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A FRAMEWORK OF EVALUATION OF COMMERCIAL BANKS

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Abstract. The current crisis increases the threat of failure of commercial banks, which is being indicated by statistically an increasing number of already failed commercial banks. It is shown that deposit insurance schemes do not cover the full risk of losing deposits at such banks, thus making evaluation of stability and soundness of commercial banks an important task. Since banking business has many different aspects, evaluation of a commercial bank must simultaneously comprise many areas. This paper proposes the framework of such an evaluation and provides results for Lithuanian commercial banks.

JEL Clasification: C63, G21.
Keywords: bank evaluation, stability and soundness, criteria, multi-criteria methods, bank rating.
Reikšminiai žodžiai: bankų vertinimas, stabilumas ir stiprumas, kriterijai, daugiakriteriai metodai, bankų reitingavimas.

1. Introduction

Demand for evaluation of commercial banks in terms of stability and soundness has peaked during the current crisis. Ratings of commercial banks provided by major rating agencies did not prevent investors who invested in bank capital from losses during bank failures, as well not foreseeing bankruptcies of banks and financial firms. Ratings were downgraded with a considerable lag behind the banking industry, and have faced serious problems. On the other hand, deposit insurance schemes became susceptible to failures, thus leaving depositors unprotected for several reasons.

First, number of failed banks in certain countries has increased, which simultaneously increased the demand of financial assistance to damaged balances. As a remarkable illustration could serve the gradually increasing number of failed banks in the U.S.A., which rose from 25 in 2008 to 140 in 2009 and 127 by 1 October, 2010. As a second cause we name insufficient deposit coverage. The FDIC (Federal Deposit Insurance Company) would report a rather small reserve ratio (the ratio between funds of the insurance company and the total of deposits insured), declining over the recent few years as follows: 1.22% in 31 December 2007, dropping to 0.36% by the end of 2008, and reaching even the negative -0.39% by the end of 2009. Comprehensive loss of the FDIC became dramatic in 2008 reaching $35.1 billion and did not stop sustainably, remaining still at an even higher level of $38.1 billion in 2009. Reserve ratio dynamics are also negative. The State deposit insurance company of Lithuania "Deposit and Investment Insurance" reported its current assets figure 404.6 million litas as of the end of 2009. It yields a much better deposit ratio 1.16% as of the end of 2009 than the one of the FDIC. Nevertheless, there are other observations. The financial current state of Lithuania, with its considerably downgraded ratings from A2 to Baa1 (on 28 September, 2009), pre-determines a lower probability of fund influx from the State in case of bank failure. If no such influx occurs, the accumulated current assets of the Deposit and Investment Insurance Company of mentioned 404.6 million litas would be most likely a difficult challenge to cover losses of even a single local bank as the amount of total deposits of even the smallest Lithuanian commercial bank is the above-mentioned sum. So the local deposit insurance scheme does not seem to be of an unshakable reliability.

In addition, there might be a consideration of the insurance maximum constraint. From some larger deposit perspective the amount of coverage may not be sufficient. Currently in the U.S.A. it has been set to USD 250 000 until the end of 31 December 2013; on 1 January, 2014 the standard insurance amount will return to its standard amount USD 100 000 per depositor (FDIC 2010) while in Lithuania it has been set to be EUR 100 000 equivalent (Indėlių ir investicijų draudimas 2010). For larger corporate depositors operating with large amounts, it is insufficient to rely solely on the local deposit insurance scheme without paying interest in the financial state of the commercial bank, where funds are being held.

Another aspect proving necessity of evaluation of stability and soundness of commercial banks is currency exchange risk. Lithuanian Deposit and Investment Insurance Company provides insurance amounts with the maximum expressed in equivalent of EUR 100 000, while disbursement currency of sums eligible under the insurance scheme is stipulated to be in the local currency the litas thus adding foreign exchange risk for a depositor who holds deposits in foreign currencies.

Such facts make investigation of financial state of commercial banks important or even vital for depositors. Current bank rating industry products do not provide sufficient answers due to the following reasons. First, they are designed for a different purpose of serving international investors. Second, rating agencies are concentrated in investigation of the long-term perspective of a bank while deposits are mostly being short-term. Third, anticipation function and noticing clients service has

proved to be inefficient during the eve of the current crisis. Fourth, rating agencies are concentrated on the qualitative analysis while most probably adding subjectivity to resulting ratings. Fifth, usually only a sole expert is assigned to evaluate a bank thus also adding subjectivity. Sixth, weights of evaluation criteria are also determined by 1-2 experts. Seventh, rating agencies are often known to maintain informal relationship with management evaluated bank. Eighth, an oligopoly of a few rating agencies has been established. Ninth, rating agencies are paid by banks for providing their ratings. Nevertheless, opinions of rating agencies are ought not to be ignored even if there are discrepancies between purposes and goals of their ratings and the ones of depositor's. There are the following rating agencies available in the market, most of which span a long history. Standard and Poor's Rating Services has launched their business of evaluation in 1860; Moody's Investors Service Inc. in 1909. Later other firms followed: Fitch Ratings Ltd., established in 1913; A.M. Best Company; DBRS Ltd. (Dominion Bond Rating Service); Japan Credit Rating Agency, Ltd.; Rating and Investment Information, Inc.; CBRS (Canadian Bond Rating Service); Duff (Duff and Phelps Credit Rating Service); JBRI (Japanese Bond Rating Institute); NIS (Nippon Investor Service); Thompson Bank Watch (absorbed by Fitch Ratings Ltd. in 2000), etc. The seven first rating agencies in the list above have been registered with the US Securities and Exchange Commission as nationally recognized statistical rating organizations ("NRSRO") in 2007.

