PRIVATE EQUITY INVESTMENTS IN THE BANKING INDUSTRY – THE CASE OF LONE STAR AND KOREA EXCHANGE BANK

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Abstract

This paper examines success factors for the value creation of a private equity fund investing in a bank – based on Lone Star's acquisition of Korea Exchange Bank in 2003. Despite the value destruction mergers and acquisitions in the banking industry have shown, Lone Star turned the bank successfully around. Considering regulatory restrictions and limitations to lever a transaction, the private equity fund also capitalized on the recovery of financial markets after the financial crisis in Asia during the late nineties.

With regard to these circumstances success factors of the performed value creation are evaluated by the case study approach.

Key words: Private Equity, Bank, Acquisition, Value Creation, South Korea.
JEL Classification: G14, G21, G24, G34.

Introduction

Are private equity funds able to create shareholder value in the banking industry? Considering the research on mergers and acquisitions (M&A) with regard to banking and private equity, the field of (financial) industry-specific private equity investments remains largely unexplored. Existing studies about M&A transactions in the banking industry have shown certain value destruction. Negative value impacts for banks as acquirers question the value-creation potential for other investors, in particular private equity funds. Compared to transactions in other industries, the acquisition of a financial institution has certain particularities. Besides regulatory restrictions and limitations to lever a transaction due to capital adequacy, the generation of cost synergies is challenging. In the case of an acquisition of a bank, public opinion plays also a role in the success of the transaction – especially if the bank is listed on a stock exchange. Furthermore, given the narrow investment period of a fund, the financial sponsor will already need to have factored in measures to prepare a successful exit to reach a required internal rate of return. Taking this background into consideration, we analyze the value creation of a financial buyer through the acquisition of a bank. The analysis is performed by the case study approach.

As an immediate reaction to the financial crisis in Asia during the late nineties, which also hit the Republic of Korea (Korea), the Asian country received a support package of USD 57 billion from the International Monetary Fund (IMF) in December 1997. The IMF provided these funds under the condition that structural reforms would have to be initiated in the Korean economy[1]. As a result of the initiated measures banking business in Korea became attractive for national and international players[2]. Besides the geographic distinction of acquiring companies, strategic (e.g., Citigroup and Standard Chartered) and financial players (e.g., Lone Star, Newbridge Capital, and The Carlyle Group) entered the Korean market through the acquisitions of banks to participate in the positive economic developments.

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[1] See Ahn, Choong Yong (2001), p. 1.
[2] "[…] Korea has achieved an annual growth rate of 5.5 per cent during the past five years […]." OECD (2005), p. 11.

Performing one of the largest M&A transactions in the Korean market in the aftermath of the 1997 crisis, Lone Star acquired a majority stake in Korea Exchange Bank (KEB) in 2003. The private equity fund intended to sell its stake in 2006. Due to the ongoing allegations by Korean authorities concerning irregularities and potential fraud in connection with Lone Star's acquisition, the intended sale of Lone Star's KEB stake to Kookmin Bank had been cancelled by the private equity fund. Despite these allegations, the following case study investigates the value creation by Lone Star[1]. Also, key factors for a successful acquisition of a bank by a private equity fund – including turnaround measures – are exemplarily discussed.

Besides the described developments in Korea and the resulting transactions in the financial industry, there are similar transactions (e.g., in Japan and Germany) where financial investors acquired banks, initiated and implemented turnaround measures, or already exited their investment[2].

The rest of the paper is organized as follows. A brief overview of the theoretical background and current research will be presented. Taking the regulatory status of the selected transaction into consideration, banks as investment objects as well as economic and banking developments in Korea will be discussed. Key factors of the transaction and the following turnaround measures will be elaborated upon to provide a basis for the empirical analysis. Therefore, the strategic rationale, the execution of the transaction, and post-acquisition measures will be analyzed. The latter factors and the results of the empirical analysis serve as a foundation for the concluding discussion of key factors for a successful acquisition.

Theoretical Background and Current Research

The private equity market represents a financial source for enterprises. This organized market can be described as follows: "[…] professionally managed equity investments in [registered and] unregistered securities of private and public companies. An equity investment is any form of security that has an equity participation feature. […]"[3]. Within its investments, financial investors focus on the acquisition of majority shareholdings which are in late financing rounds.

The research about private equity has been intensified in the last decade. Studies about tasks, functions, fundraising, organization, value creation, and performance analysis, or publications concerning financing stages and exits with geographical or industry-specific focus have been performed[4]. Also statistics about the private equity investments in the financial industry will be shown separately (e.g., European Venture Capital Association). Besides the performed research and statistics, no further breakdown of sub-industries (such as banking industry) will be provided.

Worldwide, banks are subject to regulatory conditions which refer to the contribution of services as well as to the associated refinancing of their business. Apart from national laws, international

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[1] On November 23, 2006, Lone Star announced the cancellation of the purchase and sales agreement between the private equity fund and Kookmin. Shortly after that announcement, the Korean prosecutors revitalized its claim on December 7, 2006, and prepared a lawsuit against Lone Star. Due to the ongoing allegations, no final judgment can be made at this time. Therefore, the selected procedure will be pursued without consideration of the described allegations. See Irvine, Steven (2006), pp. 1-5, and Lone Star (2006), pp. 3-8.

