THE ROLE OF PROVISIONS IN EARNINGS AND CAPITAL MANAGEMENT IN KAZAKHSTANI BANKS

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Abstract:This thesis examines whether banks in Kazakhstan were involved in earnings management behavior through manipulation of loan loss provisions. In addition, banks were tested for possible use of loan loss provisions in order to manage regulatory capital. The sample size consists of the tenth largest banks of Kazakhstan as at 1 January 2013. Research is conducted using ordinary least-squares regression for periods 2008 - 2013. Additionally, the data was split into two sub-samples to test the banks for possible manipulation of loan loss provisions for earnings and capital management during the time of financial crisis (sub-sample period 2008 - 2010) and after financial crisis (sub-sample period 2011 - 2013). The analysis finds no support for the hypothesis that banks in Kazakhstan used loan loss provisions for earnings and capital management neither during 2008 - 2013, nor during 2008 - 2010 or 2011 - 2013.

Key words:banking system, loan loss provision, capital management, earnings management.

INTRODUCTION

The world financial crisis has intensified the significance of management of credit risks and accounting policies in the banking sector. Existing loan loss accounting has raised serious concerns about its validity and the matter of earnings management via use of loan loss provisions was recalled. The regulators of banking industry came across with the following two questions: 1) whether the recognized impairments were sufficient, and 2) whether the deep downside of the economic cycle is the right time to account for these expected credit losses. [1]

The main purpose of this thesis is to get deeper understanding on developments of the banking industry of the Republic of Kazakhstan as well as to consider the meaning of loan loss provisions in banking sector.

It employs a regression analysis to investigate the relationship between the level of loan loss provisions of the banks and variables that capture the discretionary component and variables that capture the non-discretionary components i.e. credit risk component. The study addresses the following research questions:

- Were banks in Kazakhstan involved in manipulation of earnings management through the manipulation of loan loss provisions?
- Were banks in Kazakhstan involved in manipulation of capital management through the manipulation of loan loss provisions?
- Was the relationship between loan loss provisions and its non-discretionary (credit-risk related) components prominent?

This study considers time period during and after financial crisis (sample period 2007 - 2012) and, additionally, the sample was split into two sub-samples, first sub-sample 2007 - 2009, second sub-sample 2010 - 2012 in order to get better understanding of whether banks in Kazakhstan were involved in earnings and capital management via use of loan loss provisions during the financial crisis and after it.

HYPOTHESIS DEVELOPMENT

Prior researches show that that loan loss provisions are used by management of the banks in different countries to smooth income and manage regulatory capital. The objective of this research is to examine whether the banks in Kazakhstan were involved in earnings and capital management through manipulation of loan loss provisions during the sample period 2007 - 2012 as well as during the financial crisis (sample period 2007 - 2009) and after financial crisis (sample period 2010 - 2008. Therefore, the principal research question can be phrased as follows:

Were banks in Kazakhstan involved in manipulation in earnings and capital management through the manipulation of loan loss provisions?

H1: Banks in Kazakhstan use loan loss provisions for earnings management.

H2: Banks in Kazakhstan have been involved in use of loan loss provisions for capital management.

H3: The relationship between loan loss provisions and its non-discretionary (credit-risk related) components has been prominent.

DATA AND METHODOLOGY

3.1 DATA

This thesis investigates income smoothing and capital management on a sample range. The analysis is performed on commercial banks operating in Kazakhstan and excludes other types of financial institution (such as investment banks, investment and trust corporations, finance companies, and banks of specialized nature). The sample of 10 largest banks in Kazakhstan in terms of assets as at 1 January 2013 will be taken for analysis as these banks comprise 82% of total assets of banking sector of Kazakhstan.

Sample period is 6 years, from 2007 to 2012. Such data as total assets, loan loss provisions for the current year, loan loss provisions for the previous year, earnings before provisions and taxes, beginning balance of loan loss reserves (loan loss allowances) was obtained from financial statements of the banks published on corporate web-sites of the banks and Kazakhstan Stock Exchange.

METHODOLOGY

A linear regression model with ordinary least squares was used for this thesis using SPSS statistical software. Bank loan loss provisions have been regressed on different banking and macroeconomic indicators as explanatory variables.

The regression model for this article has been adopted similar to G.Garsva, S.Skuodas, K.Rudzioniene[1]. Regression model also includes variables identified by Perez et. al ([2]and Anandarajan et al. [3].The model is shown in the following equation:

$$LLP_{i,t}=\beta_0+\beta_1 LLP_{i,t-1}+\beta_2 EBPT_{i,t}+\beta_3 TL_{i,t}+\beta_4 NPL_{i,t}+\beta_5 GDPG_{i,t}+\beta_6 CAP_{i,t}+\beta_7 LLA_{i,t-1}+\varepsilon_{i,t(1)}$$

All variables (except for GDP) were scaled by total assets in order to account for differences in bank sizes.

Dependent variable:

$LLP_{i,t}$: Loan Loss Provisions for the current year. Independent variables:

$LLP_{i,t-1}$: Loan Loss Provisions for the previous year. This is lagged dependent variable. As loan loss provisions are typically considered to be of a dynamic nature, the lag of the dependent variable should allow to capture the speed of adjustment of loan loss provisions to an equilibrium level [1]. The relationship is expected to be positive.

$EBPT_{i,t}$: Earnings before provisions and taxes. This is a proxy for the discretionary component of loan loss provisions. In case loan loss provisions were utilized for income smoothing or earnings before provisions and taxes are adjusted to lower the negative impact of inflated provisions, it is expected to get positive relationship between these two variables.