There are other types of ratings of commercial banks provided by financial magazines as, for example, Top 1000 World Banks list annually published by the magazine "The Banker." Awards named like "The Bank of the Year" are continuously being granted by Euromoney, "The Banker", "Global Finance", "World Finance" etc. although such ratings can only produce an increment of sympathy of customers and are unlikely to serve as a base for making financial decisions.

In the paper we attempt to provide a framework of quantitative evaluation of stability and soundness of commercial banks, free from the above-mentioned shortcomings being made by rating agencies. The methodology of evaluation comprises several stages and is ending up with employment of several multi-criteria methods. A few initial stages of the evaluation farmework are described: Criteria Layout, Allocation of Weights, Concordance of Expert Opinions on Criteria and Weights, Collection of Financial Data. Decision of choosing multi-criteria methods for the evaluation of soundness and stability of commercial banks is explained.

2. Problems Intrinsic to Evaluation of Stability and Soundness of Commercial Banks

Having outlined the discrepancies between the purposes of ratings provided by major rating agencies, it becomes clear that a quantitative reliable methodology for evaluation of stability and soundness of commercial banks specially designed for depositors is needed. Such a statement has more arguments. First, most of depositors have short-term deposits. As of 30 April, 2010 88.4% of deposits made by house-

holds are of less than one year term. This sets the spam of the goal of the research to the short-term period unlike the goal of major rating agencies, which designed their rating products for international investors. We recall that rating methodologies of major rating agencies are designed for the long-term purpose (Moody's Investors Service Inc. 2010). Second, such a methodology must be quantitative in order to override subjectivity prevailing in the rating business. Third, the methodology must comprise a great deal of conflicting aspects having influence to the aspect of stability and soundness of commercial banks. In fact, financial statements of commercial banks are complicated, nevertheless revealing a plenitude of aspects of their complicated internal business structure and intertwined internal and external cash flows. The latter point foreordain that in spite of the fact that financial statements of commercial banks are well accessible and are quite transparent, data that is contained in the statements is far from being understandable for depositors. Fourth, international rating agencies a priori distinguish stability and soundness of commercial banks by the country of registration by setting country ceilings. For example, Moody's Investors Service Inc. sets foreign currency ceilings on bank deposits, which cannot exceed government bond rating (Cailleteau *et al.* 2008) which is currently set to Baa1 for Lithuania starting from 28 September, 2009. It well reveals the fact that the ratings of the agency are not designed for the purpose of the local market of Lithuania. Thus, ratings of even well-performing banks with good financial state will be limited by country ceiling (Podviezko, Ginevičius 2010).

Even though major rating agencies extensively discuss long lists of questions, present questionnaires to management of an evaluated bank comprising such questions as market environment and planning, ownership, audit/control by national banking supervisory auditory and accounts, corporate governance, performance/earnings, risk management, lending, contingent risks, credit derivatives, securitisation, market risk, operational risk, funding and liquidity, capital, loan loss and risk reserves (Le Bras, Andrews 2004), rating of the rating agencies will be based on the opinion of one or two experts thus inducing a high degree of subjectivity. The subjectivity could be probably be tailed off by employing a larger number of experts, although simultaneously inducing costs of rating.

The methodology based on multi-criteria methods makes it possible to outline a uniform framework for evaluation of all banks present in the market simultaneously. Such a methodology is being used in evaluation of banks in many other aspects (Ginevčius, Podvezko 2008; Zavadskas *et al.* 2004). Several experts are invited to the evaluation only at the initial stage of generation of criteria and their weights, thus setting the same uniform conditions of evaluation for all evaluated banks. The experts work at setting the uniform framework, which is different to the practice of designating a different expert to a different bank thus reducing subjectivity. The experts are selecting criteria among the vast number of indicative ratios of bank performance in terms of stability and soundness, allocating weights of the criteria and revisiting the stages if a low level of concordance is determined.

3. A Framework of Evaluation of Stability and Soundness of Commercial Banks

Every evaluation of complicated social-economical processes by quantitative multi-criteria methods implies a few stages. The initial compulsory stage comprises development of a set of criteria for such evaluation. Available criteria related to the subject of the research are obtained and listed thus making a base for the further selection of the most important criteria. First major stage commences with thorough examination of the scientific literature, related literature provided by rating agencies as rating methodologies, and market analysis. The scientific literature consists of scientific papers related to bank stability and soundness. Major rating agencies listed in the previous chapter currently disclose their up-dated rating methodologies and principles, from which a good insight of the current state of bank evaluation processes offered in the market is attained. Market analysis implies examination of eligible banks in the market as well as related insurance schemes available in the market usually created by the state.