[2] Examples for transactions in Japan are engagements of Lone Star in Tokyo Star Bank and First Credit Corp., Cerberus's investment in Aozora Bank, and Ripplewood's acquisition of Shinsei Bank. See Securities Data Corporation (SDC) Database, Thomson Financial.

[3] Fenn, George. W./Liang, Nellie/Prowse S. (1995), p. 2. This definition of private equity and the market needs to be extended, due to the fact that the targeted bank was listed at the Korean Stock Exchange.

[4] Considering research with an industry-specific focus, studies explored different industries: high-technology, biotechnology, software, services, telecommunication and networking, medical equipment, and computer hardware. Exemplarily, the following studies can be named; Armstrong et al. (2005) analyze the relationship between "Venture-Backed Private Equity Valuation and Financial Statement" and explore six of the listed industries. Wu (2001) examines a dataset within the high-technology industry between 1986 and 1997, focusing on the "Choice between Public and Private Equity Offerings". Within his study about "The Value Relevance of Financial Statements in Private Equity Markets," Hand (2004) analyzed US biotechnology firms. Loos (2006) analyses the value creation of financial investors through their investments in Europe and the United States based on a dataset of more than 3,000 leveraged buyout transaction from various industries.

sets of rules have been extended in recent years (such as Basel II). For example, the specified 8% minimum capital requirement of Basel II forces banks to determine the amount of regulatory capital for unexpected losses of their uncovered loans in more detail. In addition to the changing regulatory environment, banks face economic concerns and the need for restructuring in light of national or international developments. According to Beitel et al. (2003), technological change, increasing demand of shareholder value by shareholders, currency alignments, as well as globalization and increasing competition can be exemplarily named for these developments.

Following these remarks, it is essential for private equity funds, by investing in banks, that the new regulations will be adopted, that the bank has sufficient regulatory capital, and a loan portfolio with a high portion of a qualitative customer base; there should also be the opportunity to settle the bad loan portfolio.

Post-crisis Economic and Regulatory Developments in Korea's Financial Sector

The Korean government outlined the following strategic cornerstones to implement the requested IMF restructuring of the financial sector[1]: 1) Provision of liquidity support, time-bound deposit guarantees, and intervention in important nonviable institutions to quickly restore the stability of the financial system; 2) Intervention in nonviable institutions, acquisition of non-performing loan portfolios, and usage of government funds for recapitalization as restructuring measures to revitalize the financial system; 3) Adoption of international regulatory and supervisory best practices to strengthen the existing legal framework; 4) Implementation of measures to reduce the dependency of corporate distress and financial institutions exposed to the credits.

In order to build up trust and to ensure the operability of the financial systems, the government guaranteed all deposits of financial institutions until end of 2000 and negotiated prolongations for currency debts with foreign banks. In addition to that, foreign investors were also allowed to own commercial bank shares. To adopt best international regulatory practices, the Korean supervision consolidated the independent authority Financial Supervisory Commission (FSC) and the executive agency Financial Supervisory Service (FSS). Both are responsible for granting and revoking banking licenses and are the regulatory authorities for banking and non-banking financial institutions. Since 1998, foreigners have been able to serve as executives for Korean banks. As an additional measure to strengthen the corporate governance of banks, non-executive committees of outside directors have been introduced in banks. In 2000 the *chaebol*[2] companies faced financial difficulties again. Therefore, the regulatory authorities had to revitalize their restructuring activities[3]. To accelerate changes and economic restructurings, the government asked foreign investors to participate.

Due to Korea's reform efforts – especially in the financial sector where "[…] the restoration of healthy bank balance sheets has strengthened the transmission of monetary easing to the economy"[4] – the positive economic development could already be seen in the following years. At the beginning of 2003, the economic outlook for 2003 and 2004 was positive – projecting an output growth of 5.5 to 6%. In addition to these growth expectations, Korea's Central Bank retained its medium term inflation target of 2.5 to 3.5 %. While inflation was in that expected range in 2002, the policy interest rate could be increased by 0.25% from its record low of 4%. This was the economic environment Lone Star was facing in early 2003 while considering the acquisition of a majority stake in KEB.

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[1] See Chopra Ajai et al. (2001), p. 36, and Dymski, Gary (2004), pp. 17-19.
[2] "A *chaebol* is a Korean conglomerate where various firms are loosely linked through their shareholders. There is generally no holding structure, at least for the group as a whole." Delhaise, Phillipe F. (1998), p. 46.
[3] By the end of 2000, the Korean government had spent approximately USD 106,482.2 million to support the restructuring of the financial sector. See Ahn, Choong Yong (2001), p. 30.
[4] OECD (2003), p. 9.

Selection of the Transaction

The acquisition of 51% of KEB by Lone Star in August 2003 corresponds to a value of USD 1,171.7 million and was one of the largest M&A transactions in the Korean market in the aftermath of the 1997 crisis. The investment in KEB, which had been publicly listed since 1994 and was the fifth largest Korean bank representing 6.1% of Korea's total bank assets, was also the biggest overseas investment in Korea's financial industry. The public listing of KEB enables an analysis based on publicly available data. In addition to the deal size, it is one of the landmark transactions in the private equity industry focusing on the acquisition of banks.

