

Rheingauer Monographien

Dirk Schiereck / Christof Sigl-Grüb / Christian Voigt (Editors)

The German Brewing Industry



Rheingauer Monographien

The German Brewing Industry

Dirk Schiereck / Christof Sigl-Grüb / Christian Voigt (Editors)

A collaborative publication from





The German Library – CIP-Affiliation

The German Library lists this publication in the German national bibliography; detailed bibliographic data is available

on the Internet at http://dnb.ddb.de.

© SMG[™] Publishing AG, 2006

CH-9000 St. Gallen, Teufener Strasse 25

Tel.: +41 (0)71 226 10 60, Fax: +41 (0)71 226 10 69

homepage: www.smg-ag.com, e-mail: contact@smg-ag.com

All rights reserved.

This publication as a whole and its constituent parts are protected by copyright laws. Any copying, reproduction or use without written permission from the publisher violates copyright laws and is liable to prosecution. This particularly applies to copying, translating or microfilming as well as storing and processing the contents in electronic systems.





Preface

Although scientific research on mergers and acquisitions is exuberant, comparably little can be found on M&A activities focusing on specific industries. This book is one of the few M&A books concentrating on one single industry and its special regularities, value drivers and merger motives. But this is only one of the reasons for presenting this collection of articles. This book is first and foremost a documentation of a project course that brought together research and teaching more closely. It gives graduate students at the European Business School the opportunity to gain insights and practical experience in scientific research.

The book is a compilation of articles which emerged from the 'Project Course M&A – the German Brewing Industry' in the summer term 2005, a course offered to 8th semester students at the European Business School. The design of this project course has a special character. Departing from a single industry, students are asked to filter and elaborate on relevant aspects of finance related to M&A activities in this industry. In the course of their examinations they do not only have to bring their results in paper form but also present it and discuss it with their fellows as well.

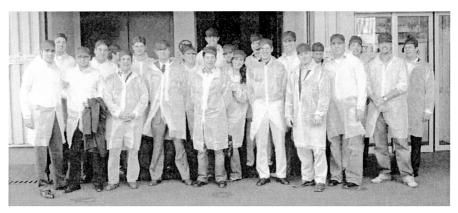
The industry which was chosen for the 2005 course is the German brewing industry. The reasons why its respective companies are appreciative study objects are manifold:

- Over the last decade, quite a big number of take-overs have changed this
 industry irreversibly. Big international players emerged from this consolidation process. The number of deals is exuberant.
- Still, the branch as a whole is in a deep flux. Decreasing sales volumes
 and revenues and changing markets demand a high degree of flexibility
 and efficiency from producers, providing the ground for further activities
 in the field of M&A.

- Particularly the German brewing industry is still quite fragmented with a great number of historically grown companies with a strong regional focus.
- With respect to newly opening Eastern markets, Germany plays an important role as a basis from which Eastern markets are entered due to its geographical location.
- The large number of exchange listed firms provide a stable basis for drawing empirical inferences.

Due to the underlying concept, the articles in this book cover a wide range of M&A-related topics. Starting with descriptive issues of brewing companies and deals, continuing with an empirical evaluation of trading and transaction valuation of aquirers and targets, going further to the issue of constructing industry indices and finally widening the focus to Central and Eastern European beer markets, this book provides insights into an industry which can hardly be found in one single source and in this compactness. On top, insights on depicted transactions are provided in the form of case studies.

Oestrich-Winkel, December 2005 Dirk Schiereck Christof Sigl-Grüb Christian Voigt



The participants of the 'Project Course M&A – The German Brewing Industry' visiting the Radeberger brewing plant in Frankfurt.