To stress the importance of the initial stage, we mention that the choice of criteria directly affects the result of evaluation. Therefore, this stage requires additional attention requesting opinions of the best experts in the field available and few iterations in case if opinions of experts disagree to a high degree. Also, at this stage minimising criteria are transformed by one of a few available methods in order to have solely maximising criteria.

The experts not only choose the mostly descriptive criteria in terms of stability and soundness of commercial banks, but also allocate weights of importance to each of the criteria. All the weights allocated by each expert must make 100% by summing them up (at the second stage) (Ginevičius 2006, 2008).

Weights could be allocated by using various schemes. At the beginning it is prudent to offer to make an outranking of all already laid out criteria by every expert. Experts assign the number one rank to the most important criterion, number two to the less important one and so on, until the least important criterion is assigned by its weight. Such an outranking could already form weights of criteria or it makes the following step of choosing weights easier for every expert. Depending on the scope of the investigation, some easier methods or more sophisticated ones may be chosen to follow after the initial step of criteria outranking: the method of pairwise comparison (Завадскас 1987) or Analytic Hierarchy Process (Saaty 1980) The easiest and most clear method of allocating weights though is direct allocation, when experts are expected to allocate weights to every criterion by their importance, as they believe, so that the total sum would make up one or 100%. Concordance of the data of all experts collected may be checked by using the concordance theory suggested by M. Kendall (1955).

Bank business is complicated. It comprises different separate activities, intertwined between each other by cash flows and, of course, each having impact on bank stability, and the level of inconsistency between opinions of experts could also be high as experts are prone to subjectivity somewhat. So, at the third stage their opinions, which are expressed in sets of allocated weights and chosen criteria are com-

pared among themselves and their statistical compatibility is derived from data obtained from the experts. Such compatibility is expressed by Kendall's co-efficient of concordance, which shows the level of similarity of perception of criteria by experts (Podvezko 2007). In case their opinions are contradicting, Kendall's co-efficient becomes close to nil. Such a case, quite frequent, requires additional revisiting both initial stages until Kendall's co-efficient becomes sufficient, thus indicating acceptable level of concordance of opinions of experts.

At the fourth stage financial data is taken from financial statements of commercial banks thus producing necessary ratios for the evaluation. It could be both annual and quarterly reports. In case any special criteria are used for which financial data are not available, experts can provide their estimations. Of course, then such criteria are prone to some degree of subjectivity. Calculation of Kendall's co-efficient in this case shows at least if opinions of experts are in concordance with each other.

The fifth stage implies choosing a multi-criteria evaluation method or several such methods and application of the methods using the set of criteria obtained at the stage one, weights obtained at the stage two and data obtained at the stage four. In case more complicated methods are chosen, like the PROMETHEE, choice of preference functions must be made by experts (at the stage six) (Podvezko, Podviezko 2009; Podvezko, Podviezko 2010a,b).

As there is no perfect method, choice depends on the knowledge of particularities of the method. Moreover, in case several methods are chosen, they may well produce different results of outranking of evaluated banks. Therefore, an additional seventh stage is required, when outranking results made by different methods are evaluated and conclusions are made. This step requires a good knowledge of each method. In case differences in outranking results by different methods are observable, this stage becomes compulsory.

In general, quantitative evaluation of stability and soundness of commercial banks is made in accordance with the following scheme.

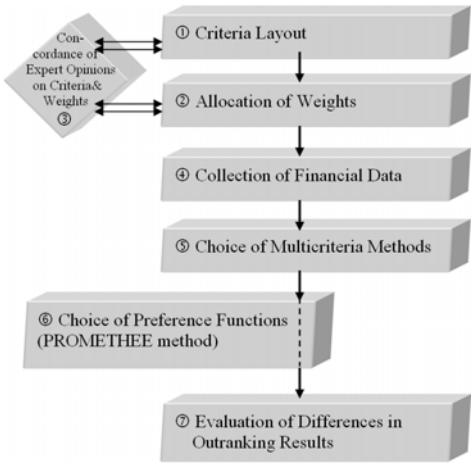


Fig. 1. A Framework of Quantitative Evaluation

4. Choice of Criteria – The Initial Step of the Framework

The task of quantitative analysis of financial state of a bank is always ought to start with choosing criteria of the evaluation. Criteria must comprise the essence of evaluation and should not miss valuable characteristics of the object evaluated. In order to obtain unbiased results, a set of criteria must not be overwhelming and criteria must not correlate between themselves. We found it the most appropriate to use the approved and extensively used so-called CAMELS framework, which sets and outlines categories of bank stability and soundness. The set of categories characterising stability and soundness of banks based on the CAMELS rating frame was chosen. It is extensively used by regulators of banking industry in the U.S.A. namely the FDIC, the Federal Reserve and the OCC (Lopez 1999; Podviezko, Ginevičius 2010) and by major rating agencies. This frame has served as a base outlining basic categories of criteria, but not the criteria themselves. Category description is incorporated in the CAMELS acronym representing six conditions of stable and sound bank performance, as follows.

'C' Capital adequacy.

'A' Asset quality is the ratio of non-performing and delinquent loans to total loans.

'M' Management quality.

'E' Earnings as ratios of earnings to risk-weighted assets.

'L' Liquidity.