Annual figures from 2003 to 2005 are available for the analysis of balance sheets as well as profit and loss data. Also, the capital market data will be used for the analysis of the value creation.

In accordance with other case studies prepared in the field of banking M&A (e.g., Calomiris and Karceski, 1998), the transaction partners and their motives will be described in an initial step. Following that description, the investigation and turnaround measures will be discussed in detail to serve as a basis for the empirical analysis.

Description of Korea Exchange Bank

The following description of KEB covers the economic base, reorganization plans, and organizational issues as well as an overview about the shareholder structure. With total assets of USD 68,604.2 million by the end of 2002, KEB was the fifth largest Korean nationwide bank. At that time, KEB had a common equity of USD 1,180.0 million and a market capitalization of USD 713.7 million.

The Asian financial crisis in the late nineties also hit the KEB; a number of bankruptcies of corporate clients resulted in an increase of loan loss provision and subsequently to the disposal of non-performing assets. As an immediate action, a corporate restructuring program was initiated and led to a reduction of the workforce and a subsidiary restructuring. The management additionally initiated a "five actions plan"[1] to prepare KEB for the future: 1) To improve the credit process by the adoption of loan screening techniques – and therefore to reduce the bad debt amount – KEB set up an internal "Bad Bank" division; 2) Measures for the enhancement of transparency and responsibility were introduced. Therefore, the bank reorganized its Board of Directors, enabling non-executive directors and working committee members to influence the new corporate governance structure; 3) KEB switched from a function- to a customer-oriented organization through the implementation of a business unit system; 4) The bank set up a new risk management system; 5) The management initiated a project to reorganize the information and technology infrastructure.

From 1998 to 2000, several measures to recapitalize the bank had been implemented. As a foreign bank and strategic investor, Commerzbank AG (Commerzbank) participated in these capital measures. The German bank injected capital USD 290.7 million (in 1998), USD 228.1 million (in 1999), and USD 166.0 million (in 2000) and therefore increased its shareholding to 32.55%. KEB's merger with its subsidiary, Korea International Merchant Bank, in January 1999 led to an increase of KEB's paid in capital of USD 1,280 million. Following the five-step plan initiated in 1998, KEB presented in 2000 an updated turnaround plan to the FSA and received the approval to continue with its business operations independently. Optimizing the capital base, reducing non-performing loans, and raising the profitability were the core elements of the restructuring plan approved by the FSA. By the end of 2002, KEB had the vision to become the "First Choice Bank for Customers, Shareholders, and Employees"[2]. In light of the poor performance in 2002 – net income decreased significantly in 2002 to USD 56.4 million from USD 241.5 million in 2001 – the management focused on the realignment of its business strategies and strengthening internal capabilities of KEB. Therefore, services in retail banking, corporate banking, global banking, foreign ex-

[1] See KEB (1999), pp. 3-5.
[2] KEB (2003), p. 22.

change, trade financing, and risk management, as well as products for its broad national and international private and corporate customer base, emerged from the selected organizational structure. To operate the business, the Executive Committee and its subcommittees led 9 Business Units, 20 Banking Groups, 34 Divisions, and 4 Temporary Divisions (Marketing, Loan, Personnel, Risk Management Steering, and Capital Markets).

On December 31, 2002, KEB's shareholder structure was as follows: Commerzbank (32.55%), Bank of Korea (10.67%), Export-Import Bank of Korea (32.50%), and other shareholders (24.28%). Bank of Korea and Export-Import Bank were government-owned institutions. Commerzbank as well as the Korean government, were dependent on each other. Neither the government nor Commerzbank had a controlling stake that could be divested or alternatively used without the other's permission or future decision support.

Due to the deteriorating capital position of KEB in early 2003 and the unwillingness of KEB's major shareholders to inject additional capital, they endorsed the active search for an external investor.

Description of Lone Star

Until May 2006 Lone Star had invested in almost 50 separate investments in Korea worth USD 5 billion. The private equity fund performed its first engagement in the Asian country in 1998.

Before the acquisition of KEB, Lone Star was an active player in the acquisition of non-performing loan portfolios, real estate investments, and distressed banks (only in Japan) in the Japanese and Korean markets. As a specialized private equity investor with entrepreneurial focus that invests in distressed real estate, distressed debt, distressed companies and distressed banks, Lone Star acquired bad debt portfolios and real estate in Korea (e.g., a loan portfolio of KEB Credit Services Co. Ltd. [KEBCS] after an extensive due diligence).

Besides, Korea Lone Star is mainly active in the United States, Canada, Japan and Germany. Until the end of 2005, Lone Star had raised USD 13.25 billion for its six funds since its founding and realized annual returns between 9 and 28% for its first five funds[1].

Strategic Rationale and Description for the Transaction

As briefly described above, KEB was facing financial challenges in 2003 and the majority of existing shareholders were not willing to invest additional money. At that time Lone Star had analyzed KEB and its subsidiaries for months; it was their intention to turn the bank around, increase organizational efficiency, and pursue the best available exit option following the economic recovery of the bank and the Korean economy. In addition to financial engineering measures were opportunities to increase the efficiency of the existing and invested capital. The governance structure in terms of the board and the shareholding structure, also provided potential for further optimization.

