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Value creation drivers in a secondary buyout – the acquisition of Brenntag by BC Partners

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Abstract

Purpose – The purpose of this paper is to identify specific drivers of value creation in secondary buyouts. While this type of private equity deal has risen in importance in recent years, it is not yet well understood. Through an in-depth analysis of the acquisition of Brenntag by BC Partners, we develop propositions on the value creation profile of secondary buyouts.

Design/methodology/approach – We use a single case study design to explore the information-rich context of a secondary buyout. The Brenntag case epitomizes the development of a company from forming part of a large conglomerate to being private-equity owned after the primary and secondary buyout, to its final disposition of public listing. Our analysis is based on ten semi-structured interviews with key protagonists and observers, as well as analysis of primary company data and additional secondary data sources.

Findings – We propose that even if the investment management and monitoring skills of the primary and secondary private equity group are similar, there is still potential to realize operational improvements in a secondary buyout, due to either early exit of the primary private equity group or measures that further enhance management incentives. In addition, the Brenntag case shows that low information asymmetries can lead to higher leverage and that opportunities for multiple expansions are limited in secondary buyouts.

Originality/value – While a secondary buyout has become a common exit route in recent years, we are the first to undertake an in-depth case analysis of a secondary buyout. Our study helps researchers and practitioners enhance their understanding of drivers behind the value creation profile of secondary buyouts.

Keywords Value creation, Private equity, Secondary buyouts

Paper type Research paper

JEL classification – G11, G24, G34

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1. Introduction

In recent years, the private equity value creation framework has been the focus of researchers and practitioners alike. Three drivers are commonly distinguished, namely, operational performance improvement, leverage and multiple expansion (Kaplan and Strömberg, 2009). A large body of theoretical and empirical work has analyzed the mechanics and impact of each of these drivers (Acharya *et al.*, 2011; Achleitner *et al.*, 2011; Achleitner *et al.*, 2010a), and an increasing focus has emerged by private equity groups on operational value creation. This trend can be explained by the increased maturity of the private equity market over the last decade and, hence, the improved investment management capabilities of private equity sponsors. Further, access to debt markets has been restricted due to recent turbulences on the financial markets. The traditional value creation strategies of *financial engineering* and *buy low–sell high* have hence lost importance. Simultaneously, secondary buyouts emerged as an important deal source in the mid-2000s boom period of private equity, then accounting for approximately one-quarter of all deals conducted (Strömberg, 2008). Since then, secondary buyouts continue to constitute an important deal source (Preqin, 2011). These two trends appear to stand in conflict: a private equity investor is commonly assumed to exit an investment once the marginal return equals or is lower than the marginal cost of its value creation efforts (Cumming and MacIntosh, 2003). Because both the buyer and seller in a secondary buyout are generally assumed to rely on the same set of value creation tools, it is unclear how the second private equity fund can continue to create value and generate attractive equity returns.

Research on secondary buyouts mirrors the increasing importance of secondary buyouts in recent years. While early research on private equity largely neglected secondary buyouts as an alternative deal source, more recently scholars have undertaken quantitative empirical analyses of secondary buyouts based on large data sets. Current findings on value creation in secondary buyouts from these studies can be summarized as follows. First, secondary buyouts provide similar potential for operational performance improvement as primary buyouts (Achleitner and Figge, 2012; Wang, 2012). Second, more leverage is used in secondary than in primary buyouts (Achleitner and Figge, 2012). Finally, secondary buyouts are more expensive than primary buyouts, which limits opportunities for further multiple expansion, *ceteris paribus* (Achleitner and Figge, 2012; Kitzmann and Schiereck, 2009; Wang, 2012).

The literature thus far can only speculate as to what determines the specific value creation profile of secondary buyouts. To address this research gap, we undertake a detailed case analysis of the secondary buyout of Brenntag. Our aim is to extend and complement the current knowledge on value creation in secondary buyouts and to answer the following research questions:

RQ1. In circumstances of similar investment management capabilities of the primary and secondary private equity group, what are the reasons behind further operational improvements in a secondary buyout?

RQ2. How can the secondary private equity group reach higher leverage in a secondary buyout?

RQ3. Why are the opportunities for multiple expansion limited in a secondary buyout?

We use the case of Brenntag to analyze these questions in a distinct contextual setting. BC Partners, an international private equity investor, purchased Brenntag from the international private equity group Bain Capital in 2006, which itself had purchased the company from Deutsche Bahn in 2003. The transaction then constituted the largest private equity transaction in Germany. Using ten in-depth interviews with investors, the management of Brenntag, advisors involved in the transaction, and a business journalist, along with additional primary and secondary company data, we triangulate our findings on the sources of value creation in the transaction.

Based on our case analysis, we develop propositions helpful to consolidating our main findings and to giving direction for future research on secondary buyouts. Even though we cannot generalize from the analysis of a single case and further quantitative research is required to confirm our findings, the Brenntag case nonetheless is helpful to understanding the contextual drivers of value creation in a secondary buyout. Private equity sponsors can use our results to anticipate the levers in secondary buyouts that they should focus on to create additional value.

We find that continued operational performance improvements are achievable in a secondary buyout even if the skills and capabilities of the buying private equity firm are similar to those of the selling private equity firm. Private equity firms may decide to pursue an early exit, thereby leaving potential for further operational value creation after the secondary buyout. Further, our analysis of the Brenntag case shows that a positive effect due to enhanced management incentivization is achievable in the context of secondary buyouts through increased appreciation of the mechanics of the management package, greater capital commitments to the package and wider participation in it among managers. Further, we propose that the greater leverage in a secondary buyout can be explained via reduced informational asymmetries between the lender and the secondary private equity group. Fourth, the Brenntag case reveals that multiple expansions are difficult to realize in a secondary buyout because the selling private equity firm will use market timing and negotiation skills to maximize exit value.

The remainder of this paper is organized as follows. In Section 2, we review the current literature on secondary buyouts. Section 3 then describes our methodology. Section 4 describes the history of Brenntag, with a specific focus on the primary and secondary buyout. Section 5 presents our case analysis and develops research propositions on the value creation profile of secondary buyouts. Section 6 summarizes our conclusions.

2. Literature review

The value creation achieved in leveraged buyouts is usually split into three categories:

(1) operational performance improvements;

(2) leverage; and

(3) multiple expansion[1] (Kaplan and Strömberg, 2009).

Below, we present the limited theoretical and empirical evidence on the importance of each of these drivers in secondary buyouts.

Operational performance improvements in leveraged buyouts comprise measures that increase the cash flow of the portfolio company, namely, sales growth, margin expansion and streamlining of capital expenditures (capex) and working capital (Kaplan, 1989a). This is achieved by improved incentive alignment via increased managerial ownership (Muscarella and Vetsuypens, 1990; Leslie and Oyer, 2008), governance engineering through improved reporting procedures and active monitoring (Acharya *et al.*, 2011), or the provision of smart money and operational engineering by buyout executives (Kaplan and Strömberg, 2009; Sousa, 2010).

