

## A Financial Ratio Analysis of Restructured Banks vs Banking Sector in Kazakhstan

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**Abstract:** This paper studies the performance of Kazakhstan's banking sector for the period 2007- 2012. The following financial ratios were employed to measure Kazakhstan's banking sector performance: the profitability, liquidity and credit quality performance. The study also compares financial ratios of whole banking sector with financial ratios of three restructured banks (RB) in Kazakhstan. The study found that despite a slight improvement by 2012, they have not reached pre-crisis levels. A significant changes in trend that emerged after the global financial crisis in 2007, reached its point of failure in 2009. This resulted in falling profitability, low liquidity and increasing non-performing loans (NPL) in the Kazakhstan banking sector.

**Key words:** Financial ratio analysis • Bank • Bank restructuring • Bank performance • Profitability

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### INTRODUCTION

The global financial crisis and destabilization of markets have had negative impact on the banking industry of Kazakhstan. The industry shrunk in terms of asset value, loan volumes and attracted client deposits. For instance, during the period of 2007 to 2012 total assets of second tier banks to GDP of Kazakhstan decreased almost two times to 44.1% (compared to 2007 - 87.7 %). This period was also characterized by reduced volumes of loans and attracted deposits: the rates of size of the loan portfolio and deposits to GDP decreased from 66.6% to 37.10 % and from 48.2 % to 27.10 % respectively. In addition, there is a significant deterioration in asset quality, with the proportion of non-performing loans of the banking sector increasing to 36.7 %.

Recently major studies were focused on assessing the impact of Global Financial Crisis on banking performance. Dietrich and Wanzenried (2011) investigated factors that affect the profitability of Swiss commercial banks over the period from 1999 to 2009 by using the before-crisis period of 1999–2006 and the crisis years of 2007–2009. Their results proved that the financial crisis had a significant impact on banks profitability [1]. Vazquez and Federico (2012) analysed the bank funding structures and determined that the banks with weaker structural liquidity and higher leverage in the before-crisis period were more likely to fail afterward. [2]. Berger and

Bouwman (2010) considered the monetary policy affect total bank liquidity creation. They found difference in impact before and after the crisis and that, liquidity creation tends to be high prior to financial crises. [3]. Mehta, A. (2012) examined the financial performance indicators of UAE banks for the period of 2005 to 2010 in order to identify whether the financial performance indicators of UAE banks have been impacted by the Global economic crisis. The results of the study concludes that all profitability, liquidity ratios have decreased during the crisis period. On the contrary the Leverage ratios of UAE's banking sector have increased during the crisis period as compared to the pre-crisis period [4]. Cornett, M., McNutt, J., Strahan, P., Tehranian, H. (2011) concluded that liquidity dried up during the financial crisis of 2007-2009 and the banks with more illiquid asset portfolios, increased their holdings of liquid assets and decreased lending [5]. Wang, X. (2010) examined relation between insider ownership and bank performance in the United States before and during recent financial crisis of 2007-2009. The results of research found that managers adopted effective strategies on the bank performance before the crisis, but those make a negative impact during financial crisis. [6]. Kumbirai and Webb (2010) measured the performance of South Africa's commercial banking sector for the period 2005- 2009. The research found that overall bank performance increased considerably in the first two years of the analysis.

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A significant change in trend is noticed at the onset of the global financial crisis in 2007, reaching its peak during 2008-2009. This resulted in falling profitability, low liquidity and deteriorating credit quality in the South African Banking sector. [7]. Najjar, N. (2013) analyzed and calculated important financial ratios of major financial institutions in Bahrain as well as compared their performance in the context of the global financial crisis. The study revealed differences in the ratios used by different banks, especially before and after the financial crisis. [8]

From review of literature, it can be concluded that many studies have been conducted to measure the impact of financial crisis on bank performance in developed and developing countries but there is no studies have been conducted in Kazakhstan. This paper aimed to expose the impact of global financial crisis on Kazakhstani banking sector performance.

**MATERIALS AND METHODS**

This paper uses a descriptive financial ratio analysis to measure, describe and analyze the performance of commercial banks in Kazakhstan during the period 2007-2012.

According to Atrill (2006), “by calculating a small number of ratios, it is often possible to build up a good picture of the position and performance of a business.” [9]. Bikker, J. (2010) considers “Adequate performance of financial institutions is of crucial importance to their customers. ... measuring the performance of banks is hard and that indicators differ strongly in quality” [10]. Furthermore, “The primary objective of ratio analysis is to point out areas requiring further investigation” [11].