"Lone Star was the only realistic potential buyer at that time willing to provide the necessary capital injection of about USD 750 million."[2] On August 27, 2003, Lone Star Fund (LSF) IV signed a Memorandum of Understanding with KEB regarding a Share Subscription Agreement to acquire 51%; a new issue of shares served as a capital injection to recapitalize KEB. Also, as part of the transaction, Commerzbank and Export-Import Bank of Korea sold shares to Lone Star. The right for Lone Star to acquire further shares from the two major shareholders until October 31, 2006, was granted by a call option[3]. The Korean regulatory authorities approved the transaction as of September 2003, but it was requested by the FSC and the FSS to pre-notify the regulatory authori-

[1] See Effinger, Anthony/Yu, Hui-yong (2005), pp. 40-42.
[2] Appendix B of Lone Star (2006).
[3] On June 2, 2006 Lone Star Fund exercised its option to raise its interest to 64.63% from 50.53%. See SDC Database, Thomson Financial.

ties in advance of the execution of the options[1]. Additional key terms of the acquisition were the agreement of a lock-up period for two years after closing, no put back-option of non-performing loans, as well as the right for Lone Star to nominate seven of the ten members of the Board of Directors.

After the execution of the transaction, the shareholder structure was as follows: LSF-KEB Holdings (51.00%), Commerzbank (14.75%), Bank of Korea (14.00%), Export-Import Bank of Korea (6.18%), and other shareholders (14.07%). Due to the financial situation of KEB, Lone Star could not expect any dividend payments at short notice, but had to focus on the immediate implementation of turnaround measures.

Post-acquisition Measures

Management and Corporate Governance

After the acquisition by Lone Star, a new management team, including a new Board of Directors, was implemented within KEB. This team was experienced and operations-focused while defining a core-competency-focused strategy.

Immediately after its implementation, the management team initiated corporate restructuring measures. Within a month after the closing (October 30, 2003) of the Lone Star's KEB acquisition, the Board of Directors had decided to merge KEB with its subsidiary KEBCS. The latter offered a wide range of credit card services. KEBCS was established by a spin-off. KEB's credit card operation was separated in 1988. The encountered growth path after the public offering in 2001 slowed down sharply in 2002 and early 2003. A shortfall of receivables and sales growth, in combination with credit losses and high delinquency ratios, forced the management to initiate turnaround measures for KEB's subsidiary[2]. The merger of KEBCS and KEB became effective on February 28, 2004, and diluted Lone Star's shareholding to 50.53%. Besides the reduction of complexity and alignment of the governance structure, reduced funding costs – through an improved rating for KEBCS – could be exemplarily named as reasons behind the merger. By taking full control, additionally, the credit card exposure could be stabilized and controlled. The corporate restructuring of KEB also took place in Europe and the United States.

Strategic and Operational Developments

The new management team adopted immediately global management standards and a new management philosophy to enhance the competitiveness of KEB. Changing the organizational structure as of December 2002, KEB reshuffled its organizational frontline structure in profit centers to the divisions Global Corporate Banking, Retail Banking, and Credit Card. In line with this reshaping was the strategic focus on small and medium enterprises, wealthy clients, as well as customers with deposit accounts and no KEB credit cards in its Credit Card Division. To support these divisions, three operational business groups were set up in May 2004 as cost centers: Credit Management-, Service Delivery-, and Information Technology Group. Since then, Risk-, Financial-, Human Resources Management, and Corporate Communications serve as support functions for the banking business divisions and operational groups. In addition, a new structure performance measurement system was introduced.

In order to reduce bad assets, KEB improved its loan quality through credit control processes and improved the customer classification in the Global Corporate Bank division by industry type. In early 2004, KEB initiated measures to improve the cost efficiency. The organizational restructuring of the headquarters was completed in June 2004. Caused by the peaked Information Technology (IT) depreciation charges in 2003, a focus within the initial restructuring phase was on IT spending. Also at that time, a staff realignment and branch remodeling program had been started. In contrast to the stated initiatives, short-term effects could not be expected on the profit-and-loss

[1] See FSS (2003), p. 4, and KEB (2006), p. 97.
[2] See KEB (2006), p. 144, and KEBCS (2003), pp. 26-41.

account. In opposition to that, a focus on trading and settlement operations, as well as reengineering banking operations and a reallocation of staff, led to early positive results.

Based on this initial success in the first full accounting year of Lone Star's ownership, the management focus for 2005 was as follows[1]: 1) Build marketing excellence for targeted customer segments by trade-oriented corporate banking, affluent retail banking, and focus on fixed income and international settlement as well as credit card business; 2) Enhancement of KEB image; 3) Refinement of credit reviews and deal-structuring capabilities; 4) Maximization of capital efficiency and building up of the capital base; 5) Continuous focus on process and cost efficiency (by being not the biggest but the best by implementing smarter, faster, and more efficient procedures); 6) Expansion on global standard Human Resource improvement systems.

