the acquisition is paid with cash only.

Results

Descriptive statistics

Table 5 (see appendix) depicts the means, standard deviations, and pairwise correlations for all variables used in our analysis. No concerningly high correlations among our explanatory and control variables emerged, which is in line with our regression diagnostics that resulted in each variance inflation factor (VIF) being below the commonly accepted threshold of 10 (Neter, Wasserman, & Kutner, 1985). We furthermore conduct event study analysis and find that the mean *Acquirer CAR* for the three-day event window (–1, +1) is 0.44 percent and significant ($p < 0.05$).

Hypotheses testing

To test our hypotheses, we employ multiple regression analysis with robust standard errors clustered at the acquirer firm level to control for acquirers conducting multiple acquisitions within our sample. We furthermore include a year trend variable to account for temporal effects. Following Aiken, West, and Reno (1991), we mean-center the independent and moderator variables prior to calculating the interaction terms to facilitate their interpretation.

Table 6 (see appendix) provides the results of our further regression analysis. All models include *Acquirer CAR* as the dependent variable. Model 1 displays the base model including only the control variables. In Model 2, we introduce our explanatory variable *Acquirer CSR,* but do not find a significant relationship and thus reject Hypothesis 1. In Models 3 and 4 we introduce the interaction terms of *Acquirer CSR* with *Institutional differences* and *Cultural differences*, respectively, but do not find significant relationships and thus reject Hypotheses 2 and 3. Model 5 displays the full model.

Discussion and conclusion

This study examines the influence of acquirers' CSR performance on their announcement returns in cross-border M&A, specifically the case of acquirers from emerging markets bidding for targets from developed countries. Drawing on stakeholder theory, we explain how CSR performance helps acquirers from emerging markets to overcome their liability of foreignness (Aybar & Ficici, 2009) when targeting companies from developed countries by generating trust both with their own investors and in the target country. We furthermore explore contingency factors and argue that an acquirer's CSR performance is increasingly beneficial in achieving a positive investor reaction the more the institutional and cultural environments differ between the focal emerging and the developed countries.

Empirically, we observe significant positive announcement returns for the emerging market acquirer when announcing the acquisition of a target from a developed country. We do not, however, find empirical support for above notions that the acquirer's CSR performance influences that positive investor reaction.

Theoretical and practical contributions

Despite the few empirical findings, our study still contributes to research as well as practice. With respect to the latter, we provide encouragement for emerging market companies to pursue acquisitions in developed markets as indicated by our observation of a favorable investor reaction.

Regarding our study's contribution to research, we extend the perspective of stakeholder theory on the role of CSR (Waddock & Graves, 1997; Roberts & Dowling, 2002) by providing a rationale how strong historical CSR performance functions as a signal of trustworthiness for a company when interacting with various factions. In addition, we provide an interesting twist to the literature on the role of spillover effects in M&A (cf., Goergen & Renneboog, 2008; Martynova & Renneboog, 2008; Bhagat et al., 2011): While these authors present a bootstrapping hypothesis that acquirers with weaker governance standards may

receive a positive investor reaction by bonding themselves to countries with higher standards via acquisitions, we argue that in the case of CSR strong prior performance is beneficial for conducting an acquisition in markets with higher standards and is thus accompanied by a more favorable investor reaction. Last, our lack of observing an empirical influence of CSR performance could also support the ambiguous role of that phenomenon in prior research, which has often struggled to clearly identify an either positive or negative influence of CSR on various aspects of firm performance (cf. Malik, 2015).

Limitations of this study and avenues for future research

Our study also has several limitations. First, while we observe an on average positive investor reaction for an emerging market acquirer when announcing an acquisition in a developed market, we empirically fail to find support for any contribution of CSR to that favorable investor assessment. One reason therefor could be the still rather limited availability of data on emerging market companies with respect to CSR, leading to our sample of 545 acquisitions over 14 years. Reassessing our hypotheses at a later stage once more data becomes available could lead to significant findings. Second, due to the paucity of data we also chose to focus on the role of acquirer CSR performance without simultaneously considering the target's CSR performance. As our own Study 2 has demonstrated, however, target CSR has important theoretical as well as empirical influences. Most research on the role of CSR in M&A performance has hitherto been limited to either acquirer or target CSR (e.g., Aktas et al., 2011; Deng et al., 2013), a limitation hopefully addressed by future research. Third, we focused on the reaction of an acquirer's investors as measured by announcement returns. When developing our hypotheses, we argued that acquirers with strong CSR performance are better suited to build trust and cater to various factions in adverse environment. This could also well translate to other outcomes of M&A such as rate and speed of deal completion or various other aspects of post-merger integration.