This analysis covers all 38 second-tier banks of the Republic of Kazakhstan for three periods: 2007 (before crisis), 2009 (before restructuring) and 2012 (after restructuring). There is separately marked data set for three restructured banks (BTA Bank, Alliance Bank and Temirbank). The data was obtained from National Bank

website and the bank’s financial statements and websites. A list of variables and the formula used for their calculation have been given in Table 1.

**RESULTS**

Figure 1 shows the profitability performance of the banking sector of Kazakhstan for the period of 2007 to 2012. Profitability is measured in terms of ROA, ROE and Cost-to-Income (C/I).

The data in Figure 1 shows that the banking sector still has not recovered from the effects of the global financial crisis. All indicators on 01.01.2013 are below pre-crisis levels. 2009 was the worst year for the banking industry in general. During this period, three banks (BTA Bank, Alliance Bank and Temirbank (subsidiary of BTA bank )) have defaulted on their obligations. Result was restructuring of these banks. Loans and interest income are the main factors contributing to the growth of profitability of the bank's assets. However, the lack of long-term investments from foreign investors and poor asset quality led the banking sector to unprofitability. In 2009 the banking industry as a whole experienced a net loss of 19.4 billion U.S. dollars (as comparison 2007 result - a profit of 1.8 billion U.S. dollars) and the value banking industry assets decreased in this period. Nevertheless 2012 ended for the banking industry with a net profit of U.S. \$ 1.5 billion due to other income (net revenue from liabilities writing off), mainly due to second restructuring of BTA Bank debts. As a result, profitability improved in 2012. However, the result is mostly quantitative rather than qualitative.

The trend observed for the ROA and ROE can also be observed in the ratio of expenses to income. CVI ranged from 87.7 % in 2007 to 140.1 % in 2009. CVI ratio for the banks with foreign participation in the analyzed period does not exceed 88 percent, which corresponds to the pre-crisis levels for the entire banking industry. Moreover, this figure for foreign banks from China ranged between 47.9 and 62.2 percent in 2012.

Table 1: Key indicators used to assess banking sector performance

Performance area	Formula	Symbol
Profitability	1) Return on Assets= Net Profit/ Total Assets	ROA
	2) Return on Equity= Net Profit/ Total Equity	ROE
	3) Cost to Income Ratio = Total Cost/Total Income	C/I
Liquidity	1) Liquid assets to deposit-borrowing ratio = Liquid Assets/Customer Deposit and Short Term Borrowed Funds	LADST
	2) Net Loans to total asset ratio= Net loans/total assets	NLTA
	3) Net loans to deposit and borrowing= Net loans/total deposits and short term borrowings	NLDST
Credit	1) Non-Performing Loans to Gross Loans= Non-Performing Loans/ Gross Loans	NPLGL

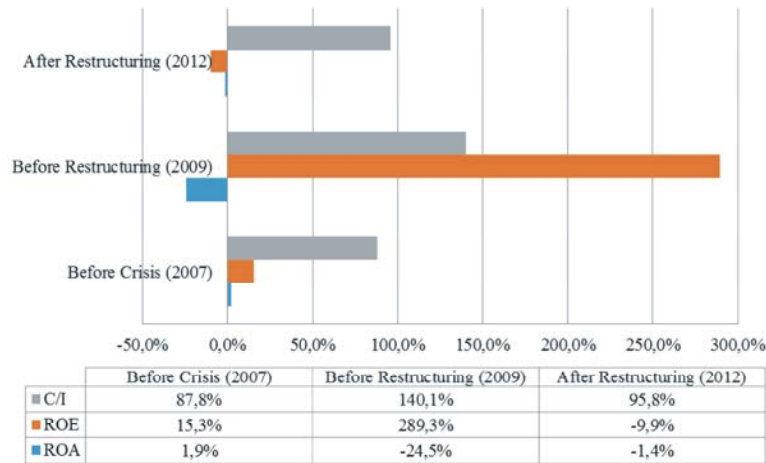


Fig. 1: Profitability Performance

Table 2: Restructured Banks Profitability Performance Indicators, (%)

Banks	Before Crisis (2007)			Before Restructuring (2009)			After Restructuring (2012)		
	ROA	ROE	C/I	ROA	ROE	C/I	ROA	ROE	C/I
BTA Bank	2,4	16,0	86,5	-36,3	75,6	236,3	24,4	176,4	98,7
Alliance Bank	3,6	27,2	85,4	-56,0	66,9	483,1	-1,2	-21,3	94,7
Temirbank	2,5	14,9	83,3	-74,3	159,5	367,3	1,2	4,8	91,0

