

TOTHEQUESTIONOFECONOMICCAPITALOFCOMMERCIALBANK

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Key words: Bank capital, bank regulative capital, bank economic capital, capital formation sources, Basel Agreement II, capital sources stability.

The present paper reveals the approaches to determination of the bank capital essence and the conception of regulative and economic capital with due account for the latest trends in bank regulation processes. The author gives a qualitative estimation of regulative and economic capital of the leading regional bank with due account for regional development peculiarities. He also proves the necessity to form the sources with due account for the ownership right and its irretrievability bearing in mind the accordance with the economic capital conception.

For the maintenance of the adequate capitalization of banks and strengthening of their competitive positions in financial markets the authentic estimation of the capital, directed at the observance of requirements and recommendations of Basel committee on bank supervision, is necessary. The national technique of the estimation, as well as the technique of Basel agreement I (the International rapprochement of measurement methods and standards of the capital) is based on the concept of the regulating capital directed for covering of unforeseen. Modern tendencies of bank regulation have caused the necessity of the change of standards of the estimation of sufficiency of the capital, and consequently, and the urgency of our research.

It is known that the regulating capital is calculated to agree with the specifications of the supervising bodies, and the banks subject to this estimation include commercial banks using it in formation of the reporting, given to the super-

vising body, and the Bank of Russia (the Instruction of the Central Bank of the Russian Federation from January, 16, 2004 № 110 " About obligatory specifications of banks "), estimating the activity of bank from the point of the observance of the established specifications.

On June, 26, 2004 Basel committee on bank supervision published the document "The International convergence of measurement of the capital and standards of the capital: new approaches "1 providing new rules of regulations (now referred to as Basel Agreement II). This new method consists of the following components: minimal requirements to the capital, supervising process and market discipline (fig. 1).

In the above mentioned technique, as well as in the current one (Basel Agreement I), the capital is referred to the risks arising in the banking activity, the changes concerning the calculation of the capital are not provided and the main difference is in the mechanism of risks calculation and the size of the operational risk:

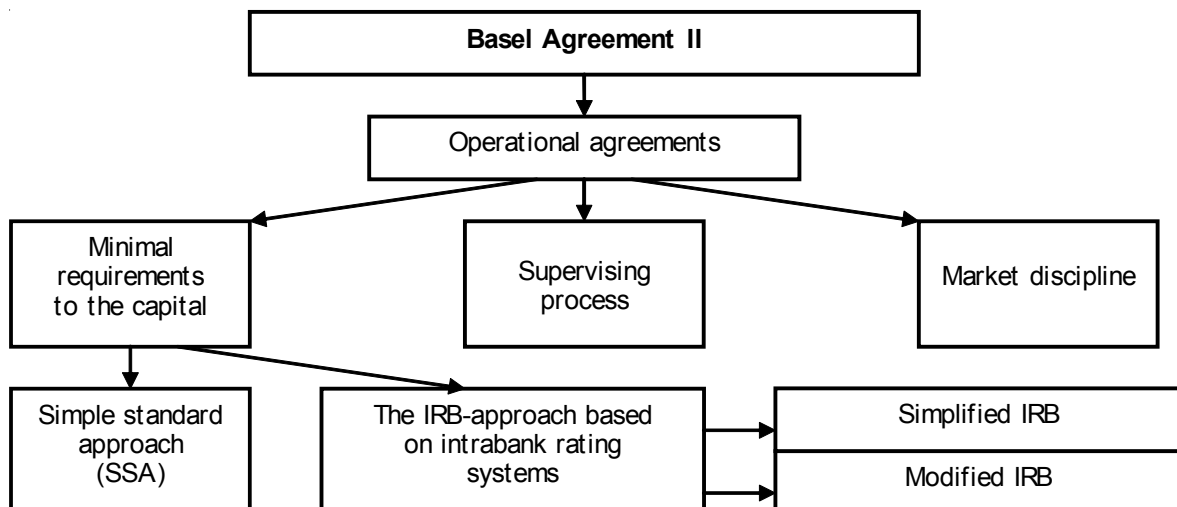


Fig. 1. Content of Basel Agreement II

* Victoriya V. Manuilenko, PhD in Economics, associate professor at North-Caucasus Humanity-Technical Institute, Stavropol.

$$\text{McDonough Factor} = K_m / K_{p.m} + 12,5 \\ (PP_m + OP),$$

OP - operational risk of bank; 12,5 (1/0,08) – the factor of quantitative connection between the calculation of the need for the capital on credit, market and operational risks. The parameter of the sufficiency of the capital should be more or equal to 8 %.