In conclusion, we expect CSR as well as cross-border acquisitions by emerging market acquirers to remain – and increasingly become – relevant topics, both for academia and management. With our study, we hope to have added some interesting initial insights into the intersection of these two promising fields.

.

Table 5

Means, standard deviations, and correlations[a]

	Mean	s.d.	1	2	3	4	5	6	7	8	9
1 Acquirer CAR [-1;1]	0.44	4.73	1.00								
2 Acquirer CSR	45.10	25.72	-0.03	1.00							
3 Institutional differences	0.98	0.58	0.00	-0.02	1.00						
4 Cultural differences	24.18	9.66	-0.05	-0.03	0.00	1.00					
5 Acquirer leverage	0.52	0.21	-0.08	0.05	-0.05	-0.05	1.00				
6 Diversifying acquisition	0.28	0.45	0.00	-0.10	0.10	-0.06	0.02	1.00			
7 Public target	0.18	0.39	-0.09	0.00	0.07	0.07	0.09	-0.08	1.00		
8 Deal size	0.34	0.93	-0.11	0.08	0.12	0.07	0.05	-0.09	0.32	1.00	
9 Method of payment	0.91	0.28	0.00	-0.04	-0.07	0.08	0.04	-0.05	-0.01	-0.01	1.00

[a]N = 545. Values greater (smaller) than .07 (-.07) are significant at $p < .05$.

Table 6

Results of regression analysis[a]

Acquirer CAR [-1;1]	(1) Controls only	(2) Direct effect	(3) IA with Institutional differences	(4) IA with Cultural differences	(5) Full model
Acquirer CSR		-0.00371	-0.00377	-0.00325	-0.00332
		(0.00723)	(0.00722)	(0.00723)	(0.00722)
Acquirer leverage	-1.453*	-1.429*	-1.424*	-1.538*	-1.533*
	(0.859)	(0.846)	(0.847)	(0.848)	(0.849)
Diversifying acquisition	-0.184	-0.203	-0.203	-0.211	-0.207
	(0.441)	(0.447)	(0.452)	(0.451)	(0.456)
Public target	-0.813*	-0.824*	-0.871*	-0.701	-0.746
	(0.492)	(0.492)	(0.487)	(0.500)	(0.495)
Deal size	-0.000442***	-0.000433***	-0.000439***	-0.000430***	-0.000434***
	(0.000156)	(0.000158)	(0.000167)	(0.000157)	(0.000164)
Method of payment	0.476	0.441	0.440	0.519	0.508
	(1.012)	(1.000)	(1.006)	(1.004)	(1.010)
Institutional differences			0.115		0.0796
			(0.312)		(0.312)
Acquirer CSR x Institutional differences			-0.0135		-0.0123
			(0.0111)		(0.0111)
Cultural differences				-0.0137	-0.0126
				(0.0210)	(0.0211)
Acquirer CSR x Cultural differences				0.00132*	0.00129
				(0.000797)	(0.000793)
Year trend	-0.110	-0.111*	-0.110*	-0.101	-0.101
	(0.0669)	(0.0664)	(0.0661)	(0.0660)	(0.0658)
Constant	1.457	1.654	1.546	1.908	1.816
	(1.054)	(1.092)	(1.186)	(1.205)	(1.283)
Observations	545	545	545	545	545
R-squared	0.028	0.028	0.030	0.034	0.035

[a] N = 545. Unstandardized regression coefficients are reported with standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

References

Aguinis, H., & Glavas, A. (2012). What we know and don't know about corporate social responsibility: A review and research agenda. *Journal of Management*, *38*(4), 932-968.