The potential for further operational improvement could be limited in secondary buyouts because improved incentive alignment and governance engineering is deemed to effect only a one-off step change in the performance of the portfolio company (Wright *et al.*, 2009). As this step change is usually already achieved in the primary buyout, further positive effects from greater incentives for management, as well as better governance, could be limited in a secondary buyout. Nonetheless, both Wang (2012) and Achleitner and Figge (2012) find no evidence that secondary buyouts show less improvement in operating performance. In the past, authors have argued that this continued operational value creation in secondary buyouts mainly stems from different skills among the primary and secondary private equity groups (Kitzmann and Schiereck, 2009; Sousa, 2010; Wang, 2012). A further driver is identified in the case study of New Look. Using a single case study methodology, Achleitner *et al.* (2010b) show that the owners of New Look pursued a secondary buyout to continue the company's growth strategy. During the primary buyout, the focus was on national expansion of New Look, and the secondary buyout then afforded the opportunity to begin international growth (Achleitner *et al.*, 2010b). Within the New Look case study, the relevance of differing investment models and capabilities of New Look's primary and secondary private equity firms is not analyzed; hence, it is not possible to draw conclusions about specific value creation drivers in the secondary buyout. We tap into this research gap and use the case study of Brenntag to explore the underlying drivers of operational value improvement in a secondary buyout, taking into account contextual factors.

The use of leverage affects realized return in a private equity transaction in two ways. It positively affects cash flow generation due to the disciplining effect of debt (Jensen, 1989) and the tax shield (Kaplan, 1989b). The use of leverage helps to boost equity returns by increasing the financial risk of a transaction, as exemplified in the leverage formula first developed by Modigliani and Miller (1958). In secondary buyouts, leverage is thought to be one of the main value creation drivers. Achleitner and Figge (2012) find that leverage is 28-30 per cent higher in secondary buyouts compared to primary buyouts. However, research has thus far not analyzed how the secondary private equity group can achieve higher leverage in a secondary buyout; we use the Brenntag case to address this research question.

Multiple expansion is the third value creation driver in private equity buyouts. According to Achleitner *et al.* (2011), two main factors drive multiple expansion. First, market timing skills, commonly referred to as buy low–sell high strategy, and second, the negotiation skills of the private equity firm purchasing a target company. Research shows that secondary buyouts occur at higher valuations than primary buyouts, which *ceteris paribus* leads to reduced potential for further multiple expansion in secondary buyouts (Achleitner and Figge, 2012, Wang, 2012). Kitzmann and Schiereck (2009) find that secondary buyouts as an exit alternative deliver valuations that are comparable to trade sales. However, these authors do not analyze secondary buyouts as a deal source and, hence, are not able to draw conclusions as to the return potential for the secondary private equity firm. The Brenntag case offers an opportunity to explicitly analyze the perspective of the buying private equity firm and the drivers behind the limited opportunities for multiple expansions in secondary buyouts.

3. Methodology

Our study is based on a single-case study methodology (Siggelkow, 2007). We choose the Brenntag case for theoretical rather than statistical reasons (Eisenhardt, 1989). With Brenntag, we are able to show development of a company from being part of a large conglomerate to coming under private equity ownership during the primary and secondary buyout, and through exit of the second private equity sponsor via an initial public offering (IPO). This full cycle of company development allows us to gain in-depth insight on the levers of value creation in the primary and secondary buyouts.

Using a qualitative case study approach, the points of view of different parties can be exposed and a deep understanding of local contextualization can be derived (Miles and Huberman, 1994). We use evidence from multiple sources to strengthen our case study (Yin, 2003). First, we screen and collect publicly available information on Brenntag's history, including the primary and secondary buyout (e.g. using company Web sites, Google searches, and databases such as LexisNexis and Genios). We then undertook in-depth, semi-structured interviews with key protagonists and external parties:

- Stephen Clark[2], member of the supervisory board at Brenntag.
- Georg Müller, Corporate Finance & Investor Relations at Brenntag.
- Stefan Zuschke, Managing Partner at BC partners.
- Torsten Mack, Principal at BC partners.
- Dr Michael Siefke, Managing Director at Bain Capital.
- Dr Nils Koffka, Partner at Freshfields Bruckhaus Deringer.
- Dr Steffen Kastner, Managing Director at Goldman Sachs.
- Gerrit Frohn, Managing Director at Morgan Stanley.
- Karsten Hofacker, Executive Director at Morgan Stanley.
- Holger Paul, Business Journalist at Frankfurter Allgemeine Zeitung.

The interviews lasted between 1 and 1.5 hours (total interview time: c. 13 hours) and centered on changes in company performance and leverage over time. In addition, motives for the two buyouts and IPO were discussed. The interviews were either taped or memorialized via extensive notes. We then transcribed each interview, which allowed us to analyze common patterns in the qualitative data. In addition to the interview data, we collected additional primary company data directly through either the company or the private equity groups. Our interpretations and conclusions are based on these multiple sources to prevent distortion due to an inaccurate interview or biased document. In fact, by undertaking interviews using largely the same questions with the private equity groups involved in the primary and secondary buyout, and management and other involved parties such as investment banks and lawyers, as well as having a business journalist as external observer, we were able to triangulate our results (Yin, 2003).

4. Case description

4.1 Brenntag: company history

The roots of Brenntag go back to 1874, when Philip Mühsam founded an egg-wholesale business in Berlin. A few years later, the business began to trade chemicals, and in 1912, chemical distribution was added as an additional line of business. By the mid-1930s, chemical distribution had become the core business, and in 1937, the business was acquired by the Stinnes family. After a lengthy restructuring process among the family, the company was acquired by their logistics company, Stinnes, in 1964, which itself was acquired by VEBA, an energy company, one year later.

In the late 1980s and throughout the 1990s, Brenntag laid the foundation for its present position as a global leader in chemical distribution through a large number of international acquisitions. In 2000, VEBA and Viag merged to become E.ON, today one of the largest energy companies in Germany. As part of a portfolio restructuring, E.ON decided to sell off non-core businesses. Consequently, Stinnes was put up for sale in 2002 and sold to transport giant Deutsche Bahn in early 2003. Because Deutsche Bahn was primarily interested in the logistics business of Stinnes, both Brenntag and the steel trading subsidiary Stinnes Interfer were subsequently put up for sale.

4.2 The primary buyout of Brenntag

Deutsche Bahn considered a variety of different exit options. However, because Deutsche Bahn preferred to sell both Brenntag and Stinnes Interfer at the same time, and given the carve-out nature of the transaction, there was no obvious strategic buyer for a trade sale, and an IPO would have required a lengthy preparation process. In addition, the still depressed state of the capital markets at the time further reduced the attractiveness of an IPO. Therefore, a sale to a private equity sponsor was, from the start, the most likely outcome. Initially, a number of large private equity investors, including Bain Capital, BC Partners, Blackstone, Carlyle, CVC Capital Partners and Kohlberg Kravis & Roberts showed interest. Yet, very soon the field of potential acquirers narrowed down for two reasons: First, the business model of chemical distribution was new to investors and potential financing banks. It was not yet understood that the chemical distribution industry differed from the cyclical chemical industry, or, in the words of Kastner, Managing Director at Goldman Sachs[3]:

> Especially from the debt side, Brenntag was not an immediately obvious investment opportunity. The chemical industry is very cyclical and Brenntag's EBITDA[4] margins were very low at around 5 per cent. We had no comparable company in our portfolio at the time and, therefore, it was a challenge to convince the investment committee that Brenntag presented an attractive investment […].