Overview of Content

Pr	efac	ce	I
A		se Study: The Acquisition of Holsten Brauerei AG by	1
_			
В	Me	&A-Activities in the German Brewing Industry	
	I	Descriptive Statistics – Merger Waves and Multiples	
	II	Trading Multiples in the German Brewing Industry	
	III	Transaction Multiple Valuation in the German Brewing Industry	77
C	Ca	se Study: The Acquisition of Würzburger Hofbräu AG by	
	Ku	ılmbacher Brauerei AG	103
D	Sh	ort and Long Term Performance of M&A Activities in the	
D		rman Brewing Industry	128
	I	M&A Announcement Effects on Bidders in the German Brewing	
		Industry	129
	II	M&A Announcement Effects on Targets in the German Brewing	
		Industry	159
	III	Long-Term Performance in the German Brewing Industry - Acquirer	
		versus Non-Acquirer	187
E	Ca	se Study: The Acquisition of Brau und Brunnen by RB	
		auholding	221
F	Th	e German Brewing Industry in an International	
		mparison	246
	I	Index for listed Breweries in Germany	
	II	Developing a European Brewing Industry Index	
	III	Performance Index UK versus Germany	
	IV	•	•
			305

Table of Content

	Case Study: The Acquisition of Holsten Brauerei AG by	
C	Carlsberg A/S	1
b_{\cdot}	y Jochen Gast and Christian Johansson	
1	Introduction	1
2	The Main Characters	1
	2.1 Facts and Figures	1
	2.2 Holsten – Background and History	2
	2.3 Carlsberg – Background and Growth Strategy	5
3	The Take-Over of Holsten	6
	3.1 Reasons for the Take-Over of Holsten	6
	3.2 The New Brand Structure	8
	3.3 The Transaction	10
	3.3.1 Course of Events	10
	3.3.2 Financial Terms	10
	3.4 Risks of the Acquisition	12
	3.5 Reactions to the Announcement of the Acquisition	13
	3.5.1 Analysts' Opinions	13
	3.5.2 Market Reaction	14
4	Ex-Post Analysis	15
5	Conclusion	16
A	Appendix	18
R	References	23
N	A&A-Activities in the German Brewing Industry	26
	Descriptive Statistics – Merger Waves and Multiples	27
b _.	y Mirko Jablonsky and Patrick Zenz-Spitzweg	
1		
	1.1. Objective of the Study	27

		1.2. Course of Analysis	28
	2.	Theoretical Background	28
		2.1. Basic Considerations Regarding the German Beer Market	28
		2.2. The Concept of Multiple Valuation	31
	3.	Merger Statistics	33
		3.1. M&A Activity in the German Brewing Market	33
		3.2. Selected Transactions in the German Market	35
		3.3. German vs. International Transactions	38
	4.	Conclusion and Future Outlook	41
	Аp	pendix	43
	Re	ferences	49
II		ading Multiples in the German Brewing Industry	51
	by.	Diana Diekmann and Heiko Weber	
	1	Introduction	51
		1.1 Objective of the Study	51
		1.2 Course of Analysis	52
	2	Conceptual Foundation of Valuation Methodologies	53
		2.1 Definition of Trading Multiples	53
		2.2 Equity Multiples	55
		2.2.1 Cash Flow Multiple	55
		2.2.2 Price/Earnings Ratio	56
		2.3 Enterprise Multiples	56
		2.3.1 Sales Multiple	56
		2.3.2 EBIT Multiple	57
		2.3.3 EBITDA Multiple	58
	3	Analysis of Trading Multiples in the Brewing Industry	
		3.1 Description of the Data Sample and Multiple Calculation	
		3.2 Calculation and Analysis of Trading Multiples	
		3.2.1 Equity Multiples	
		3.2.1.1 Cash Flow Multiple	
		3.2.1.2 Price/Earnings Ratio	
		3.2.2 Enterprise Multiples	64