'S' Sensitivity to market risk reflects the degree to which changes in interest rates, foreign exchange rates, commodity prices, or equity prices can adversely affect a financial institution's earnings or economic capital.

Unfortunately, the CAMELS methodology and exam ratings of banks are not publicly disclosed as opposed to methodologies of rating agencies, most of which explicitly describe both quantitative charts and qualitative analysis framework (Curry *et al.* 2007). For example, a methodology created by Fitch Ratings Ltd. (Lee *et al.* 2009) contains a plentiful of criteria. Capital item is represented by 11 criteria: Core Capital/Regulatory Weighted Risks; Fitch Eligible Capital/Regulatory Weighted Risks; Tangible Common Equity/Tangible Assets; Tangible Common Equity/Total Business Volume; Tier 1 Regulatory Capital Ratio; Total Regulatory Capital Ratio; Fitch Eligible Capital/Tier 1 Regulatory Capital; Equity/Total Assets; Cash Dividends Paid and Declared/Net Income; Cash Dividend Paid and Declared/Fitch Comprehensive Income; Net Income - Cash Dividends/Total Equity. Assets item is represented by 8 criteria: Growth of Total Assets; Growth of Gross Loans; Impaired Loans(NPLs)/Gross Loans; Reserves for Impaired Loans/Impaired Loans; Impaired Loans Less Reserves for Impaired Loans/Equity; Loan Impairment Charges/Average Gross Loans; Net Chargeoffs/Average Gross Loans; Impaired Loans + Foreclosed Assets/Gross Loans + Foreclosed Assets. Earnings item is represented by 8 'Other Operating Profitability Ratios': Non-Interest Income/Gross Revenues; Non-Interest Expense/Gross Revenues; Non-Interest Expense/Average Assets; Pre-Impairment Operating Profit/Average Equity; Pre-Impairment Operating Profit/Average Total

Assets; Loans and Securities Impairment Charges/Pre-Impairment Operating Profit; Operating Profit/Average Equity Operating Profit/Average Total Assets; Taxes/Pretax Profit, and by 5 'Other Profitability Ratios': Net Income/Average Total Equity; Net Income/Average Total Assets; Fitch Comprehensive Income/Average Total Equity; Fitch Comprehensive Income/Average Total Assets; Net Income/Average Total Assets plus Average Managed Assets. Fitch Ratings Ltd. also uses other categories, which intersect with mentioned ones. They are as follows: Interest Ratios: Interest Income on Loans/Average Gross Loans; Interest Expense on Customer Deposits/Average Customer Deposits; Interest Income/Average Earning Assets; Interest Expense/Average Interest-Bearing Liabilities; Net Interest Income/Average Earning Assets; Net Interest Income Less Loan Impairment Charges/Average Earning Assets. We note that of course, all of the criteria altogether cannot be used in our research. Only essential non-correlated criteria must be selected and serve to our purposes.

Framework outlined by Moody's Investors Service Inc. is much more suitable to our needs and some criteria of the Rating Agency could be also used in the research. The scorecard was adopted from Fanger (2007) by omitting the qualitative part and by adjusting overall weights into concluding weights and is presented in Table 1 in the adopted format as follows.

Table 1. Bank Financial Strength Ratings Scorecard Weights

	Factor	Category Weight	Sub- Factor	Sub-Factor Weight	Concluding Weight
Financial Factors	Profitability	15.75 %	PPP % Avg RWA	50 %	7.875 %
			Net Income % Avg RWA	50 %	7.875 %
	Liquidity	15.75 %	(Market funds – Liquid Assets) % Total Assets	44 %	6,93 %
			Liquidity Management	56 %	8.82 %
	Capital Adequacy	15.75 %	Tier 1 ratio (%)	50 %	7.875 %
			Tangible Common Equity % RWA	50 %	7.875 %
	Efficiency	7 %	Cost/income ratio	100 %	7.00%
	Asset Quality	15.75 %	Problem Loans % Gross Loans	50 %	7.875 %
			Problem Loans % (Equity + LLR)	50 %	7.875 %
	Lowest Score	30 %	Assigned to lowest combined financial factor score	100 %	30.00 %
PPP RWA LLR	Pre-Provision Profits Average Risk-Weighted Assets Loan Loss Reserves				

Adopted from Fanger (2007).

The criteria outlined in Table 1 in Capital, Profitability and Efficiency categories (referred to as factors in the Table) were used in our research as well fitting to our purposes. The Assets needed more adjustments. The category comprises two criteria.

The first one represents the ratio of delinquent loans to total loans. Financial reports of Lithuanian commercial banks reveal the item of delinquent loans. The loans are sub-divided into groups by the term of the delay, which is different between the banks. Optimal term of delinquency of 60 days or more was chosen. This term is determined from the list of terms given in financial statements of Lithuanian commercial banks. It well equalizes the following terms of delinquency presented in Table 2 with the only exception of the data reported by AB DnB NORD bank, for which we used the term of delinquency of 40 days or more (incorporating it to the same criterion of delinquent loans of the term 60 days or more).