Second, according to press articles from that time, the carve-out of Brenntag from the Stinnes Group was complex due to technical risks associated with potential legacy liability risk in the US subsidiary of Brenntag. While price was certainly one key decision item in the auction, finding a solution to the technical problems associated with the carve-out was key to success. Because Bain Capital knew how to deal with these issues from other US investments and had significant experience with the distribution business model itself, it finally emerged as the winner of the auction process, and the acquisition of both Brenntag and Stinnes Interfer was signed at the end of 2003. As laid out in Panel A of Table I, Bain Capital purchased Brenntag for a total consideration of €1.25 billion, equivalent to a multiple of 5.4× EBITDA[5]. Bain Capital as the lead

	Primary buyout Entry December 2003	Primary buyout Exit July 2006	Secondary buyout Entry July 2006	Secondary buyout Exit March 2010	
Panel A - Deal metrics					
Enterprise Value (€ million)	1,250	3,020	3,020	3,900	
EV/EBITDA	*5.4*	*8.7*	*8.7*	*7.9*	
Net Debt (€ million)	980	2,150	2,250	1,830	
Net Debt/EBITDA	*4.2*	*6.2*	*6.5*	*3.7*	
Equity (€ million)	270	870	770	2,070	
Net Debt/Equity	*3.6*	*2.5*	*2.9*	*0.9*	
Panel B - Operating performance					
	FY 2003	FY 2006	FY 2010	Compound annual growth rate 2003-2006	Compound annual growth rate 2006-2010
Sales (€ million)	4,220	5,958	7,649	*12.2*	*6.4*
Gross profit (€ million)	974	1,170	1,636	*6.3*	*8.7*
Gross Profit/Sales (%)	*23.1*	*19.6*	*21.4*		
EBITDA (€ million)	235	331	598	*12.1*	*15.9*
EBITDA/Sales (%)	*5.6*	*5.6*	*7.8*		
EBITDA/Gross Profit (%)	*24.1*	*28.3*	*36.6*		
Capex (€ million)	113	88	85	*−8.0*	*−0.9*
Capex in % of Sales	*2.7*	*1.5*	*1.1*		
Panel C - Returns					
	Primary buyout		Secondary buyout		
IRR (%)	100[a]		27		
Money multiple	5.3		3.0		
Holding period	2.5		3.8		

Notes: This table presents in panel A the deal structure at entry and exit for the primary and secondary buyout; in Panel B, the operating performance of Brenntag under the ownership of Bain Capital and BC Partners is analyzed; *EBITDA* refers to earnings before interest, depreciation and amortization, and is a measure of operating profit; *Capex* refers to capital expenditures; [a] return measures include recaps in 2004 and 2005

Table I.
Brenntag primary and secondary buyout

investor, Goldman Sachs and the management team together invested around €270 million in equity, the remainder was financed by debt capital, equivalent to a multiple of 4.2× EBITDA.

Bain Capital’s investment rationale was based on four main premises: First, Brenntag’s business model was inherently downside-protected. Besides its broad diversification across customers, products and regions[6], the high level of working capital provided for a counter-cyclical positive cash impact, as Kastner explained:

> It is simple math: with an EBITDA margin of 6 per cent and a working capital-to-sales ratio of 12 per cent, I gain two dollars in working capital reduction for every dollar in lost EBITDA. At least in the first year […].

Accordingly, Brenntag's business proved to be less cyclical than initially anticipated. With a focus on maintaining a stable absolute gross profit per ton independent of the price fluctuations of the distributed products, the company actually managed to decouple from chemical industry cyclicality to some extent.

Further, with Brenntag having been a subsidiary of a large conglomerate for almost 40 years, refocusing the business on operational efficiency provided ample room for improvement, both in terms of profitability and cash management. In addition, Brenntag as the global market leader in chemical distribution fit well within the traditional investment focus of Bain Capital on market leading companies. Finally, the global market for chemical distribution was still very fragmented. Brenntag as the global market leader had a market share below 7 per cent and the top five players had a combined market share of less than 18 per cent (Elser *et al.*, 2010). Hence, opportunities for further industry consolidation remained.

The management incentive scheme involved 80 Brenntag employees from senior and middle management, yet the focus was on top management, which comprised four managers: Dr Klaus Engel, Chief Executive Officer (CEO); Jürgen Buchsteiner, Chief Financial Officer; Daniel Pithois, Head of Brenntag Europe; and Stephen Clark, President of Brenntag North America. Engel joined Stinnes in 1998 and the management board of Brenntag in 1999. Shortly thereafter, in 2000, Buchsteiner joined Brenntag's management board. Both had long-term management and industry-specific experience from various management positions at chemical distribution or chemical production companies. Clark began his employment at Brenntag in 1981 and became a member of the management board in 1993. Although the potential earnings from the management package in case of a successful sale of the company exceeded the standard remuneration consisting of salary, pension and performance bonus, management focused in their negotiations on the terms of the latter, or in the words of Siefke, Managing Director at Bain Capital[7]:

> Management focused on salary, bonus, pension, and company car rules. And then came the equity stake. They were cautious about the potential outcomes that were linked to the management package […].

Upon closing the transaction in March 2004, Bain Capital initiated a strategy review with the help of management consulting firm McKinsey & Company. As a result, two main goals were defined for the period under Bain Capital ownership: First, the aim was to increase the organic growth trajectory of the business by capturing a larger share of outsourced distribution from chemical producers and focusing on growth industries, such as food and pharmaceuticals. Second, by re-activating Brenntag's acquisition strategy, which had been dormant since the acquisition of Holland Chemical International in 2000, the company aimed to achieve above-market growth rates. Holland Chemical International was roughly half the size of Brenntag and the company had to go through a rather intense integration process, particularly in the USA but also in Europe. According to Siefke:

> It took them about one-and-a-half years to integrate Holland Chemical International. After this lengthy process, management was very tired of pursuing acquisitions and they were initially skeptical about further M&A (mergers and acquisitions) activities. They questioned what could be next after such a huge and successful acquisition […].

Additionally, after the sale to Deutsche Bahn in 2002, the focus turned to finding a buyer for Brenntag; hence, no further acquisition activities were initiated. Because acquisitions constituted an important part of Bain Capital's value creation strategy, Bain Capital advised on the systemization of the M&A process at Brenntag, including an expansion of Brenntag's M&A department and introduction of a standard investment appraisal process. The reinvigorated focus on M&A also manifested itself in detailed discussions at every board meeting. As Siefke recalled:

> During the board meetings, we spend about one-third of the time on the financial performance and two-thirds on organic growth initiatives and M&A […].