		3.2.2.1 Sales Multiple	64
		3.2.2.2 EBIT Multiple	65
		3.2.2.3 EBITDA Multiple	66
	4	Conclusion and Final Remarks	67
	Αp	pendix	70
	Re	ferences	76
III		ansaction Multiple Valuation in the German Brewing Industry	77
	by	Sarah Ali Khalil Ibrahim and Katharina von Bassewitz	
	1	Introduction	77
		1.1 Objective of the Study	77
		1.2 Course of Analysis	78
	2	Multiple Valuation Foundation	79
		2.1 Conceptual Basics of Multiple Valuation	79
		2.2 Overview of the Most Commonly Applied Multiples	82
		2.2.1 Sales Multiples	83
		2.2.2 EBIT Multiple	83
		2.2.3 EBITDA Multiple	84
		2.3 Drivers of Variation in Multiples	85
	3	Analysis of Transaction Multiples in the German Brewing Industry	86
		3.1 Description of the Data Set	86
		3.2 Initial Evaluation of the Assessed Transaction Multiples	87
		3.2.1 Description of Sales Multiple Levels	87
		3.2.2 Description of EBIT Multiple Levels	
		3.2.3 Description of EBITDA Multiple Levels	
		3.3 Evaluation of Multiple Levels with Value Drivers	
		3.3.1 Growth	
		3.3.2 Profitability	
		3.3.3 Size	
		3.3.4 Intensity of Investments	
		3.3.5 Transaction Advisor	
		3.3.6 Premium	
	4	Concluding Remarks and Outlook	94

	Аp	pendix	96
	Re	ferences	102
C	Ca	se Study: The Acquisition of Würzburger Hofbräu A	AG by
		ılmbacher Brauerei AG	•
		Sebastian Schels and Tim Knipps	
	1	Introduction	103
	2	The Acquirer: Kulmbacher Brauerei AG	
		2.1 Company Background	
		2.2 Product Portfolio	
		2.3 Corporate Strategy	105
		2.4 Shareholder and Holding Structure	
		2.5 Financial Data	
	3	The Target: Würzburger Hofbräu AG	108
		3.1 Company Background	108
		3.2 Product Portfolio	108
		3.3 Corporate Strategy	109
		3.4 Shareholder and Holding Structure	109
		3.5 Financial Data	110
	4	Strategic Rationale	112
		4.1 Würzburger Hofbräu Under External Pressure	112
		4.2 Kulmbacher Brauerei AG's Strategic Decision	113
		4.3 Shareholders' Interests	115
	5	The M&A Deal	116
		5.1 The Transaction	116
		5.2 Capital Market Reaction	119
	6	Financial Rationale	120
		6.1 Valuation of the Target	120
		6.2 Analysis of Comparable Transactions	121
	7	Conclusion	122
	Re	ferences	124

D		ort and Long Term Performance of M&A Activities in erman Brewing Industry	
		,	
I		&A Announcement Effects on Bidders in the German Brew	_
		dustrydustry	129
	by	Florian Geiger and Tobias Roediger	
	1	Introduction	129
		1.1 Objective of the Study	129
		1.2 Course of Analysis	130
	2	Review of Literature	131
	3	Empirical Analysis	132
		3.1 Derivation of Hypotheses	132
		3.2 Event Study Approach	135
		3.2.1 Methodology	135
		3.2.2 Tests for Statistical Significance	138
		3.3 Data Selection	138
		3.3.1 Data Base Selection Criteria	138
		3.3.2 Characteristics of the Data Sample	139
		3.4 Discussion of Results	140
		3.4.1 Cumulative Average Abnormal Returns	140
		3.4.2 Comparison of Subsamples	142
		3.4.3 Multivariate Regression	144
		3.5 Implications	146
	4	Summary and Conclusion	147
	Ap	ppendix	149
	Re	ferences	153
II	M	&A Announcement Effects on Targets in the German Brew	ing
	In	dustry	159
by	Jör	g Gerbig and Felix Zawadzky	159
	1	Introduction	
		1.1 Objective of the Study	159
		1.2 Course of Analysis	160