Table 2. Delinquency Terms Used by Lithuanian Commercial Banks in Annual Reports, days

AB DnB NORD	< 3	4-40		41-90		> 90
UAB Medicinos Bankas		< 30	31-60		61-90	> 90
AB Parex Bankas		< 30	31-60		61-90	> 90
AB SEB Bankas	< 7	8-30	31-60		> 60	
AB Šiaulių Bankas		< 30	31-60		61-90	> 90
AB bankas SNORAS		< 30	31-60		> 60	
AB Swedbank		< 30	31-60		61-90	> 90
AB Ūkio Bankas		< 30	31-60		> 60	

The term of delinquency of 60 days or more is believed to be sufficiently indicative in terms of disclosing impaired loans as it is defined under IAS 39 paragraph 59 for banks reporting under IFRS (IASB 2009). The second criterion under the Assets category was also chosen to be accessible from financial statements of Lithuanian commercial banks, namely credit loss expenses and impairment losses ratio to total loans (without allowances for impairment of interest-earning assets).

In Liquidity category the liquidity ratio imposed by the Bank of Lithuania was chosen.

Finally, we come up to the list of criteria used for evaluation of stability and soundness of Lithuanian commercial banks, comprising the following categories of the CAMELS framework: Capital, Assets, Earnings and Liquidity. Management criterion was excluded from the list as being qualitative, while the Sensitivity criterion yet needs to be added. Chosen evaluation criteria are listed in the following table.

Table 3. Evaluation Criteria and their Categories

<table>
<tr><td colspan="8">Categories</td></tr>
<tr><td colspan="2">Capital</td><td colspan="2">Assets</td><td colspan="2">Earnings</td><td colspan="2">Liquidity</td></tr>
<tr><td>1.</td><td>Tier 1 Ratio</td><td>3.</td><td rowspan="2">Delinquent Loan Ratio</td><td>5.</td><td>Cost/Income Ratio</td><td rowspan="4">8.</td><td rowspan="4">Liquidity Regulatory Ratio imposed by the Bank of Lithuania</td></tr>
<tr><td rowspan="3">2.</td><td rowspan="3">Tangible Common Equity Ratio</td><td rowspan="3">4.</td><td>6.</td><td rowspan="2">Pre-Provision Profit Ratio</td></tr>
<tr><td rowspan="2">Impairment Losses Ratio</td></tr>
<tr><td>7.</td><td>Net Income Ratio</td></tr>
</table>

5. Values of criteria representing performance of Lithuanian commercial banks. Weights of the criteria.

In the previous chapter major criteria of stability and soundness of commercial banks were described, as well as process of selection of criteria resulting in eight core criteria of four categories stemming from the CAMELS framework. Choice of criteria is probably the most difficult task, as a few criteria are ought to selected from a vast number. Bank business is complicated and thus comprises different separate activities, intertwined between each other by cash flows and, of course, each has impact on bank stability and soundness. After the selection has been made, all the criteria must be transformed to maximising ones, since many of the quantitative evaluation methods we hereby use can operate solely with the maximising criteria. Each criterion is either maximising or minimising, i.e. the best value of the maximising criterion is achieved at its maximum value. Conversely, the best value of the minimising criterion is achieved at its minimum value. There are three minimising criteria among the eight of our choice namely: Delinquent Loan Ratio, Impairment Losses Ratio, Cost/Income Ratio. A minimising criterion can be inversed to the maximising one by using few available methods. For example, values of minimising criteria can be transformed to the maximising ones by applying the following formula:

$$\overline{r}_{ij} = \frac{\min\limits_{j} r_{ij}}{r_{ij}}$$

where r_{ij} is a value of the *i*-th criterion for the *j*-th bank.

At the second stage, weights to each criterion must be allocated, such that the sum of weights must be one, or in other terms 100 % (Ginevičius 2006, 2008). The most important ratios, in our opinion, are the ones related to income of a bank. In other words, the ability of a bank to generate cash is of prime importance as a positive considerable income can outweigh possible losses thus leaving the bank at the stable state. Such criteria were assigned with twice higher weight than the remaining ones. Thus, the table 4 of weights became as follows:

Table 4. Weights of Evaluation Criteria

	1	2	3	4	5	6	7	8
Criterion	Tier 1/ RWA	Tangible Common Equity/ RWA	Delinquent Loans/Total Loans	Loan Value Decrease/ Total Loans	Cost/Income Ratio	Pre-Provision Profit/RWA	Net Icome/RWA	Liquidity Regulatory Ratio
Minimising or Maximising	Maximising	Maximising	Minimising	Minimising	Minimising	Maximising	Maximising	Maximising
Weight	10%	10%	10%	10%	20%	20%	10%	10%

Notes: RWA stands for Risk Weighted Assets

Following the scheme outlined in Fig. 1, the next step is collection of statistical data. Data representing stability and soundness of Lithuanian commercial banks as of 31 December 2007 and 31 December 2008 were obtained. The data is outlined in the following table 5.