Finally, Bain Capital focused on improving operational effectiveness with a specific focus on reducing capex. At the time of the acquisition in 2003, Brenntag's capex amounted to €113 million, which was approximately three times higher than at the slightly smaller competitor Univar[8]. According to Kastner:

> Brenntag invested way more than they needed to maintain their asset base, all their plants were gold plated […].

The figures in Panel B of Table I, which illustrates the operating performance of Brenntag during the Bain Capital ownership period, show that these strategic goals were successfully implemented. Capex of Brenntag was reduced from 2.7 per cent of sales in 2003 to 1.5 per cent of sales in 2006, or a reduction of €25 million in absolute terms, despite strong growth in sales and EBITDA. Brenntag achieved average sales growth of 12.2 per cent per annum and, more importantly, gross profit grew by 6.3 per cent per annum and EBITDA by 12.1 per cent per annum[9]. One of the main drivers of this performance was the 10 acquisitions undertaken under Bain Capital's ownership, as displayed in Panel A of Table II. Standing alone, these ten acquisitions generated cumulative sales of c. €700 million or over 15 per cent of Brenntag's 2003 sales, or around 40 per cent of the absolute increase in Brenntag sales over the period 2003-2006.

After having completed two recapitalizations in 2004 and 2005 to take advantage of the improved financing environment, Bain Capital began to discuss a potential exit of its investment in the second half of 2005. At the time, there were numerous successful investments in the respective Bain Capital funds. Because it is in the interest of private equity funds to maintain appropriate diversification of exits across time and to thereby achieve a relatively stable cash distribution profile (Strömberg, 2008), Bain Capital decided to sell Brenntag. However, the decision was based on a long internal discussion considering the trade-off between current valuation levels and further value creation potential in Brenntag. According to Siefke:

> Our European fund looked fantastic on paper and we wanted to show an exit. You risk looking very stupid if you fail to realize an investment that promised to be great value. However, the issue was fiercely debated in the investment committee and deal team […].

In terms of the exit route, a trade sale was deemed unlikely because a horizontal merger with one of the large competitors such as Univar or Ashland would not be allowed by competition authorities, and a vertical acquisition by a chemical producer was unrealistic, given the ongoing trend toward outsourced chemical distribution. While an IPO was initially contemplated, the choice fell to a secondary sale to another private equity investor. In 2006, the leverage markets were strong such that a secondary sale was more competitive than an IPO in terms of valuation. Further, such a sale would allow Bain

Company	Country	Region	Sales prior to acquisition (€ million)
Panel A - Acquisitions under Bain Capital Ownership			
2004			
Orlen Polimer	Poland	Eastern Europe	n/a
Aquacryl/Chemacryl	UK	Western Europe	12
2005			
South Texas Oil and Gas	USA	North America	n/a
Especialidade Puma	Spain	Southern Europe	n/a
Chem-On	Switzerland	Western Europe	11
Quadra Chemicals	USA	North America	66
Group Alliance		Africa	12
2006			
LA Chemicals		North America	139
Albion Chemicals Group		Europe	276
Schweizerhall Chemie		Europe	140
Total Number of Acquisitions	10		
Total Acquired Sales (€ million)	c. 700		
Total Acquired EBITDA (€ million)	c. 50		
Panel B - Acquisitions under BC Partners Ownership			
2006			
Wil-Chem Speciality Chemicals	Canada	North America	n/a
2007			
St. Lawrence Chemical	Canada	North America	87
Ulrich Chemcial	USA	North America	70
Natural World	Italy	Southern Europe	n/a
Abaci	Turkey	Middle East	n/a
2008			
Schoofs	USA	North America	n/a
BASF Distribution Center	Mexico	North America	n/a
Yara Chemical Distribution Division	Sweden	Northern Europe	n/a
Dipol Chemical International	Ukraine	Eastern Europe	68
C.N. Schmidt	The Netherlands	Western Europe	n/a
Rhodia	Several	Asia-Pacific	56[a]
Inquimex	Argentina	Latin America	n/a
Aeromaster	Turkey	Middle East	n/a
Trend Gida	Turkey	Middle East	n/a
2009			
Austro	Mexico	North America	n/a
CH Chemicals	South Africa	Africa	n/a
East-Chem	Canada	North America	n/a

(*continued*)

Table II. Acquisitions undertaken in primary and secondary buyout

Company	Country	Region	Sales prior to acquisition (€ million)
2010			
EAC	Several	Asia Pacific	220
HCC industrial solvents division	USA	North America	23
Metausel	France	Western Europe	n/a
Productos Riba Food & Water Treatment Division	Spain	Southern Europe	11
Total number of acquisitions	21		
Total acquired sales (€ million)	c. 500		
Total acquired EBITDA (€ million)	c. 35		

Notes: This table presents acquisitions undertaken by Brenntag under ownership of Bain Capital and BC Partners, respectively; for BC Partners, all acquisitions until the end of 2010 are considered; [a] distribution sales only, in addition Rhodia acts as sales agent for third parties; these commission sales amount to c. €200 million

Table II.

Capital to fully realize its investment immediately. Therefore, Bain Capital initiated a mini-auction among a number of private equity groups in late 2005. However, because none of these met Bain Capital's reserve price, the mini-auction was quickly abandoned.

4.3 The secondary buyout of Brenntag

Despite its early withdrawal from the first process in 2003, BC Partners closely followed the evolution of Brenntag under the ownership of Bain Capital and stayed in touch with the management team. Yet, when Bain Capital invited BC Partners to the mini-auction, they declined to participate because they deemed the three weeks allotted for due diligence inadequate. However, once the mini-auction was abandoned, BC Partners decided to approach Bain Capital in early 2006 to negotiate a valuation and term sheet based on which Bain Capital would be willing to sell Brenntag. Subsequently, BC Partners commenced the due diligence process and on July 25, 2006, the transaction, which valued Brenntag at €3.02 billion[10] (equivalent to 8.7× EBITDA[11]) was signed. Because the valuation was pre-agreed and BC Partners had access to up-to-date due diligence material from the recapitalization in late 2005, the transaction was signed after a period of only six weeks. The total equity capital invested in this transaction amounted to €850 million[12], pooled in Brachem Acquisition S.C.A., of which BC Partners contributed 82 per cent, with the remainder from Bain Capital, Goldman Sachs and Brenntag's management team. Bain Capital reinvested €80 million, which served as a signal to the acquirer that they saw continued value creation potential, or in the words of Siefke:

> We really wanted the Brenntag reinvestment. We still thought it was a very good asset […].

The remainder of the transaction was financed with debt capital, amounting to 6.5× EBITDA.

BC Partners' investment rationale centered on continuation of the growth path initiated under Bain Capital ownership, driven by further consolidation of the still-fragmented chemical distribution market. In 2006, Brenntag's market share was still only 6.9 per cent (Elser *et al.*, 2010). Further, BC Partners was also attracted by Brenntag's significant downside-protection due to stable margins and the counter-cyclical cash effects from reduced working capital. Therefore, Brenntag was an ideal anchor investment for BC Partners' eighth fund, BCEC VIII, which was raised in 2005, or as Koffka, partner at Freshfields Bruckhaus Deringer[13], put it:

> Even for a large fund like BC Partners, Brenntag was a sizeable investment. However, it was not an overly risky investment and, therefore, this can serve to stabilize the fund from a portfolio management perspective […].