Aiken, L. S., West, S. G., & Reno, R. R. (1991). *Multiple regression: Testing and interpreting interactions*: Sage.

Aktas, N., De Bodt, E., & Cousin, J.-G. (2011). Do financial markets care about SRI? Evidence from mergers and acquisitions. *Journal of Banking & Finance*, *35*(7), 1753-1761.

Aybar, B. & Ficici, A., (2009). Cross-border acquisitions and firm value: An analysis of emerging-market multinationals. *Journal of International Business Studies,* 40**,** 1317-1338.

Barney, J. B. & Hansen, M. H., (1994). Trustworthiness as a source of competitive advantage. *Strategic Management Journal, 15,* 175-190.

Beugelsdijk, S., Kostova, T., Kunst, V., Spadafora, E., & Van Essen, M. (2018). Cultural distance and firm internationalization: A meta-analytical review and theoretical implications. *Journal of Management*, *44*(1), 89-130.

Bhagat, S., Malhotra, S., & Zhu, P. (2011). Emerging country cross-border acquisitions: Characteristics, acquirer returns and cross-sectional determinants. *Emerging Markets Review*, *12*(3), 250-271.

Boubakri, N., El Ghoul, S., Wang, H., Guedhami, O. & Kwok, C. C., (2016). Cross-listing and corporate social responsibility. *Journal of Corporate Finance*, 41, 123-138.

Brammer, S. J., & Pavelin, S. (2006). Corporate reputation and social performance: The importance of fit. *Journal of Management Studies, 43*(3), 435-455.

Cheng, B., Ioannou, I., & Serafeim, G. (2014). Corporate social responsibility and access to finance. *Strategic Management Journal, 35*(1), 1-23.

Cochran, P. L., & Wood, R. A. (1984). Corporate social responsibility and financial performance. *Academy of Management Journal, 27*(1), 42-56.

Datta, D. K., Pinches, G. E., & Narayanan, V. K. (1992). Factors influencing wealth creation from mergers and acquisitions: A meta-analysis. *Strategic Management Journal, 13*(1), 67-84.

Deng, X., Kang, J., & Low, B. (2013). Corporate social responsibility and stakeholder value maximization: Evidence from mergers. *Journal of Financial Economics*, *110*(1), 87-109.

Dhaliwal, D., Li, O., Tsang, A., & Yang, Y. (2011). Voluntary nonfinancial disclosure and the cost of equity capital: The initiation of corporate social responsibility reporting. *The Accounting Review*, *86*(1), 59-100.

Fombrun, C., & Shanley, M. (1990). What's in a name? Reputation building and corporate strategy. *Academy of Management Journal, 33*(2), 233-258.

Goergen, M., & Renneboog, L. (2004). Shareholder wealth effects of European domestic and cross-border takeover bids. *European Financial Management, 10*(1), 9-45.

Gomes, M., & Marsat, S. (2018). Does CSR impact premiums in M&A transactions?. *Finance Research Letters*, *26*(1), 71-80.

Haleblian, J., Devers, C. E., McNamara, G., Carpenter, M. A., & Davison, R. B. (2009). Taking stock of what we know about mergers and acquisitions: A review and research agenda. *Journal of Management, 35*(3), 469-502.

Hayward, M. L. (2002). When do firms learn from their acquisition experience? Evidence from 1990 to 1995. *Strategic Management Journal, 23*(1), 21-39.

Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions and organizations across nations.* Sage publications.

Husted, B. W., (2015). Corporate social responsibility practice from 1800–1914: Past initiatives and current debates. *Business Ethics Quarterly,* 25**,** 125-141.

Ioannou, I. & Serafeim, G., (2012). What drives corporate social performance? The role of nation-level institutions. *Journal of International Business Studies,* 43**,** 834-864.

King, D. R., Dalton, D. R., Daily, C. M., & Covin, J. G. (2004). Meta-analyses of post-acquisition performance: Indications of unidentified moderators. *Strategic Management Journal, 25*(2), 187-200.

Laamanen, T., Brauer, M., & Junna, O. (2014). Performance of acquirers of divested assets: Evidence from the US. software industry. *Strategic Management Journal, 35*(6), 914-925.