Table 5. Comparative statistics of performance of Lithuanian commercial banks LTL thousand

	Tier 1 Capital	Tangible Assets	Risk-Weighted Assets	Pre-Provision Profit	Net Profit	Total Income
AB DnB NORD 2007	611,080	860,774	8,796,444	150,639	107,884	595,769
UAB Medicinos bankas 2007	45,092	50,198	640,586	9,750	5,560	51,871
AB Parex bankas 2007	190,393	172,332	1,610,365	4,181	40	92,458
AB SEB bank 2007	1,406,488	1,754,532	20,053,371	606,048	496,094	1,529,057
AB bankas SNORAS 2007	393,640	308,176	3,449,454	73,878	71,723	336,440
AB Swedbank 2007	1,009,196	1,433,421	13,405,856	406,645	314,314	1,162,599
AB Šiaulių bankas 2007	240,706	234,534	1,593,743	34,309	27,248	129,446
AB Ūkio bankas 2007	312,898	357,021	3,401,340	109,002	82,724	353,918

	Tier 1 Capital	Tangible Assets	Risk Weighted Assets	Pre-Provision Profit	Net Profit	Total Income
AB DnB NORD 2008	924,280	1,301,349	11,318,682	178,978	70,737	854,637
UAB Medicinos bankas 2008	83,872	105,799	693,305	15,574	5,990	76,511
AB Parex bankas 2008	165,488	155,076	1,407,456	-770	-23,527	138,950
AB SEB bank 2008	2,166,169	2,055,895	19,432,850	545,917	347,728	1,765,127
AB bankas SNORAS 2008	457,072	323,283	4,269,556	65,682	21,956	461,198
AB Swedbank 2008	1,632,945	1,933,257	13,054,019	493,019	381,065	1,519,523
AB Šiaulių bankas 2008	264,576	257,560	1,748,515	26,878	17,525	159,679
AB Ūkio bankas 2008	394,607	355,967	3,665,310	92,899	57,383	389,469

	Non-Interest Expenses	Liquidity Ratio	Loan Value Decrease	Delinquent Loans > 60 days	Total Loans Without Reserves
AB DnB NORD 2007	201,441	36.24	19,676	27,696	8,869,160
UAB Medicinos bankas 2007	26,807	45.51	2,730	8,131	454,323
AB Parex bankas 2007	50,465	32.79	3,881	854	1,266,173
AB SEB bank 2007	388,964	42.78	161,818	77,298	17,750,245
AB bankas SNORAS 2007	96,173	50.63	-11,476	42,389	2,648,726
AB Swedbank 2007	434,910	42.2	19,692	83,191	13,806,763
AB Šiaulių bankas 2007	43,249	44.03	5,108	8,198	1,540,637
AB Ūkio bankas 2007	160,860	49.43	81,340	8,543	1,875,267

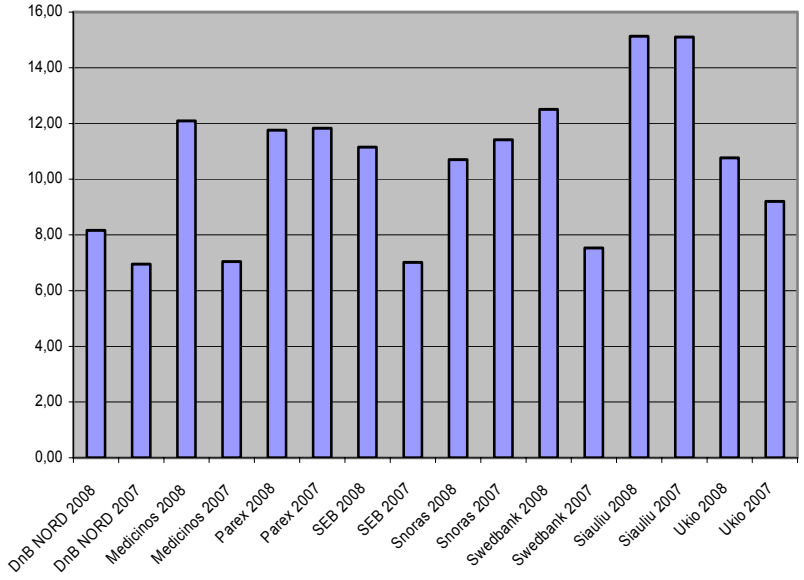
	Non-Interest Expenses	Liquidity Ratio	Loan Value Decrease	Delinquent Loans > 60 days	Total Loans Without Reserves
AB DnB NORD 2008	305,562	37.47	65,017	138,292	11,260,940
UAB Medicinos bankas 2008	36,831	59.43	9,016	62,608	488,851
AB Parex bankas 2008	84,629	32.93	17,766	3,086	1,386,408
AB SEB bank 2008	538,536	38.99	311,830	295,351	20,287,969
AB bankas SNORAS 2008	182,148	36.37	38,338	170,670	3,425,752
AB Swedbank 2008	502,540	39.76	48,463	219,067	15,085,347
AB Šiaulių bankas 2008	48,826	38.75	7,748	14,206	1,674,541
AB Ūkio bankas 2008	186,564	42.45	56,800	25,767	2,593,844

Statistical data is not yet a convenient tool for comparative analysis of stability and soundness of commercial banks. First, it is given in absolute values, without comparison, say to the size of the bank. Second, its presentation in a non-graphical format precludes from making an immediate analysis. The data is first transformed to values of indicative criteria. Such data in Fig. 2 is expressed in a convenient graphic format by every criterion of the eight chosen. Most of the criteria are represented by ratios given in formulae of such criteria. Even presented in this convenient format data does not provide clear answers on stability and soundness of commercial banks. This means that more sophisticated multi-criteria methods are required for making such evaluations. Such methods embrace criteria, their values, and weights allocated by experts and produce fast and reliable results.