The secondary buyout overlapped with the departure of Engel, who had received an offer to become CEO of specialty chemicals company Degussa, which later became Evonik Industries. His decision to leave Brenntag was due to the attractive new opportunity on a professional and personal level, and was not driven by the private equity sponsor. Clark became new CEO of Brenntag and William Fidler was appointed President of Brenntag North America[14]. Further, Steve Holland joined the management board as Head of Brenntag Europe[15]. Holland had led Albion Chemical Group, which was acquired by Brenntag earlier in 2006. Negotiation of a management incentive scheme was a key priority for BC Partners. First, BC Partners pushed for a reinvestment of over 50 per cent of the proceeds that top management had earned in the initial buyout to ensure their continued motivation, which implied a significantly higher financial commitment of management in the secondary buyout. Second, they extended the broader management incentive package to 120 employees to reflect the importance of middle management in the decentralized organizational structure of Brenntag. Zuschke commented:

> Brenntag has a very decentralized business model and therefore it was very crucial to have the middle management such as the country heads, the sales team and the finance team on board. As soon as they realize what they can do to improve the valuation of their shareholding, they tackle topics in a different manner […].

BC Partners continued the strategic initiatives commenced under the ownership of Bain Capital, but for a slight change in the focus of the acquisition strategy: in the primary buyout, the majority of acquisitions were made in mature markets to increase local market share; now the focus turned to emerging markets such as Latin America and Asia (see Table II). Zuschke, Managing Partner at BC Partners[16], said:

> We changed the focus slightly, yet we did not change the strategy. Bain Capital did a great deal of groundwork […].

Further, in the advent of the financial crisis in 2008, Brenntag developed a contingency plan in close discussions with BC Partners, which involved various measures to reduce the cost base. According to Kastner, initiation of the contingency planning process was one of the "key value adding contributions of BC Partners". Finally, BC Partners initiated a capital increase of €40 million at the beginning of 2009 to ensure continued funding for Brenntag's acquisition strategy. This was received very positively by management, or as Müller, Head of Investor Relations at Brenntag[17], said:

> In the course of 2008, we were somewhat cash constrained when working capital increased due to a strong increase in chemical prices and mostly strong demand and we could not fully follow-up on our pipeline of acquisition candidates. As a reaction, BC Partners did a capital increase to support our growth strategy […].

Overall, operating performance at Brenntag continued to improve during BC Partners ownership, as the figures in Panel B of Table I illustrate. Brenntag achieved sales growth of 6.4 per cent, gross profit growth of 8.7 per cent and EBITDA growth of 15.9 per cent in the period 2006 to 2010. Acquisitions continued to be a strong growth driver, as shown in Panel B of Table II. Stand-alone, these 21 acquisitions generated cumulative sales of about €500 million, over 8 per cent of Brenntag's 2006 sales, or over 30 per cent of the absolute increase in Brenntag sales over the period 2006 to 2010. The regional split of these acquisitions shows that the new focus on emerging markets set by BC Partners was implemented. In particular, the acquisitions of Rhodia in 2008 and EAC in 2010 helped to establish Brenntag's presence in Asia, which was seen as an important strategic goal en route to a public listing. Brenntag capex was further reduced from 1.5 per cent of sales in 2006 to 1.1 per cent of sales in 2010 and stayed constant in absolute terms.

4.4 The IPO

Potential exit scenarios for Brenntag were initially discussed in mid-2009. A trade sale was unlikely for the same reasons as in 2006. Zuschke commented:

> There was no natural fit. Brenntag's business is so unique that there is no spot for it in another company's supply chain […].

Similarly, a tertiary buyout was highly unlikely given the sheer size of the company. Due to the depressed state of the leveraged loan markets at that time, it would have been impossible to obtain debt financing of such a transaction, as Frohn, Managing Director of Morgan Stanley[18], explained:

> The leverage loan markets were basically non-existent in 2009/10. Since most of the Brenntag debt was syndicated, a mere roll-over of the debt was an impossible task. Similarly, it was impossible to build a new lending consortium for a €2bn loan during that time […].

Preparations for an IPO were started in late 2009, and on March 29, 2010, Brenntag was successfully listed on the Frankfurt stock exchange. Close to 15 million shares, consisting of a capital increase of 10.5 million shares and 4.45 million shares from existing shareholders, were sold at a price of €50 per share, valuing the company at €3.9 billion (equivalent to 7.9× EBITDA). This reduced the shareholding of the Brachem Acquisition S.C.A. to 71.0 per cent. Initially, a larger sell-down was envisaged, yet, because the valuation was at the lower end of BC Partners' price expectation and the market environment was far from ideal, the proportion of existing shares to be sold in the IPO was reduced. Koffka recollects:

> In the end, the decision whether to proceed with the IPO was on the brink. BC Partners then decided to go through with it, but reduced the stake significantly. This was very clever: now they had a liquid asset and the subsequent share price performance proved them right […].

BC Partners' decision to go ahead with the IPO was driven by the fact that at the time of the IPO they already held the investment for close to four years, which is a typical holding period for private equity investments (Strömberg, 2008). In addition, they took into account the positive effect this (partial) exit might have had on the fundraising of the ninth fund, BCEC IX, the first closing of which was held in March 2011. Zuschke comments:

> We started preparations for fundraising in 2009, and this definitely had a big impact on our decision when to exit Brenntag. Many of our investors had suffered in the crisis and would only invest again if money from the prior fund was disbursed […].

Subsequently, Brachem Acquisitions S.C.A. reduced its shareholding to 49.6 per cent by selling further shares at a price of €60.75 on October 1, 2010. On January 19, 2011, Brachem Acquisition S.C.A. sold a further 7 million shares at a price of €71.50, thereby reducing its stake to 36 per cent. Subsequently, Brachem Acquisitions S.C.A. reduced its shareholding to c. 27.3 per cent in January 2012, selling 4.5 million shares at a price of €70.00. In February 2012, it then further reduced its shareholding to 13.7 per cent, selling 7 million shares at a price of €82.50. Finally, on July 5, 2012, Brachem Acquisitions S.C.A. sold its remaining shareholding at a share price of €89.00.

When considering overall equity returns of both transactions, it becomes clear that each transaction was successful in its own respect. Bain Capital realized an internal rate of return (IRR) of over 100 per cent, equivalent to a money multiple of 5.3 times, in a very short holding period of only 2.5 years, while BC Partners achieved an equity IRR of 27 per cent, equivalent to a money multiple of 3.0 times, over a holding period of 3.8 years. Accounting for the differences in transaction size and the macroeconomic environment, both transactions can be deemed very successful. Frohn commented:

> Bain Capital realized over 5x money, which is very good for the first large transaction in Germany […]. BC Partners bought the company around the peak of the market and then barely scraped by to do the IPO in March 2010 when the markets were very volatile. They still made close to three times money, which is fantastic for such a large transaction […].