Balance Sheet Restructuring and Recapitalization

Due to dependencies on the Korean *chaebol* and the economic turmoil as a result of the Asian crisis in the late nineties, KEB faced a large amount of corporate bad debt on its balance sheet. After the initial recovery of the corporate sector starting in 2002, the private household sector lacked liquidity and, therefore, the bad debts in this sector increased as well[2]. Already initiated measures had been further enforced after Lone Star's engagement. The continuation of prudent credit management (e.g., Hynix Semiconductor Inc.) and the sale of non-performing loan-portfolios as well as new loans led to the lowest amount of loan loss reserves since the end of the Asian crisis.

By the end of 2003, KEB had also restructured its debt by swapping the maturity from short-term to long-term, taking advantage of the low interest level in Korea at that time. Lone Star's capital injection of approximately USD 900 million covered the losses in 2003 and increased shareholders' equity. The completion of the merger with KEBCS caused an increase "in debentures amounting to" USD 1,932.1 million "converted from the merger"[3]. Also, USD 784.4 million of the bank's capital was used to complete the merger. The measures to restructure the balance sheet revoked an improved Bank for International Settlement (BIS) capital adequacy ratio (BIS Ratio). The highest net income in KEB's history of USD 2,056.4 million was the primarily driver for the improvement of the BIS ratio by the end of 2005 and also represented the best performance of a nationwide bank in Korea (13.68%).

The rating agencies – Moody's Investor Service (Moody's), Standard and Poors (S&P), and Fitch Ratings (Fitch) – acknowledged the refinancing efforts by KEB and lifted their ratings in 2005/2006 (Moody's: Baa2/P-2; S&P: BBB/A-2; Fitch: BBB+/F2).

Through the execution of the described measures, KEB became a profitable bank. In order to examine the impact of Lone Star on the shareholder value creation, share-price developments, its balance sheet figures, as well as a comparison with its competitors, an empirical analysis will be performed.

Empirical Analysis

Description of the Research Method and Definitions

Initially, the short-term and long-term value creation will be analyzed in an event study. Within the following benchmark analysis, it will also be explored if KEB shows a higher value creation than other banks. Also, as part of the empirical analysis the long-term performance of fundamental data will be analyzed.

Following the definition of the event, the event window will be defined. The temporal deferment is necessary, in order to determine the expected net yield for an estimation period and for the event window, which includes periods before and after the event.

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[1] KEB (2005), p. 29.
[2] See Dymski, Gary (2004), p. 19.
[3] KEB (2005a), p. 34.

August 27, 2003, is defined as event day ($t = 0$). Based on t the event window will be expanded to 40 trading days before and 40 trading days after the event day ($T = [-40,+40]$, while $t \varepsilon T$). Through the selection of the trading days before and after t, alternative events distorting the results should be avoided. A further detailed view takes place via the analysis of intervals within the originally selected window from T.

To analyze the impact of the announcement that Lone Star acquires a KEB stake, daily stock returns are used (Total Return Index – TRI). Within these returns, dividend payments are considered. They are also adjusted by corporate actions.

Market-adjusted models assume a linear relationship between the return of any security and the return of the market portfolio. As this is a commonly used model, the following formula will be used to calculate the expected return on security i in period t (R_{it}^*)[1].

$$R_{it}^* = \alpha_i + \beta_i R_{mt} + \varepsilon_{it} \quad (1)$$

Thereby, α_i and β_i are estimated over the defined estimation period by an ordinary least squares (OLS) regression of the respective stock versus the national banking index in Korea (R_m). The underlying assumption for the calculation of formula (1) is a linear relationship between the return of security i and the overall market R_m. Based on the expected return (R_{it}^*) and the return on security i in period t (R_{it}), the abnormal return (AR_{it}) is calculated as the difference between R_{it} and R_{it}^* and therefore the value creation. The calculated daily abnormal returns will be summarized to quote the cumulated return for the respective intervals.

Short-term Analysis

In the following short-term analysis, the described methodology is applied on the defined event day. Table 1 provides an overview of the abnormal returns within the event window for KEB and its national competitors Kookmin Bank and Shinhan Financial Group.

Table 1

Short-term abnormal returns of Korean banks

Intervals	Abnormal return in %			Intervals	Abnormal return in %		
	Korea Exchange Bank	Kookmin Bank	Shinhan Financial Group		Korea Exchange Bank	Kookmin Bank	Shinhan Financial Group
[-40;0]	2.33	-4.28	7.23	[-40;+40]	13.00	-9.46	11.99
[-35;0]	4.45	-5.44	6.65	[-35;+35]	17.68	-10.16	7.11
[-30;0]	10.83	-6.24	-0.28	[-30;+30]	23.62	-9.85	5.45
[-25;0]	11.53	-5.68	-1.86	[-25;+25]	16.67	-7.58	5.53
[-20;0]	9.71	-6.37	-5.54	[-20;+20]	28.99	-9.72	2.16
[-15;0]	10.97	-4.63	-4.24	[-15;+15]	15.42	-5.42	5.49
[-10;0]	10.19	-2.45	-7.92	[-10;+10]	24.42	-3.94	2.16
[-5;0]	13.31	-1.73	-7.28	[-5;+5]	23.27	-0.44	-6.78
[-2;0]	-1.66	-1.67	-3.00	[-2;+2]	14.31	-2.78	-3.64
[-1;0]	1.68	-1.86	-1.62	[-1;+1]	15.36	-3.93	-2.55
[0]	3.63	-1.17	-0.56				

On the event day, KEB's stock price increased by more than 3.6%. Also, in all other intervals within the event window – except for two – KEB had the highest value creation. This result corre-

[1] Peterson, P. (1989), pp. 39-55.

sponds with M&A banking research, where a positive value impact on the acquisition target can be recognized. In addition, the impact of Lone Star as an experienced investor with financial strength also had a positive impact on the value creation. Due to KEB's described situation, its value creation could be interpreted as a reaction to Lone Star's investment and the expectation of a successful turnaround.