	2	Review of Literature	100
	3	Introduction of Hypothesis	163
	4	Sample	165
		4.1 Data Collection and Data Revision	165
		4.2 Descriptive Statistics	166
	5	Methodology	168
		5.1 Determination of Event Windows	168
		5.2 Examination and Aggregation of Abnormal Returns	168
		5.3 Examination of Statistical Significance	170
		5.4 Analysis of Influencing Factors	171
	6	Results	172
		6.1 Share Price Reactions	172
		6.2 Influencing Factors on Share Price Reactions	174
	7	Conclusion	176
	App	pendix	178
	0	D of our or or	101
	8	References	181
ш	Lor	ng-Term Performance in the German Brewing Industry - quirer versus Non-Acquirer	
	Lor	ng-Term Performance in the German Brewing Industry -	187
	Lor	ng-Term Performance in the German Brewing Industry - quirer versus Non-Acquirer	187
	Lor Acc	ng-Term Performance in the German Brewing Industry - quirer versus Non-Acquirer Anderson and Jörg Homann	187187
	Lor Acc	ng-Term Performance in the German Brewing Industry - quirer versus Non-Acquirer Anderson and Jörg Homann Introduction	187187187187
	Lor Acc	ng-Term Performance in the German Brewing Industry - quirer versus Non-Acquirer Anderson and Jörg Homann Introduction	187187187187188
	Lor Acc Jens	Anderson and Jörg Homann Introduction 1.1 Objective of the Study 1.2 Course of Analysis	187187187187188
	Lor Acc Jens	Anderson and Jörg Homann	187187187188188
	Lor Acc Jens	Anderson and Jörg Homann	187187187188188188192
	Lor Acco Jens 1	Anderson and Jörg Homann	187187187188188188192
	Lor Acc	Anderson and Jörg Homann Introduction 1.1 Objective of the Study 1.2 Course of Analysis Review of Literature and Formulation of Hypotheses 2.1 Review of Literature 2.2 Formulation of Hypotheses Sample and Data Description	187187187188188188192192
	Lor Acc	Anderson and Jörg Homann Introduction 1.1 Objective of the Study 1.2 Course of Analysis Review of Literature and Formulation of Hypotheses 2.1 Review of Literature 2.2 Formulation of Hypotheses Sample and Data Description Methodology	187187187188188192192194
	Lor Acc	Anderson and Jörg Homann Introduction 1.1 Objective of the Study 1.2 Course of Analysis Review of Literature and Formulation of Hypotheses 2.1 Review of Literature 2.2 Formulation of Hypotheses Sample and Data Description Methodology 4.1 Long-term Performance Study Methods	187187187188188188192194194199
	Lor Acc	Anderson and Jörg Homann Introduction 1.1 Objective of the Study 1.2 Course of Analysis Review of Literature and Formulation of Hypotheses 2.1 Review of Literature 2.2 Formulation of Hypotheses Sample and Data Description Methodology 4.1 Long-term Performance Study Methods 4.2 Methodology Selection	187187187188188192194194199

		5.1 Long-term Results	205
		5.2 Short-term Results	206
	6	Summary and Concluding Remarks	209
	Ar	ppendix	211
	_	ferences	
E	Ca	ase Study: The Acquisition of Brau und Brunnen by RB	
	Br	auholding	221
		Claus Naarmann and Dominikus Priller	
	1	Introduction	221
	2	Profiles of the Involved Companies	
		2.1 The Bidder – RB Brauholding (Radeberger)	
		2.2 The Target – Brau und Brunnen AG	
	3	The Transaction	
		3.1 Course of the Transaction	227
		3.2 Transaction Price and Valuation Issues	229
		3.3 Reaction of the Share Price of Brau und Brunnen AG	231
	4	Strategic Rationale behind the Transaction	232
	5	Evaluation of the Transaction	235
	6	Conclusion	238
	Αp	pendix	240
	Re	ferences	242
F	Tł	ne German Brewing Industry in an International	
_		omparison	246
I	In	dex for listed Breweries in Germany	247
•		Ulf Dobberke and Florian Voigt	
	1	Introduction	247
		1.1 Objective of the Study	247
		1.2 Course of Analysis	
	2	Foundations	248
		2.1 Overview of the German Brewing Market	248