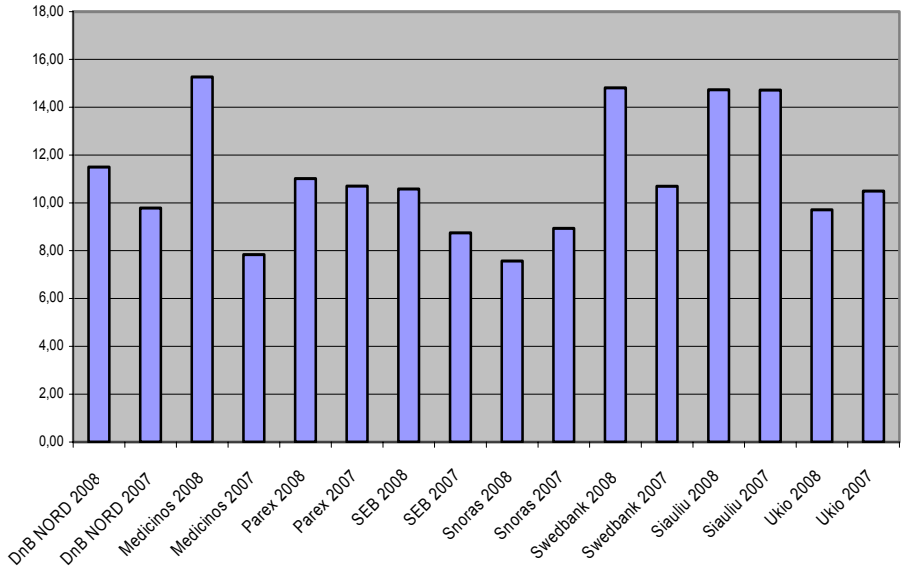
6. Conclusions

Quantitative evaluation of commercial banks is still remaining an important task. Depositors are dependent on stability of banks since deposit insurance does not eliminate all related contingent risks. Evaluation of banks carried out by rating agencies is susceptible to subjectivity of experts and is therefore not sufficiently reliable. Consequently, in the paper a uniform framework of evaluation based on financial data is outlined. It comprises a few stages. The framework is intended to improve reliability of the evaluation, increase transparency and provide swift results for the public. Banking business is complicated and so is the evaluation, which must comprise different aspects of bank activity. The framework at its initial stage suggests making a criteria layout. In the paper we made a selection of criteria from vast number possible, fulfilling both requirements: first, to comprise major aspects of bank stability and second, the constraint of a limited number of different criteria. At the stage of selection of criteria few core categories were outlined and then each category was filled with the most appropriate criteria. Values of criteria were derived from statistical data. The resulting values were presented in a convenient visible graphic format, although clear evaluation results could never be attained or observed by such graphical presentation. Conversely, a framework suggested in the paper, comprising several quantitative multi-criteria methods is intended to make fast and reliable evaluation of soundness and stability of commercial banks. In the paper a framework of evaluation was drawn up, a scheme showing major stages of the evaluation was outlined and description of the stages was given thus formalising the evaluation process.

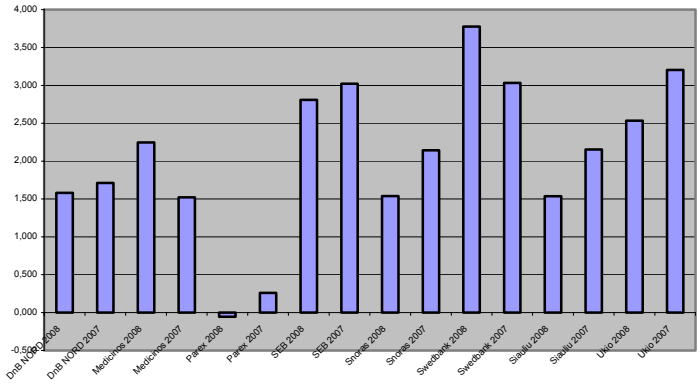
Fig. 2. Comparative Values of Criteria of Stability and Soundness of Lithuanian Commercial Banks.



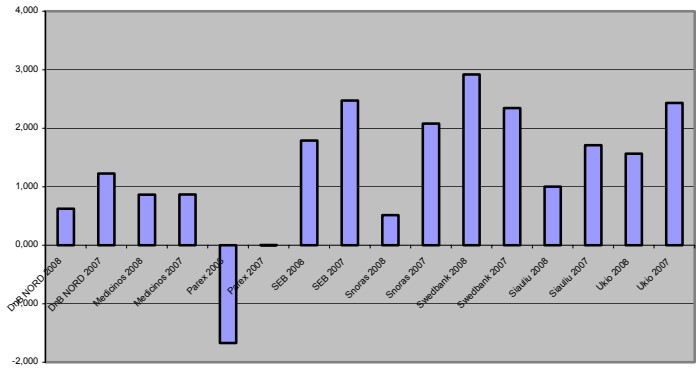
Criterion1. Tier 1 Ratio.