5. Case analysis and development of propositions

In this section, we discuss quantitative and qualitative findings from our analysis of the Brenntag case. Table I presents a variety of variables to analyze the following value creation categories: operational performance improvement, leverage and multiple expansion. We build on these quantitative measures to compare value creation in the primary and secondary buyout of Brenntag. However, we go beyond a quantitative comparison and analyze contextual factors that led to these value creation outcomes. Our aim is to understand the specific drivers of value creation in the secondary buyout of Brenntag. Based on the case analysis, we then develop propositions on the value creation profile of secondary buyouts to guide future research in this field.

5.1 Operational performance improvements

The Brenntag case offers an interesting setting to delve deeper into explaining operational improvements in secondary buyouts. Because both Bain Capital and BC Partners constitute two large international, generalist private equity firms[19] with no clear differentiation in terms of general investment approach or industry focus, different skills are unlikely to be the main source of continued operational performance improvement. Holger Paul, Business Journalist at Frankfurter Allgemeine Zeitung, commented:

> Different skillsets between the primary and secondary buyout firm are likely in case a small- or mid-cap buyout fund sells to a large-cap fund. But Bain Capital and BC Partners both are

> large-cap funds with similar investment models. Both of them had strong firepower to drive Brenntag's development forward […].

All interviewees agreed that BC Partners continued the investment strategy developed under the ownership of Bain Capital. Frohn recalled:

> Overall, BC Partners continued where Bain Capital had stopped. The management of Brenntag was very much focused to generate operational value over several financing rounds and across different financial sponsors […].

Therefore, the Brenntag case offers the opportunity to gain further insight on drivers of operational value creation in secondary buyouts when the capabilities and strategies of the primary and secondary private equity groups are similar. We find that in the primary buyout, an average annual growth in gross profits of 6.3 per cent was achieved, while in the secondary buyout, gross profits increased by an annual average of 8.7 per cent (see Table I). To further examine operational performance, we consider two additional variables to analyze profitability growth and cash flow improvement. We use *EBITDA growth* over the holding period of the investment to analyze improvements both in growth and profitability. Our results show that annual EBITDA growth was strong, both in the primary buyout (12.1 per cent) and in the secondary buyout (15.9 per cent)[20]. A more granular analysis of sales growth and EBITDA margin improvements is not meaningful in the case of Brenntag, as sales growth is affected by fluctuations in chemical prices and sales volumes are not publicly reported by the company.

Further, we use *delta capex in per cent of sales* as a measure for cash flow improvement in the primary buyout (−1.2 per cent) and the secondary buyout (−0.4 per cent). In the primary buyout, cash flow improvement by reducing capex, which had a positive impact on the debt capacity and valuation of Brenntag, were a key value driver, as initially envisaged by Bain Capital. It is important to note that the reduction in capex by no means compromised Brenntag's capacity to grow, but was rather the result of a more diligent investment approach with an increased focus on return on capital. In the secondary buyout, most of the operational value improvements were achieved from EBITDA growth. Acquisitions played a key role under both Bain Capital and BC Partner ownership. Even though a smaller number of acquisitions were realized in the primary buyout (10 versus 21), the size of these acquisitions was on average larger, with total acquired sales of c. €700 million compared to c. €500 million in the secondary buyout (see Table II).

For Brenntag, it is clear that continued operational performance improvements were achieved in the secondary buyout. We identify two general explanations for this continued operational value creation. First, Brenntag continuously strove to improve its operational performance and faced ever new challenges from a changing market and competitive environment. If a company offers no growth prospects beyond exit, this will be reflected in a low exit valuation, as valuation is positively correlated with the company's future growth prospects. Siefke commented:

> There is no such thing as all operational improvement measures. Every company has to become better in a sense, they are ever-evolving units. Furthermore, you want to sell companies with continued growth prospects, since this drives your exit multiple and valuation […].

Second, one central reason for continued operational value creation in the absence of different skills among buyer and seller in the secondary buyout was the sale of Brenntag before having realized the operational value creation measures initiated in the primary buyout. In the literature on private equity value creation, it is argued that a private equity investor will seek an exit for an investment when the projected marginal value that the investor can still add is equal or lower than the projected marginal cost of that very value contribution (Cumming and MacIntosh, 2003). However, as in the case of Brenntag, private equity sponsors may sell a portfolio company before having realized the operational value creation initiatives (Achleitner and Figge, 2012; Sousa, 2010). This would then allow the secondary private equity sponsor to continue the operational improvements in the portfolio company with an approach similar to the primary private equity sponsor.

There are several reasons that may trigger such an early exit. First, private equity fund lifetime is typically limited to ten years (Kaplan and Schoar, 2005), which leads to an average holding period of around four years (Strömberg, 2008). Thus, a financial investor may be forced to sell an investment either because the fund approaches the end of its lifetime or because the time needed to realize the value creation potential exceeds the typical holding period. Second, an early exit by the primary private equity group may also be driven by the fundraising cycle. Private equity sponsors usually raise a new fund around the time when the investment period of the current fund, which is typically around five years (Kaplan and Strömberg, 2009), expires. Because performance of the current fund and, in particular, returns on realized investments is one of the key focus areas for limited partners in their due diligence, private equity sponsors may be inclined to sell early to generate a track record to facilitate fundraising (Sousa, 2010; Wang, 2012). Further, private equity sponsors try to achieve a stable cash flow profile (Strömberg, 2008) and are therefore limited in their holding period even when they are still well within the boundaries of fund lifetime.

The overall fund situation influenced Bain Capital's exit decision. As laid out in Section 4.2, Bain Capital wanted to exit investments to achieve an appropriate diversification of exits, thereby ensuring a steady stream of distributions to its investors. Further, Bain Capital saw continued value creation potential and therefore invested alongside BC Partners in the secondary buyout. Brenntag was, overall, in private equity ownership for seven years, longer than the typical private equity holding period.

Although, in the case of Brenntag, several interviews argued that the fundraising efforts for Bain Capital's global private equity fund in 2006 may also have played a role in the exit timing. According to Siefke, fundraising dynamics did not play a role, but Bain Capital intended to distribute some cash back to its investors, and this was one of the main drivers of the decision by Bain Capital to pursue the secondary buyout of Brenntag even though potential for operational improvement remained. Hence, we propose:

P1. Due to fund-level considerations, the primary private equity group may be inclined to exit the portfolio company prior to full realization of the initiated operational improvements, thereby leaving operational value creation potential for the secondary private equity group.

Considering our Brenntag findings, we propose to amend the widely accepted notion that improved incentive alignment through increased managerial ownership is achieved only in primary buyouts. First, incentive systems work only if they are fully understood in their mechanics and (monetary) impact. Second, the impact of incentive systems is positively correlated with the absolute and relative amount of financial resources invested and the expected rewards. In the primary buyout of Brenntag, management at first underestimated the effect of the management package and had relatively little resources to commit. By the time of the secondary buyout, management fully appreciated the intentions and rewards of the management package, illustrated by the more detailed and lengthy negotiation with BC Partners. Clark commented:

> While we knew in the first buyout that there will be a significant reward from the management package, but we were not really believing it, it was simply not that tangible. And then there was a significant financial reward, and therefore it may have had a greater impact in the second time […].