		2.2 Index Basics	250
	3	Description of the Data Sample	251
	4	Index Calculation Methodology	252
		4.1 Performance versus Price Index	252
		4.2 Index Formula	253
		4.3 Index Weighting and Free Float	255
		4.4 Correction Factor	256
	5	Performance Analysis	257
		5.1 Holsten as the Key Driver of the BEX	257
		5.2 BEX-Germany versus DAX, MDAX and EuroStoxx	260
	6	Conclusion and Outlook	263
	Аp	pendix	265
	Re	ferences	267
II		veloping a European Brewing Industry Index	269
	1	Introduction	269
		1.1 Objective of the Study	269
		1.2 Course of Analysis	270
	2	Indexation for the European Brewing Industry	270
		2.1 Overview on Index Types	270
		2.2 Reasons for a European Brewery Index	271
		2.3 The European Brewing Industry Index (EuroBEX)	272
	3	Methodology and Sample	273
		3.1 Methodology	273
		3.1.1 Method of Index member selection	273
		3.1.2 Calculation of the EuroBEX	274
		3.1.3 Quarterly Index Adjustment	275
		3.2 Sample	276
	4	Results	278
		4.1 Analysis of the EuroBEX	279
		4.2 Analysis of the BEX in an M&A Context	281
	5	Conclusion	283

	Re	ferences	285
Ш	Per	formance Index UK versus Germany	287
	by.	Jens Tegelaers	
	1	Introduction	287
	2	General Overview	288
	3	Market Structure	290
		3.1 German Brewers	290
		3.2 UK Brewers	291
	4	Setting up the Index	292
		4.1 Sample	292
		4.2 Index Method	293
		4.3 Examination Period and Data	294
		4.4 Weightening and Capping	294
	5	Results and Observations	
		5.1 Currency Adjustment	296
		5.2 Risk and Return	297
		5.3 Problems and Constraints	299
		5.4 Additional Remarks	300
	6	Conclusion	301
	Ref	Ferences	303
IV	A (Consolidated View on Central and Eastern European Beer	
	Ma	rkets Including Russia and China	305
	by .	Philip Janßen and Carsten Düber	
	1	Introduction	305
		1.1 Objective of the Study	305
		1.2 Course of Analysis	306
	2	Comparative Analysis of Global Beer Markets	307
		2.1 Mature Versus Emerging Markets	307
		2.2 Macroeconomic Analysis	308
		2.2.1 Drivers of Growth	308
		2.2.2 Focal Point Emerging Markets	300

	2.3 Microeconomic Analysis	310
3	Consolidation in the Global Beer Market	312
	3.1 Long-Term Benefits for the Buyers	312
	3.2 Contemporary Development	313
	3.3 Long-Term Benefits for the Sellers	314
4	Market Environment and Related Strategies	315
	4.1 Consumption Trends	315
	4.2 Analysis of Beer Prices	316
	4.3 Market Life Cycles	318
	4.4 Developments in Eastern Europe Including Russia and China	320
	4.5 Main Brewers	322
	4.6 Strategic Considerations	323
	4.6.1 Plausible Alternatives	323
	4.6.2 The Influence of Scale and Market Fragmentation	323
	4.6.3 Choices Depending on Market Maturity	324
5	Portraying Outperformers	325
	5.1 Ukraine	325
	5.2 Russia	328
	5.3 The People's Republic of China	331
6	Conclusion	335
Ap	pendix	337
Re	ferences	351

A Case Study: The Acquisition of Holsten Brauerei AG by Carlsberg A/S

by Jochen Gast and Christian Johansson

1 Introduction

In recent years, the German brewing industry has seen tremendous changes. Big international brewery groups have discovered their interest in the German market, which is, even though shrinking, the third largest beer market in the world. To enter this heavily fragmented and regionalized market, foreign corporations have launched a series of acquisitions racing for the best pieces of the German beercake. One of the most spectacular take-overs of the recent past was the acquisition of Holsten, the second biggest German brewery group, by Carlsberg, the Danish beer-multi in January 2004. In the following, after having introduced both main actors, we will explain the details of this deal and the strategic rational behind it as well as the risks inherent in the deal. We will furthermore describe the market's reaction to the take-over and, as far as it is already recognizable, evaluate the acquisition's success.