Lev, B., Petrovits, C., & Radhakrishnan, S. (2010). Is doing good good for you? How corporate charitable contributions enhance revenue growth. *Strategic Management Journal*, *31*(2), 182-200.

Li, Z., Wang, P., & Kuo, J. M. (2019). Cross-Border Mergers and Acquisitions and Corporate Social Responsibility: Evidence from Chinese Listed Firms. *Working Paper.*

Liang, H. & Renneboog, L., (2017). On the foundations of corporate social responsibility. *The Journal of Finance,* 72**,** 853-910.

Malik, M. (2015). Value-enhancing capabilities of CSR: A brief review of contemporary literature. *Journal of Business Ethics*, *127*(2), 419-438.

Margolis, J. D., & Walsh, J. P. (2003). Misery loves companies: Rethinking social initiatives by business. *Administrative Science Quarterly, 48*(2), 268-305.

Martynova, M., & Renneboog, L. (2008). Spillover of corporate governance standards in cross-border mergers and acquisitions. *Journal of Corporate Finance*, *14*(3), 200-223.

McNamara, G. M., Haleblian, J., & Dykes, B. J. (2008). The performance implications of participating in an acquisition wave: Early mover advantages, bandwagon effects, and the moderating influence of industry

characteristics and acquirer tactics. *Academy of Management Journal, 51*(1), 113-130.

Neter, J., Wasserman, W., & Kutner, M. (1985). Applied linear statistical models: Regression, analysis of variance and experimental designs. Homewood, Illinois: Richard D. Irwin. *Inc., I, L27 p*.

Orlitzky, M., Schmidt, F. L., & Rynes, S. L. (2003). Corporate social and financial performance: A meta-analysis. *Organization Studies, 24*(3), 403-441.

Qiao, L., & Wu, J. (2019). Pay for being responsible: The effect of target Firm's corporate social responsibility on cross-border acquisition premiums. *Sustainability, 11*(5), 1291.

Roberts, P. W., & Dowling, G. R. (2002). Corporate reputation and sustained superior financial performance. *Strategic Management Journal, 23*(12), 1077-1093.

Tao, F., Liu, X., Gao, L., & Xia, E. (2017). Do cross-border mergers and acquisitions increase short-term market performance? The case of Chinese firms. *International Business Review, 26*(1), 189-202.

Tingley, D., Xu, C., Chilton, A., & Milner, H. V. (2015). The political economy of inward FDI: opposition to Chinese mergers and acquisitions. *The Chinese Journal of International Politics, 8*(1), 27-57.

Turban, D., & Greening, D. W. (1997). Corporate social performance and organizational attractiveness to prospective employees. *Academy of Management Journal*, *40*(3), 658-672.

Waddock, S., & Graves, S. (1997). The corporate social performance–financial performance link. *Strategic Management Journal*, *18*(4), 303-319.

Xie, E., Reddy, K. S., & Liang, J. (2017). Country-specific determinants of cross-border mergers and acquisitions: A comprehensive review and future research directions. *Journal of World Business, 52*(2), 127-183.

Zhou, N. & Guillén, M. F., (2015). From home country to home base: A dynamic approach to the liability of foreignness. *Strategic Management Journal,* 36**,** 907-917.

Julian Gabler

Date of birth: October 4th, 1985

Education

Since 02/2011	University of St. Gallen, St. Gallen, Switzerland Doctoral studies in Strategy & Management
07/2012-08/2012	University of Michigan, Ann Arbor, USA ICPSR Summer Program in Quantitative Methods
09/2009-02/2011	University of St. Gallen, St. Gallen, Switzerland Graduate studies in Banking & Finance
01/2010-04/2010	Rotman School of Management (University of Toronto), Toronto, Canada Visiting MBA student
10/2005-02/2009	University of St. Gallen, St. Gallen, Switzerland Undergraduate studies in Business Administration
01/2008-06/2008	Harvard University, Cambridge, USA Visiting undergraduate student
07/2006	London School of Economics and Political Science (LSE), London, United Kingdom Summer school in Competitive Strategy and Game Theory