Further, after the successful primary buyout, they had significantly more financial resources to commit. Koffka commented:

> In a secondary buyout, private equity investors are therefore free to structure a management incentive scheme that not only involves significant upside, but also downside due to the investment by management. This makes incentivization much more effective […].

In contrast, if one assumes a declining marginal benefit from financial compensation, it becomes more difficult to incentivize management in a secondary buyout; they have already earned a significant financial reward in the first buyout. Therefore, it is key to require management to reinvest a sufficiently high share of the proceeds from the primary buyout in the secondary buyout. In Zuschke's words:

> It was a very important signal for us that management reinvested around half of their gross proceeds, which showed us that they believed in the continued value creation potential of Brenntag […].

In addition, the effect of the management package was further increased in the secondary buyout by including a larger group of middle managers in the general employee share ownership program. Müller recollects:

> Middle management level had realized during the first buyout that the employee share ownership program proved to be very attractive. Therefore, many of them pushed to be included in the program in the secondary buyout […].

Overall, we conclude with three propositions on the potential to enhance incentive alignment in a secondary buyout:

P2a. In a secondary buyout, management's incentive alignment can be enhanced through an increased appreciation of the mechanics of the management package by the management team, which can lead to operational value creation.

P2b. In a secondary buyout, management's incentive alignment can be enhanced through an increase in the financial commitment of the existing management team to the management package, which can lead to operational value creation.

P2c. In a secondary buyout, management's incentive alignment can be enhanced through an increase in the number of participants in the management package, which can lead to operational value creation.

5.2 Leverage

To analyze leverage in the case of Brenntag, we use two measures: *Net debt/EBITDA at entry* relates total net financial liabilities to EBITDA as a measure of the debt redemption capacity of the company (Demiroglu and James, 2010), while *net debt/equity at entry* is a measure of the financial risk a transaction can support. In line with Achleitner and Figge (2012), we find that, at 6.5× net debt/EBITDA, more leverage was granted in the secondary buyout, while the financial risk of the transaction measured was actually lower than in the secondary buyout, at 2.9× net debt/equity (see Table I).

Our interviews highlight that higher leverage is likely to be attributed to reduced informational asymmetries between the lender and the private equity group in a secondary buyout setting. The extent of such informational asymmetries is one of the key drivers of how much leverage a bank grants and under what conditions (Ivashina, 2009). Prior to the primary buyout of Brenntag, the lenders had to collect relevant information about the asset in a relatively short time-frame. Because the same lenders who were involved in the primary buyout also provided the loan in the secondary buyout, information asymmetries were lower. The banks could base their lending decision on detailed information collected since the primary buyout of Brenntag, as Frohn recollects:

> In a primary buyout, the credit officer has around two months to familiarize himself with the asset, while in a secondary buyout he has a much more detailed information set: a) the company's track record in operating with a highly levered capital structure for the past few years, b) due diligence information generated for the primary buyout, and c) due diligence information generated for the secondary buyout. It is logical that based on this information, he is likely to grant more leverage, or better terms, or both […].

Therefore, we develop the following proposition.

P3. In a secondary buyout, informational asymmetries between the lenders and the private equity group are lower than in a primary buyout, which leads to higher leverage ratios in secondary buyouts.

5.3 Multiple expansion

We find ample evidence in the Brenntag case for the argument that it is difficult to realize multiple expansion in a secondary buyout (Achleitner and Figge, 2012, Wang, 2012). We use the *delta enterprise value/EBITDA* to measure multiple expansions, which measures changes in relative valuation between entry and exit. A look at the deal metrics, as laid out in Panel A of Table I shows that multiple expansion contributed only to value creation in the primary buyout. That is, while Bain Capital managed to achieve a positive multiple expansion of 3.3, BC Partners had to cope with a multiple contraction of 0.8. Arguably, some of the multiple expansions achieved by Bain Capital was driven by improved cash flow generation from Brenntag's business model, once capex was streamlined. This improved the debt capacity of Brenntag and, therefore, had a positive impact on company valuation. Siefke recollects:

> We focused more on the EBITDA-capex multiple, a multiple that is often used as a cash flow proxy. Here, the multiple expansion that we achieved was far less pronounced. Therefore, one of the main drivers of the EBITDA multiple expansion was the reduction in capex […].

Comparing a secondary buyout to the other three predominant deal sources for private equity firms, namely, private-to-privates, corporate spin-offs and public-to-privates, it is clear that room for multiple expansion for the buyer should be lower in a secondary buyout. In both private-to-privates and corporate spin-offs, the seller arguably has less market timing and negotiation skills than in a secondary buyout, where the seller is a private equity firm. In public-to-privates, negotiation skills should be equivalent because the counterparty is "the market", which should lead to competitive pricing, yet market timing is left to the financial sponsor undertaking the transaction (Achleitner and Figge, 2012; Wang, 2012). Therefore, only in a secondary buyout does the counterparty have both market timing and negotiation skills similar to those of the prospective buyer; therefore, room for multiple expansions should be lower, as it is driven by higher entry valuation.

Bain Capital exercised both its market timing and negotiation skills in the sale of Brenntag to BC Partners in 2006. First, Bain Capital timed the sale at around the peak of the leveraged finance markets. In addition, in neither the mini-auction initiated at the end of 2005 nor the negotiation with BC Partners did Bain Capital show any willingness to compromise on their reserve price. Frohn recalls:

> Bain sold more or less on the peak of the market and their demands in terms of valuation were ambitious and non-negotiable […].

Therefore, we formulate the following proposition.

P4. In a secondary buyout, the negotiation and market timing skills of the seller and the buyer are similar, which reduces the opportunity to realize multiple expansion.

6. Conclusion

The case of Brenntag, the largest (secondary) buyout in Germany at the time, provides an information-rich context to analyze the drivers behind the value creation profile of secondary buyouts and thereby helps researchers and practitioners to understand the rationale for this increasingly important buyout form. The main findings from our case analysis of the levers of value creation in the secondary buyout of Brenntag are summarized in Figure 1.

With respect to operational value creation, our analysis shows that continued operational performance improvements can be an important source of value creation, even if the buyer does not possess skills and capabilities different from the seller. The primary private equity group may pursue an exit before the marginal benefit equals or is lower than the marginal cost of an investor's value creation efforts, thereby leaving the potential for further operational value creation after the secondary buyout. The seller may have to exit an investment early because the time needed to carry out the operational improvement measures exceeds the typical private equity holding period. Further, the private equity group may decide to pursue an early exit to support its current fundraising efforts or to maintain a particular cash flow profile promised to its investors.