2 The Main Characters

2.1 Facts and Figures

The Carlsberg brewery was founded in 1847 near Copenhagen, Denmark. Since then it has become the fifth biggest brewery group in the world producing in 40 countries and selling beer for more than € 4.5b in 140 countries each year. In addition to beer, the 31.375 Carlsberg employees produce and sell sodas and water, which together sum up to about one fifth of Carlsberg's production volume. Natu-

rally, Carlsberg's core market can be found in Northern Europe, but the group is also active throughout all of Western and Eastern Europe as well as in Asia.¹

Holsten, on the other side, sells more than 80% of its output within Germany, especially in the northern and eastern federal states. It was founded in 1879 in Altona near Hamburg and, just like Carlsberg, produces and sells beer, soft drinks and water. Before the take-over, the Holsten AG was Germany's second biggest brewery group. Nevertheless, it then only employed 2.840 people and had less than one fifth of Carlsberg's market capitalisation. Therefore, we can state that in this case presented, Carlsberg, a big multinational corporation, acquired the much smaller national player Holsten.²

Chart 1: Comparison of Carlsberg and Holsten (figures as of end 2003)

	Carlsberg	Holsten
Turno∨er (in mio. EUR)	4.657	752
Sales – Beer (in mio. hl)	81,4	9,1
Sales – Soft Drinks (in mio. hl)	21,2	3,8
Earnings (in mio. EUR)	203	6,7
Market Capitalization (in mio. EUR)	2.112	367
Employees	31.375	2.840

Source: Own depiction based on Carlsberg (2005), p. 4; Holsten (2004), p. 1, 3.

2.2 Holsten – Background and History

The year 2003 did not start well for Holsten. The new German regulation about can deposits, which became active on January 1st, nearly wiped out the can market segment completely, an area that used to be a traditional strength of the Holsten group.³ Because management had missed to prepare properly for this important shift in market conditions, Holsten lost about 8.5% of its revenues within the first

¹ Cf. Carlsberg (2005a), p. 1.

² Cf. Holsten (2005b).

³ Cf. CSFB Research (2003), p. 11f.

half of 2003. A new strategy that would allow regaining the lost market share quickly was not in sight.⁴

In this situation, Christian Eisenbeiss, so far the owner of a 34% stake in Holsten and chairman of the supervisory board acquired a 14.37 % package from Commerzbank, which gave him control over 49.37% of Holsten's shares. Rumors hold that the intention behind this deal was to gain a majority position in Holsten, which now could more easily be sold to strategic investors with an interest in acquiring the German brewery. Even though Eisenbeiss made publicly clear that he was not interested in selling Holsten, speculations thrived leading to a rise in share prices from ϵ 20 in February to around ϵ 35 in June (see Chart 2).

On July 17th Eisenbeiss finally announced that he planned to sell his 49,37% stake. Holsten's management immediately started to search for a strategic investor that would take the majority position in the brewery group. During the following months, several big multinational breweries were discussed as potential buyers, which made the share price rise to around € 50 each.⁶

In September, the full extent of the decline in sales caused by the can deposit problem became public, and still no workable growth strategy seemed to be in place. So far, no strategic investor could be found and because of the newly published bad figures a successful search seemed more and more unrealistic. Share prices started to fall again and finally, on December 10th, Holsten's management announced the end of the search for an investor, thereby causing stock prices to fall below & 25.7

Only 40 days later, on January 20th 2004, Carlsberg suddenly announced that it would buy 51% of Holsten's shares including the 49,37% of C. Eisenbeiss. Furthermore, Carlsberg offered the remaining shareholders to buy their stocks for

⁴ Cf. Holsten (2003), S. 2.

⁵ Cf. Hönighaus (2003).

⁶ Cf. Fischer (2003).

⁷ Cf. Rössig (2003).