Table 3: Liquidity Performance Indicators

Bank	Before Crisis (2007)			Before Restructuring (2009)			After Restructuring (2012)		
	NLTA	NLDST	LADST	NLTA	NLDST	LADST	NLTA	NLDST	LADST
BTA Bank	79,5%	156,2%	2,5%	27,3%	38,8%	2,7%	20,4%	57,3%	6,9%
Alliance Bank	70,6%	154,9%	3,8%	28,9%	30,4%	1,8%	65,5%	117,3%	3,3%
Temirbank	82,1%	154,9%	3,7%	76,0%	85,7%	2,2%	46,6%	86,5%	4,4%
Banking sector	74,8%	135,9%	3,1%	52,0%	77,0%	2,9%	60,3%	98,1%	3,9%

Table 2 shows the financial situation of RB for the pre-crisis period (2007), before restructuring (2009) and after the restructuring (2012). It should be noted that the RB has not still regained their pre-crisis levels. Restructuring carried out in Alliance bank and Temirbank have had a relatively positive effect on the profitability ratios of these banks. While BTA Bank, which has undergone two restructurings had left its indicators almost unchanged.

The positive trend of C/I ratio in RB is associated with the net income from writing off their obligations after negotiations with bank creditors. Increase of the revenue of the income statement has led to a decrease in C \ I in comparison with the beginning of the restructuring of BTA Bank, Alliance Bank and Temirbank to 2.4, 5.1 and 4.0 times respectively. However, this figure for the BTA exceeds industry average for the year 2012 by 2.9% and equals 98.7 %, which is higher than the pre-crisis figure by 12.2% (2007 -86.5 %).

Table 3 shows liquidity trends in NLTA, NLDST, LADST for the whole banking industry and for

restructured banks for three different time periods: pre-crisis, before and after the restructuring.

Liquidity indicators measure the ability to meet financial obligations as they fall due and are crucial in ensuring the financial stability of banking institutions. Overall liquidity ratios show deterioration by 2009 compared to 2007 numbers and demonstrate a slight recovery by 2012. However, none of the indicators, except for LADST, still have not reached pre-crisis levels. This indicator shows an increase compared to 2007 level for the banking industry by a rate of 0.9 % and equals 3.9 % in 2012, for Temirbank - an increase of 0.7 % and for BTA Bank - an increase of 4.4%. At the same time, the liquidity coefficient shows a relatively small fluctuation in comparison with the other two coefficients.

Highest oscillations are observed for coefficient NLDST in 2009 compared to 2007 value, especially for BTA Bank (decrease 4 times) and Alliance Bank (decrease of 5.1 times). The results of the coefficient NLTA show a positive trend in 2012 in comparison to 2009, however, restructuring has not helped to improve this coefficient

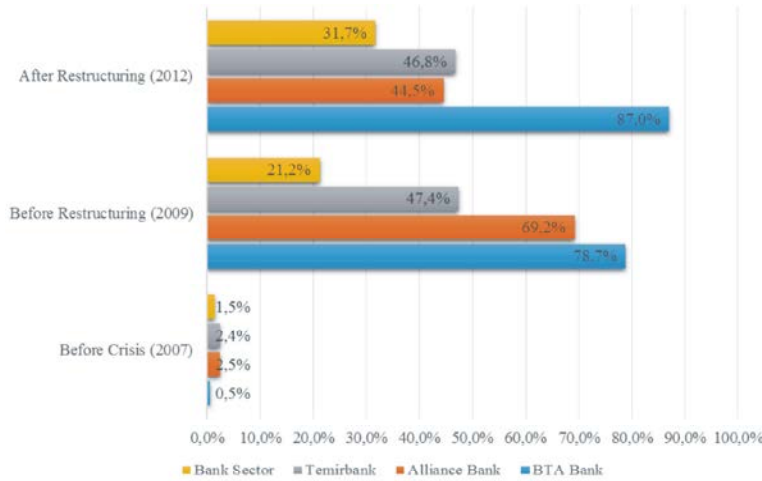


Fig. 3: RB Credit Asset Quality Performance Vs. Banking Sector

value for Temirbank, which shows reduction before restructuring by 23.4% and equals 46.6 % in 2012. The main reasons for the lack of improvement in liquidity ratios - the poor quality of assets, the increased share of short-term deposits and short-term loans in the portfolio of banks' assets. The following factor may serve as an explanation for all the "troubles" of Kazakhstan's banking industry. Asset quality of the banking industry (NPLGL) in comparison with the data on RB are shown in Figure 3.

Asset quality of the banking sector, as well as RB significantly deteriorated due to the global financial crisis. The worst trends were demonstrated by three RBs, which experienced a sharp increase in non-performing loans in 2009. Debt restructuring had positive effects on coefficient NPLGL of Alliance Bank (down by 24.7% in 2012 compared to 2009) and a slight decrease in Temirbank (0.6 %), while BTA Bank situation has not improved and experiences an increase of 2.3%.