Even though a positive impact of Lone Star's engagement can be seen, the presented analysis provides only a short-term view, and the long-term value creation needs to be analyzed.

Long-term Analysis of Capital Market and Fundamental Data

The long-term value creation of KEB's share-price development is analyzed on daily stock returns in accordance with the short-term analysis. In addition to the presented procedure, extensions to consider the extended time period had to be made: 1) Extension of the time frame to 39 months in advance and 36 months after the months of the announcement of Lone Star's KEB acquisition; 2) Setup of a benchmark portfolio. Based on these extensions, the long-term abnormal returns are calculated. Thereby value creation in the subsequent three years of t is calculated in the intervals ([0-12 months], [0-24 months], [0-36 months]). For the abnormal returns, which are also the difference between daily and expected returns, α_i and β_i were determined by an OLS regression. For this regression 36 months, starting three months preceding August 2003, serve as an estimation period. With these results, the expected return is calculated.

Cumulated daily abnormal returns are presented in Table 2. It is recognizable that KEB outperformed its local competitors within the first 36 months after the transaction.

Table 2

Long-term abnormal returns of Korean banks

	Abnormal return in %		
Intervals	Korea Exchange Bank	Kookmin Bank	Shinhan Financial Group
[0-12 months]	34.82	-45.97	8.85
[0-24 months]	51.00	-74.11	9.60
[0-36 months]	23.71	-97.54	-2.58

Despite KEB's success, the presented long-term event study approach does not cover all particularities. Exemplarily deviations in the calculation of long-term abnormal return can be stated. Therefore, the benchmark approach is used to apply an acknowledged research approach.

Out of Thomson Financials Datastream Banking Index Asia, five benchmark companies were selected by comparables (market capitalization as measurement for the size and the expected return; market-to-book ratio to evaluate the return by calculating the market value in relation to the book-value as measurement for the expected growth). Adopting these criteria, Towa Bank, Fukui Bank, Awa Bank, Metropolitan Bank and Trust Company, and RHB Capital were selected. Due date for the selection criteria was the last year-end balance sheet date (December 31, 2002) before Lone Star's acquisition.

The return for KEB and the five selected banks was calculated for the same intervals like in the long-term event study. By subtraction of the respective average of the five banks from KEB's performance, the abnormal return of KEB is determined. The results are presented in Table 3.

Table 3

Long-term abnormal return calculated with benchmark approach

Intervals	Return Korea Exchange Bank in %	Average benchmark in %	Abnormal return Korea Exchange Bank in %
[0-12 months]	26.40	-7.06	33.47
[0-24 months]	103.18	4.57	98.61
[0-36 months]	118.16	14.03	104.13

In all three intervals KEB outperformed the average benchmark in the respective periods. Due to the adjustments of the cons of the previously discussed approaches, as well as the clear results of the value creation initiated by Lone Star in KEB, the latter approach can be qualified as the best in the context of this paper. To also evaluate the described qualitative measures and the calculated value creation based on share-price developments, the fundamental data is analyzed.

Since Lone Star's engagement, the implementation of financial and operating measures can be acknowledged. Considering an increase of total assets in 2005 after its initial "balance sheet shake-up" with significant reserves for loan losses in 2003 and a decline in 2004, the net loans grew slightly in 2005; in comparison with the increase of net-loans in the years before Lone Star's engagement, this considerable generation of new credit business can be accounted to the new credit and risk processes. KEB's balance sheet restructuring as well as an optimized "interest management" caused an increased net interest margin. As one important driver for KEB's performance improvement, the interest income also increased the retained earnings. This can be acknowledged in Tables 4 and 5.

Table 4

Reserves for loan losses and net interest margin of Korean banks

	Reserves for loan losses as % of Total loans				Net interest margin in %			
Banks	2002	2003	2004	2005	2002	2003	2004	2005
Korea Exchange Bank	2.56	5.18	2.00	1.38	2.19	2.76	2.70	3.41
Kookmin Bank	2.39	2.66	2.25	1.78	3.73	3.89	3.33	3.99
Shinhan Financial Group	1.71	2.88	1.95	1.67	2.36	2.18	2.52	3.22

The growth of the latter earnings increased the return on average equity (RoAE) of KEB significantly. The resulting BIS Ratio of 13.68% by the end of 2005 is the highest a Korean bank has reached within the last years (see Table 5).