The minimal size of the capital for covering the credit risk is determined with the help of a standardized method and two versions of the internal method based on ratings. The standardized method is based on the external ratings replacing standard shares of risk under requirements to the governments, foreign banks, national and international corporations, and presupposes the change of the risk factors depending on a credit rating of the borrower established by the rating agency and recognized by the regulating authorities. In case of external ratings the groups of creditors receive standardized estimations of risk (0, 20, 50, 100, 150 %) depending on their financial soundness. The risks in the interbank market of credits can be estimated on a basis of the rating of credits by the government or on the basis of the own rating of the bank.

Basel Agreement II includes the use of the simplified variant of the standardized approach based on uniform estimations of the risk of the export credit agencies of the country. The comparison of the capital requirements of Basel Agreement I and the standardized approach allows to make the conclusion that the risk factor can rise: for national banks with a rating and under requirements within 1 year - up to 150 %; for banks without a rating and under requirements within 1 year - from 20 % to 100 %; under requirements to the Russian borrowers with a rating - up to 150 %, having remained unchanged for the enterprises without ratings and with the highest rating, possible for the Russian residents. For short-term credits of the Russian banks the risk rate will change from 20 up to 50 %, having remained constant for long-term credits.

The differentiation of crediting conditions is provided depending on various categories of borrowers. 50 % level at the estimation of risk of the contractor on derivative tools on the market is cancelled for the asserts beyond the balance, for example, for credits with repayment within 1 year the it equals zero; for the business sector with repayment within 1 year it equals 20 %, with repayment beyond one year the risk equals 50 %. For all other

obligations the existing method of the estimation with application of the conversion factor is accepted. The use of the technology of mitigation of the credit risk (hedging, guarantees, or other ones) is supposed.

The specified approach to regulation, thus, liquidates the club approach; the increased factor of risk up to 150 % is entered into the system of estimations; the risk rate attributed to the borrower within each category depends on the external estimation of liabilities by the authoritative credit agency.

As the important role in the new system is played by the specialized rating agencies their selection is stipulated in detail on the basis of the following criteria: objectivity and transparent application of the technique, independence from the political influences, trustworthiness of the rating agencies, transparency of estimations, etc.).

Subsequently the Committee stipulates the use of services of the national rating agencies. It is necessary to emphasize that unlike the requirements of Basel Agreement I the rating agencies protect the creditors on a wider basis during the estimation of the capitalization the risks structure, the level of profitableness, the future possibilities for the creation of the capital and compensation of losses with its help, and also the cost of separate elements of the capital are taken into account.

One of the leading international rating agencies Moody's Investors Service pays a great attention to the ability of the bank to create the capital from the received incomes. The Standard and Poor's uses a corrected ordinary joint-stock capital (a fixed capital - hybrid tools) and the total share capital in which the hybrid capital of the first order is clearly determined. And the Standard and Poor's takes into account the amount of the means with a given date of repayment up to 10 %, and papers for an unfixed period up to 25 % of the corrected total share capital.

The internal (IRB) method is applied only to the most advanced banks having complex systems of estimation and minimization of the credit risk. Such banks are recommended by the supervision authorities to use their own rating estimations of risk of the borrowers (in the first version it was a fundamental approach) and, in the long run, a quantitative estimation of the probability of the losses, determined by the banks on their own (in the second version it is an advanced method). In the result, the IRB method is based on the measurement of both unforeseen and expected losses.

The calculation of the capital for covering market risk is not changed.

The operational risk is characterized as a risk of the loss connected with inadequacy or inaccuracy of the internal processes, actions of employees and systems, or with the results of the external events, including legal ones. For the calculation of the requirements to the operational risk of the capital the supervising authorities can choose one of the following approaches: basic, standardized or advanced.

Basel Agreement II supplements a supervising component of the estimation of the sufficiency of the capital and assumes the observance of four main principles of the supervising process.

1. Banks should have procedures of the estimation of the general sufficiency of the capital concerning the character of the risk and the strategy of maintenance. This determines the necessity of the supervision by the board of directors and the top management of the bank, the necessity of the grounded estimation of the capital and an all-round estimation of risks, the necessity of the creation of systems of monitoring and reporting, and check of systems of the internal control.