The current state of asset quality of the banking industry is a consequence of poor risk management and banking supervision in 2005-2007.

### CONCLUSION

This article measured the financial performance of the banking sector in Kazakhstan, including three restructured banks for three periods.

The results show that profitability, liquidity and credit quality of the Kazakhstani banking industry have not improved and they are below pre-crisis levels (2007). Banks, in particular, BTA Bank, Alliance Bank and Temirbank aggressively increased their loan portfolios in the years 2005-2007 in the absence of effective policy of

credit risk management. This is resulted in the upward trend in ratio of non-performing loans. The analysis also found that the level of non-performing loans of Kazakhstani banks reached the highest levels in the world in 2012. This is compounded by the dependence of banks on long-term debt markets and the fact that the deposits expiring within a year represent about 80 % of total deposits. High debt burden of Kazakhstani banks, low profitability and strong influence of foreign assets and funding necessitated the need for government's financial support.

The results of this study may be found useful not only for bank supervisors to improve the financial situation banks, but also for users of banking services in order to make right decisions.

Finally, despite the fact that this study was focused on the specific ratios, many other financial indicators can be used. Examples are the economic value added (EVA), as well as other performance measures, which can evaluate the qualitative indicators such as customer satisfaction, social responsibility and use of technology.

### REFERENCES

1. Dietrich, A. and G. Wanzenried, 2011. Determinants of bank profitability before and during the crisis: Evidence from Switzerland Journal of International Financial Markets, Institutions and Money, Elsevier, vol. 21(3), July 2011, pages 307-327. Date Views: 18.11.2013. [http://www.fma.org/Istanbul/Papers/DietrichnWanzenried-Determinants Banking Profitability.pdf](http://www.fma.org/Istanbul/Papers/DietrichnWanzenried-Determinants_Banking_Profitability.pdf)

2. Vazquez, F. and P. Federico, 2012. Bank Funding Structures and Risk: Evidence from the Global Financial Crisis. IMF Working Paper, WP/12/29, January 2012. Date Views: 11.11.2013. <http://www.imf.org/external/pubs/ft/wp/2012/wp1229.pdf>.
3. Berger, A. and C. Bouwman, 2010. Bank Liquidity Creation, Monetary Policy and Financial Crises. Date Views: 10.11.2013 <http://web.mit.edu/cbouwman/www/downloads/BergerBouwmanFinCrisesMonPolicyAndBankLiqCreation.pdf>.
4. Mehta, A., 2012. Financial Performance of UAE Banking Sector- A Comparison of before and during Crisis Ratios. International Journal of Trade, Economics and Finance, 3(5): 381-387. Date Views: 30.11.2013. <http://www.ijtef.org/papers/232-X10017.pdf>
5. Cornett, M., J. McNutt, P. Strahan and H. Tehranian, 2011. Liquidity risk management and credit supply in the financial crisis. Journal of Financial Economics. 101 (2011), pp: 297-312. Date Views: 05.12.2013 <https://www2.bc.edu/~tehran/Hassan%20published%20paper/JFE%20Print.pdf>.
6. Wang, X., 2010. "Insider Ownership and Bank Performance: Evidence from the Financial Crisis of 2007-2009," Project Master's Degree, Simon Fraser University, Canada, 2010.
7. Kumbirai, M., and Webb, R. 2013. A financial Ratio Analysis of Commercial Bank Performance in South Africa, African Review of Economics and Finance, Vol. 2, No. 1, pp.30-53. Date Views: 06.12.2013. <https://www.google.kz/#q=Kumbirai%2C+M.%2C+%26+Webb%2C+R.++A+financial+Ratio+Analysis+of+Commercial+Bank+Performance+in+South+Africa>
8. Najjar, N., 2013. Can Financial Ratios Reliably Measure the Performance of Banks in Bahrain? International Journal of Economics and Finance; Vol. 5, No. 3; 2013. Date Views: 03/12/2013. <http://www.ccsenet.org/journal/index.php/ijef/article/view/25048/15619>.
9. Atrill, P., 2006. Financial Management for Decision Makers, 4<sup>th</sup> edition Pearson Education, Edinburg Gate Harlow, pp: 538.
10. Bikker, J., 2010. Measuring Performance of Banks: An Assessment. Journal of Applied Business and Economics vol. 11(4) 2010. Date Views: 28.11.2013. <http://www.na-businesspress.com/JABE/BikkerWeb.pdf>.
11. Financial Statement Analysis of Financial Sector 2012. State Bank Pakistan. Statistics and DWH Department. Date Views: 28.11.2013. <http://www.sbp.org.pk/departments/stats/FSA-2008-12%20.pdf>.