Table 5

Return on average equity and BIS Ratio of Korean banks

	RoAE in %				BIS Ratio in %			
Banks	2002	2003	2004	2005	2002	2003	2004	2005
Korea Exchange Bank	3.00	-42.73	20.41	44.84	9.31	9.32	9.47	13.68
Kookmin Bank	13.33	-7.99	6.25	20.78	10.41	9.81	11.14	12.84
Shinhan Financial Group	17.83	6.11	14.11	18.17	10.92	10.49	11.94	12.27

This brief retrospective review of the financial performance also represents clear indications for the success of the turnaround initiated by Lone Star, but focuses on past performance. Therefore,

the latter approach can only be an indicative approach to support the calculated value creation by the benchmark approach. A summary will be provided in the following to conclude the key drivers for success.

Determination of Success Factors and Evaluation of the Presented Analysis

The presented case study approach provides an in-depth view of the measures and implications initiated and performed by the financial investor. Even without the exit of the US fund, various key factors for the successful turnaround can be named.

Lone Star's profound knowledge of the Korean market, as well as its long-term experience in the financial industry, served as a catalyst for the success of KEB's turnaround. In addition, the following criteria can be identified as critical success factors for the performed value creation: 1) Macroeconomic environment: The selection of a bank which was located and operating in a country with growth potential after an economic downturn was a key driver for Lone Star's success. Additionally the low interest rates in Korea and the regulatory reforms within the financial sector enabled Lone Star to implement financing measures and to act in a stabilized economic environment; 2) Target selection, deal preparation, and execution: The extensive knowledge of the target market served as an essential reason for the turnaround. Based on this and the negotiated key deal terms – especially the acquisition of the majority shareholding and the ability to nominate key decision makers – the private equity fund was able to initiate measures for enabling the turnaround; 3) Governance and corporate measures: The adoption of international management practices and the execution of corporate measures, in addition to a stringent credit and risk management, were essential to assign performance goals and to generate synergies of scope; 4) Financial reengineering program: Restructuring the balance sheet on the asset and liability side supported by the interest level was a key in executing the new business strategy; 5) Business strategy: The clearly identified customer orientation was the basis for the extension of business with the existing customer base and the acquisition of new clients. Additionally the focus on KEB's core competencies, in combination with achieved quality improvement, was an important factor for the success; 6) Human Resource measures: The reshuffling of the employee structure, in combination with and implementation of an incentive system, was the basis for the cultural development. Even though each of the listed factors has significant impact on KEB's performance, the selected and implemented mix of the measures is the essence of the success of Lone Star's value creation.

The presented research results are based only on a single transaction. To verify these results, a broader data sample should be analyzed. Even if there might be only a limited number of transactions where a private equity fund invested in a regulated bank, the evidence of the results should be supplied.

In addition, the conditions of the acquisition can be questioned. On the one hand, this transaction was partially a government privatization and, therefore, represents an ownership change that rarely happens in comparison to banking M&As and private equity investments in other industries. On the other hand, therefore, the selection of competitors and selected benchmarks can be questioned.

Finally, a final judgment of the value creation performed by Lone Star cannot be ultimately made due to the exit, which was not performed until the end of November 2006. Additionally, it needs to be considered that Lone Star had negotiated favorable terms in its initial deal to restructure KEB (e.g., board seats), but parts of the initiated and implemented measures required the approval and know-how of the other majority shareholders as well and not only the selected Lone Star representatives.

Conclusion and Outlook

The objective of this case study was to analyze the value creation of a private equity fund in the banking industry. The performed analysis clearly states the positive impact which Lone Star's engagement had for the performance of KEB. Being trapped in a regulated environment and, addi-

tionally, continuously monitored by quasi-government shareholders, a significant portion of KEB's performance can be attributed to Lone Star. The selected approach provides a comprehensive overview of the measures performed by Lone Star and the associated limitations the fund had to deal with. Therefore, it fills the gap of the performed banking M&A and private-equity field research. In order to extend the current research on banking and private equity, the presented case study serves as a valuable addendum in named fields.