$TL_{i,t}$: Total loans. The ratio of total loan to total assets measures the overall risk exposure of the bank in its activities. This ratio might be accepted as a measure of credit risk, and the higher the ratio, the higher the credit risk of the bank. The relationship is expected to be positive.

$GDPG_{i,t}$:GDP growth. This is the annual growth rate of every country's gross domestic product. This variable captures the effect of macroeconomic conditions (business cycle) on loan loss provisions [4]. At the same time it is an indirect measure of loan portfolio credit risk, included to control for the documented procyclical effect of provisioning [5]. This is non-discretionary component of provisions and the relationship is expected to be negative.

$NPL_{i,t}$:Non-performingloans. It is credit risk variable that measures the rise in the bank's actual default risk [2]. Higher NPLs will necessitate higher provisions. [6].This is another non-discretionary component of provisions and the relationship is expected to be positive.

$CAP_{i,t}$:Capital adequacy ratio. The ratio of total capital to risk-weighted assets. This is the variable to determine the use of loan loss provisions in capital management. Low ratio of capital or the closer to the minimum required ratio of the regulator, the more likely the bank will adjust its loan loss provisions estimates downward. Capital adequacy ratio is the proxy for discretionary component of loan loss provisions; the relationship between two variables is expected to be positive.

$LLA_{i,t-1}$:Loan Loss Allowances. It is balance sheet item which measures the total stock of accrued loans provisions. An increase in the current period LLA is usually a signal of lower LLP in the period that follows. This is a non-discretionary component of LLP and the expected association is negative [1].

$\varepsilon_{i,t}$: Error term.

4. Analysis and Findings

Descriptive statistics

Table 1 summarizes descriptive statistics for the dependent and independent variables.

Table 1. Descriptive statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis
LLP for current year/TA	60	-.02903	.37396	.0470845	.07907323	3.152	9.870
LLP lagged /TA	60	-.02571	.55296	.0503147	.10622960	3.555	12.514
EBPT/TA	60	-.19275	.72058	.0527043	.11921967	3.367	18.327
CAP/TA	60	-.83717	.57585	.0819065	.18327079	-3.461	17.715
TL/TA	60	.43583	1.35765	.7911000	.17775817	1.106	2.149
NPL/TA	60	.00149	1.18120	.1776532	.25839931	2.357	5.371
GDPG	60	.05947	.28269	.2023401	.08858982	-.741	-1.349
LLA/TA	60	.00652	1.21768	.1731914	.29061734	2.500	5.619

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Valid N (listwise)	60						

The mean of LLP is 0,047 and it ranges between -0,029 and 0,374. The sign varies from negative to positive as some banks such as Alliance and Sberbank showed recovery of provisions in the latest periods as the result of improvement of financial performance in these banks. The mean of EBPT is 0,527. The number varies between -0,245 and 0,553 as due to financial crisis some banks such as BTA and Alliance reported losses in their financial statements. Financial crisis also caused negative capital in BTA and Alliance and as the result CAP ranges between -0,838 and 0,576 with the CAP mean being 0,82.

Correlation matrix

Below tables represent correlation matrix showing Pearson's correlation and Spearman's correlation coefficients among the variables.

Table 2. Pearson Correlations

	LLP for current year/TA	LLP lagged/TA	EBPT/TA	CAP/TA	TL/TA	NPL/TA	GDPG	LLA/TA
LLP for current year/TA	1	.543**	-.418*	-.600**	.283*	.301*	-.208	.148
LLP lagged/TA	.543**	1	.162	-.735**	.468**	.642**	-.160	.545**
EBPT/TA	-.418**	.162	1	.364**	.144	.186	.186	.364**
CAP/TA	-.600**	-.735**	.364*	1	-.424**	-.533**	.276*	-.359**
TL/TA	.283*	.468**	.144	-.424**	1	.840**	-.113	.750**
NPL/TA	.301*	.642**	.186	-.533**	.840**	1	-.206	.925**
GDPG	-.208	-.160	.186	.276*	-.113	-.206	1	-.042

LLA/ TA	.148	.545**	.364*	-.359**	.750**	.925**	-.042	1

**. Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level (2-tailed).

Pearson correlation represented in Table 8 showed that higher provisions (LLP) can not be associated with higher earnings before provisions and taxes (EBPT) and capital (CAP), as the relationship between these variables is negative but statistically significant. LLP can be associated with the provisions for the previous year (LLP lagged), non-performing loans (NPL), total loans (TL) as the relationship between these variables is positive and statistically significant. The correlation between LLP and growth of GDG of Kazakhstan (GDPG) is negative but statistically insignificant. At the same time, provisions positively correlated with the loan loss allowances (LLA) and the relationship between variables is statistically insignificant.

CONCLUSION

This article investigates managerial discretion exercised over loan loss provisions in order to achieve income smoothing and regulatory capital management in the banking sector of the Republic of Kazakhstan. A linear regression model was estimated to examine for these with loan loss provisions being modeled against its discretionary and non-discretionary components. The discretionary component for income smoothing is earnings before provisions and discretionary component for regulatory capital management is total capital. Statistical analysis was performed for ten largest commercial banks of Kazakhstan by total assets as at 1 January 2013 comprising 82% of total banking assets of Kazakhstan at this date. The results of statistical analysis are as follows.

Both hypotheses were rejected meaning that banks in Kazakhstan were not involved in earnings management behavior and capital management through use of loan loss provisions neither during the sample period from 2007 to 2012, nor during sub-samples periods from 2007 to 2009 and from 2010 to 2012 as expected relationship and statistical significance was not confirmed by regression results.

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