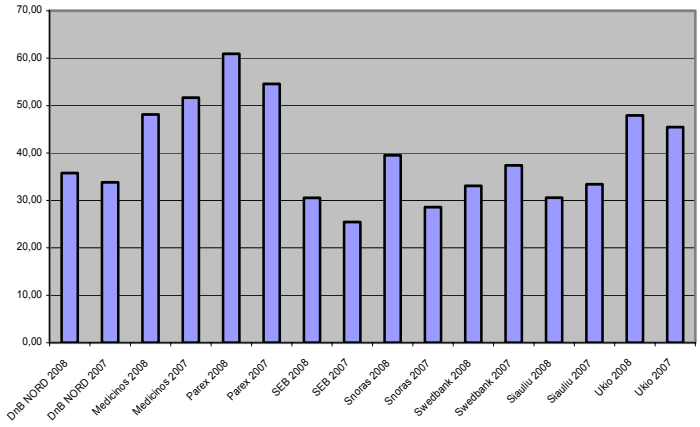
Criterion 2. Tangible Common Equity Ratio.



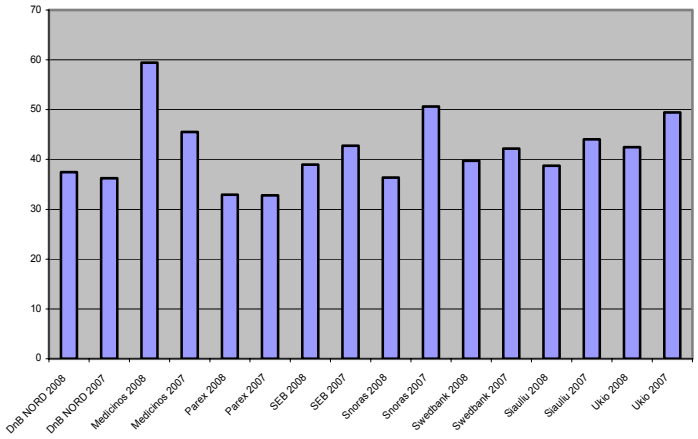
Criterion 3. Delinquent Loan Ratio.



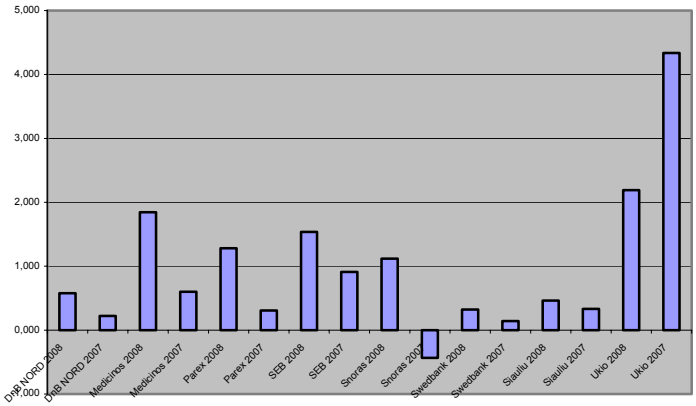
Criterion 4. Impairment Losses Ratio.



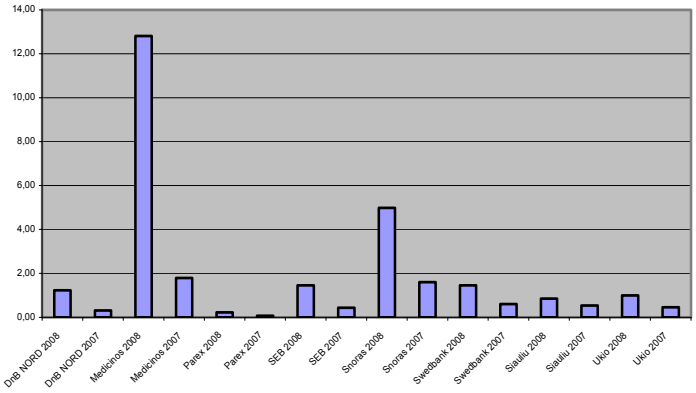
Criterion 5. Cost/Income Ratio.



Criterion 6. Pre-Provision Profit Ratio.



Criterion 7. Net Income Ratio.



Criterion 8. Liquidity Regulatory Ratio.

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KOMERCINIŲ BANKŲ VERTINIMAS

Romualdas GINEVIČIUS, Askoldas PODVIEZKO

Santrauka. Dabartinės ekonomikos krizės metu padidėjo komercinių bankų bankroto tikimybė. Ilgėja pastaruoju metu bankrutavusių komercinių bankų sąrašai. Straipsnyje parodyta, jog indėlių draudimo įstaigų draudimo polisai nevisiškai apsaugo indėlininkus nuo galimų indėlių praradimų. Minėtos aplinkybės patvirtina komercinių bankų patikimumo ir stabilumo vertinimo reikšmę. Komercinių bankų veikla įvairialypė, todėl vertinimas turi apimti daug įvairių šios veiklos aspektų. Pasiūlyta komercinių bankų vertinimo metodika ir schema, taip pat pateikti Lietuvos komercinių bankų veiklos vertinimo rezultatai.

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