References

1. Ahn, Choong Yong. 2001. "Financial and Corporate Sector Reform in South Korea: Towards a New Development Paradigm". Working Paper Draft prepared for presentation at the MDT Workshop at Tokyo University, Seoul.
2. Armstrong, Chris/Davila, Antonio/Foster, George. 2005. Venture-Backed Private Equity Valuation and Financial Statement Information, Stanford Graduate School of Business, Stanford.
3. Bank for International Settlement. 2006. International Convergence of Capital Measurement and Capital Standards – A Revised Framework, Comprehensive Version, Basel.
4. Bank of Korea. 2006. Annual Report 2005, Seoul.
5. Beitel, Patrick/Schiereck, Dirk/Wahrenburg, Mark. 2003. Explaining the M&A-success in European Bank Mergers and Acquisitions, Oestrich Winkel.
6. Berger, Allen N./Udell, Gregory F. 1998. The Economics of Small Business Finance: The Roles of Private Equity and Debt Markets in the Financial Growth Cycle, in: Journal of Banking & Finance, o. Jg (1998), Vol. 22, pp. 1-52.
7. Brav, Alon/Gompers, Paul A. 1997. Myth or Reality? The Long-Run Underperformance of Initial Public Offerings: Evidence from Venture and Nonventure Capital-Backed Companies, in Journal of Finance, Vol. 52, No. 4.
8. Brown, S./Warner, J. 1980. Measuring security price performance, Journal of Financial Economics, 8, pp. 205-258.
9. Brown, S./Warner, J. 1985. Using Daily Stock Returns - The Case of Event Studies, in: Journal of Financial Economics, Vol. 14, pp. 3-31.
10. Calomiris, C.W. /Karceski, J. 1998. Is the bank merger wave of the 1990s efficient? Lessons learned from nine case studies, The AEI Press, Washington, D.C.
11. Chopra, Ajai/ Kang, Keneth/Karasulu, Meral/Liang, Hong/Ma, Henry/Richards, Anthony. 2001. From Crisis to Recovery in Korea: Strategy, Achievements, and Lessons; IMF Working Paper WP/01/154, Washington, D.C.
12. Cuny, C.J./Talmor, E. 2006. A theory of Private Equity Turnarounds, Working Paper, Washington University in St. Louis, London Business School.
13. Delhaise, Philippe. 1998. Asia crisis: the implosion of the banking and finance systems, Singapore.
14. Dymski, Gary. 2004. Korea's Post-Crisis Banking Crisis and the Global Bank Merger Wave, Sacramento.
15. Effinger, Anthony/Yu, Hui-yong. 2005. Bad-Loan Power Play; in: Bloomberg Markets, March 2005; New York.
16. European Venture Capital Association (EVCA). 2005. EVCA Yearbook 2005, Annual Survey of Pan-European Private Equity & Venture Capital Activity, Brussels.
17. Fama, Eugene. 1991. Efficient Capital Markets: II, in: The Journal of Finance, Vol. 46, No. 5, pp. 1575-1617.
18. Fenn, George W./Liang, Nellie/Prowse S. 1995. The Economics of the Private Equity Market, Federal Reserve Board, Washington D.C.
19. Fraser-Samson, Guy. 2007. Private equity as an asset class, West Sussex.
20. FSS. 2003. Weekly Newsletter, Vol. IV, No. 34, Seoul.
21. FSS. 2006. BIS Capital Adequacy Ratio of Domestic Banks: End-2005, Press Release March 8, 2006, Seoul.

22. Gompers, Paul A. 1995. Optimal Investment Monitoring and the Staging of Venture Capital, in: The Journal of Finance, Vol. L, No. 5, pp. 1461-1489.
23. Hahm, Joonho. 2005. The Korean Model of Corporate Governance: Issues and Lessons in Reform of Bank Governance (Woori Bank); Hills Governance Center at Yonsei University, Working Paper Series No. 05-01, Seoul.
24. Hand, John R.M. 2004. The Value Relevance of Financial Statements in Private Equity Markets, University of North Carolina at Chapel Hill.
25. Irvine, Steven. 2006. Korea's real winners: local banks not foreign equity. http://www.financeasia.com/article.aspx?CIID=69792 (accessed: December 21, 2006).
26. Kang, Chungwon. 2003. From the Front Lines at Seoul Bank: Restructuring and Reprivatization, IMF Working Paper, Washington, D.C.
27. KEB. 1999. Annual Report 1998, Seoul.
28. KEB. 2001. Annual Report 2000, Seoul.
29. KEB. 2003. Presentation 2002 Year-end Report, Seoul.
30. KEB. 2005. Presentation 2004 Year-end Report, Seoul.
31. KEB. 2005a. Annual Report 2004, Seoul.
32. KEB. 2006. Annual Report 2005, Seoul.
33. KEBCS. 2003. Roadshow Presentation May 2003, Seoul.
34. Kester, Carl/Luehrmann, Timothy. 1995. Leveraged Buyouts – besser als ihr Ruf, in: Harvard Business Manager, 17. Jg. (1995), Heft 4, S. 75-85.
35. Knedlik, Tobias/Stroebel, Johannes. 2006. The role of banking portfolios in the transmission from currency crises to banking crises – potential effects of Basel II, Institut für Wirtschaftsforschung Halle – Discussion Papers, No. 21, Halle.
36. Korea Development Bank. 2006. Korea's M&A Market and Role of Financial Investors; in: 2nd Quarterly Review, Seoul.
37. Lerner, Joshua/Hardymon, Felda/Leamon, Ann. 2005. Venture Capital and Private Equity. A Casebook, Boston.
38. Lone Star. 2006. John Grayken – Press Conference, New York.
39. Loos, Nicolaus. 2006. Value Creation in Leveraged Buyouts, Analysis of Factors Driving Private Equity Investment Performance, Dissertation Universität St. Gallen.
40. OECD. 2003. OECD Economic Surveys Korea, Volume 2003/5, Paris.
41. OECD. 2005. Economic Surveys Korea, Paris.
42. Peterson, P. 1989. Event Studies: A Review of Issues and Methodology, in: Quarterly Journal of Business and Economics, Issue 28, pp. 36-66.
43. Pilloff, Steven J./Santomero, Anthony M. 1996. The Value of Bank Mergers and Acquisitions; Wharton Working Paper 97-07, Philadelphia.
44. Thomson Financial. Datastream, SDC and Worldscope Database, New York.
45. Van der Geest/van Frederikslust. 2001. Initial Returns and Long-Run Performance of Private Equity – Backed Initial Public Offerings on the Amsterdam Stock Exchange, Working Paper for EFMA 2001 Lugano Meetings, Rotterdam.
46. Wu, Ylin. 2000. The Choice between Public and Private Offerings, Washington University, St. Louis.