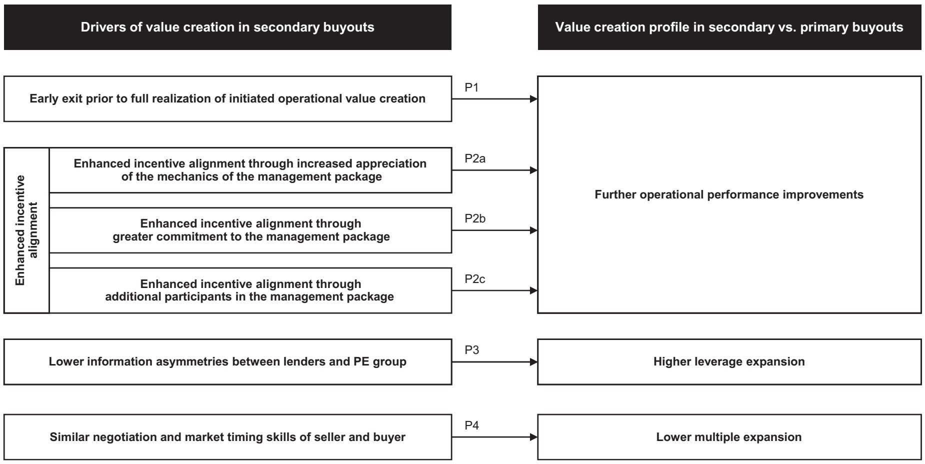

Figure 1.
Levers of value creation in the secondary buyout of Brenntag

Further, we propose that the positive effect of increased managerial ownership need not necessarily be of a one-off nature; the increased appreciation of the mechanics of the management incentive schemes used in private equity transactions, the greater financial resources of management, and the opportunity to increase the pool of managers participating in the scheme help to reinforce, if not increase, the impact of management incentivization and, therefore, governance engineering in a secondary buyout.

In addition, the Brenntag case shows that the greater amount of leverage granted in a secondary buyout can be attributed to reduced informational asymmetries between the lender and the secondary private equity group. Further, our analysis of Brenntag confirms that secondary buyouts are more expensive than primary buyouts and, consequently, the opportunities for multiple expansion are limited in such a setting. This is likely driven by the degree of seller sophistication in a secondary buyout – the selling private equity sponsor uses market timing and negotiation skills to maximize exit valuation.

Even though the Brenntag case offers detailed insight on the value creation profile of a specific secondary buyout, the limitations of our single case study design must be taken into account. It is not possible to generalize our findings, and further, larger-scale research is required to confirm our results. While empirical evidence based on large sample studies already shows operational value creation, higher leverage and less room for multiple expansion in secondary buyouts (Achleitner and Figge, 2012; Wang, 2012), the drivers of this value creation profile remain underexplored. Our propositions may help to kick-start further empirical research in this field, particularly on the motives behind pursuit of early exit and on measures to enhance incentive alignment.

Overall, the Brenntag case undermines the common notion that an IPO is superior to such cash exits as secondary buyouts or trade sales. Regarding the ranking among different exit choices, a pecking order of exit choices for private equity investments has emerged in the venture capital and broader private equity literature (Bienz and Leite, 2008; Cumming and MacIntosh, 2003; Cumming and Johan, 2008).

Here, an IPO is usually seen as the preferred exit channel for more successful deals, both due to superior returns (Schmidt *et al.*, 2010) and the associated positive reputation effects (Gompers, 1996); the next most popular preference is trade sale. Secondary buyouts have to date not been integrated into this framework. However, evidence from the Brenntag case suggests that, contrary to conventional wisdom, an IPO need not necessarily be the exit choice for a successful portfolio company. Siefke raised the notion of cash exits comprising both trade sales and secondary buyouts, where exit proceeds are realized in full upon closing of the transaction, while in an IPO, usually private equity investors only sell a small portion of their shareholding. Full realization of exit proceeds in the case of an IPO can take several years. In the case of Brenntag, Brachem Acquisition S.C.A. finally sold its remaining shareholding in July 2012, over two years after the IPO in March 2010. According the Siefke, the valuation risk associated with this long-tailed realization of exit proceeds (in this case an IPO), combined with the detrimental effect on the investment's IRR, render a cash exit often more attractive even if the valuation is lower than that achieved in the IPO. This would be a fruitful avenue for further research, that is, to examine the advantages of cash exits and to thereby challenge the commonly perceived exit pecking order.

Notes

1. See Achleitner *et al.* (2010a) for a detailed discussion of methodologies to analyze value creation in private equity deals.
2. Stephen Clark joined Brenntag in 1981 and was a Brenntag board member since 1993. He was Chief Executive Officer (CEO) at Brenntag from 2006 until 2011.
3. Goldman Sachs invested in the mezzanine and equity capital of Brenntag in both the primary and secondary buyouts.
4. EBITDA is Earnings before Interest, Tax, Depreciation and Amortization, a measure of operating profit.
5. This is based on the past 12 months EBITDA, measured from the time of signing the transaction.
6. Brenntag served over 160,000 customers with 10,000 products, and in 2011 commanded market-leading positions in Europe, North and South America, as well as Asia-Pacific.
7. Siefke was a Managing Director in Bain Capital's Munich office. He was part of the team that conducted the primary buyout in 2003 and represented Bain Capital on the board of Brenntag from 2005 until 2009.
8. Univar had capex of c. €30 million in 2003.
9. These results are based on the actual full-year results of Brenntag for 2006. Brenntag conducted three large acquisitions in 2006, as shown in Panel A of Table II. Including the full year effect of these acquisitions, Brenntag's sales for 2006 would have been €6,100 million, with gross profit of €1,280 million and EBITDA of €370 million.
10. Excluding transaction cost.
11. This is based on the last twelve months EBITDA adjusted for the acquisitions undertaken by Brenntag in the last twelve months prior to the acquisition.
12. The total equity capital consisted of €770 million in straight equity and €70 million to fund the transaction cost.

13. Koffka is a Partner at FreshfieldsBruckhausDeringer. They advised Deutsche Bahn on the sale of Brenntag in 2003, BC Partners on the acquisition of Brenntag in 2006, and the IPO in 2010.
14. Fidler had been Executive Vice President of Brenntag North America since 1998.
15. Steve Holland replaced Daniel Pithois, former Head of Brenntag Europe, who left Brenntag by mutual consent in 2007.
16. Zuschke was a Managing Partner at BC Partners. He was part of the deal team that evaluated Brenntag in 2003, led the team that conducted the transaction in 2006, and was a member of the supervisory board of Brenntag since 2006.
17. Müller was Head of Investor Relations at Brenntag. He joined Brenntag in 2003 to head the treasury and control department.
18. Frohn was a Managing Director at Morgan Stanley. The investment bank advised BC Partners on the acquisition of Brenntag in 2006.
19. Bain Capital was established in 1984. Headquartered in Boston, Bain Capital began making investments in Europe in 1989. At the time of the secondary buyout, its latest global (European) private equity funds were raised in 2006 (2004) with committed capital of €8.0 billion (€1.0 billion). BC Partners' eighth fund was raised in 2005 with committed capital of €5.9 billion and closed its ninth fund with capital of €6.5 billion in February 2012. Both firms were among the top 50 global private equity firms according to PEI (2007), PEI 50's ranking.
20. These growth rates are based on reported figures. If we take into account the full year impact of acquisitions, EBITDA growth is c. 18 per cent in the primary buyout, and c. 13 per cent in the secondary buyout.

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