2. The supervising authorities should check and estimate banks' defining of the sufficiency of the internal capital and their strategy in this area, and also their ability to trace and provide observance of specifications of the capital, and to apply supervising actions if necessary.

3. The bank supervision authorities expect that the banks will support a level of the capital above the minimal regulating specifications, and they should

have an opportunity to demand from the banks to provide a reserve stock of the capital.

It is necessary to highlight that the necessity of keeping the capital at a level higher than the minimal is caused by the competition.

4. The bank supervision authorities should carry out a preventive intervention to prevent the reduction of the capital below a minimum level necessary for risks maintenance in the given bank, and take urgent measures to correct the situation if the size of the capital does not prove to be true or is not restored at a sufficient level².

Unlike the 6-th principle of the effective bank supervision concerning the estimation of the capital sufficiency, Basel Agreement II underlines the necessity of the expansions of the list of essential risks of certain banks which were not included in the first version, and increases the efficiency of the intrabank control systems, etc.

Market discipline, the third component of Basel Agreement II, is an innovative addition in the field of supervision of the capital. The increase of the importance of the discipline will allow the interested parties to receive more complete information on the sufficiency of the capital and the used estimation of risks. However, various powers of national bodies of bank supervision for an establishment of requirements of information disclosing are supposed. Since the exchange of experience between professionals in banking³ is an important tool of market discipline and appropriate disclosing of the information, Basel Agreement II defines an economic estimation of the capital (fig. 2).

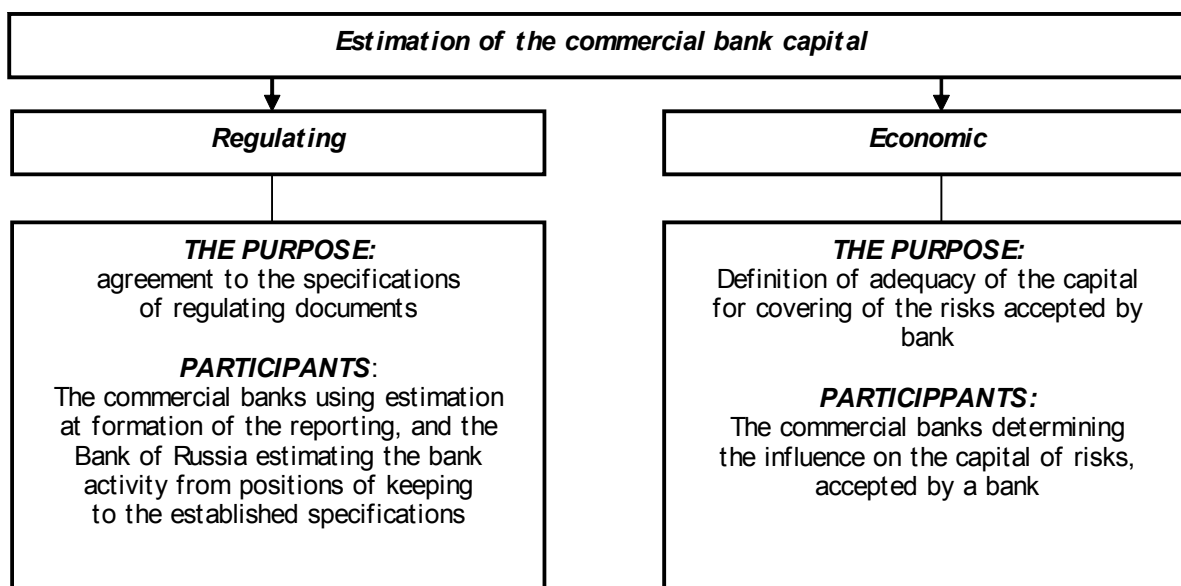


Fig. 2. Components of the estimation of the commercial bank capital

With the acceptance of Basel Agreement II the economic estimation is added to the regulating estimation of sufficiency of the capital. The economic capital is used with the purpose of definition of its adequacy for covering the risks accepted by a bank, and the calculation includes those items of the capital which serve a reserve in case of losses, caused by risks.

On September, 10, 2003 the committee on the financial markets and the credit organizations of Commercial and Industrial chamber created a working group “Basel II” for the realization of Basel Agreement II in Russia. This working group consists of the Association of the Russian banks and separate divisions of the Bank of Russia on credit, operational, information risks.

According to the research carried out by the association “Russia”, nowadays part of the recommendations of Basel Agreement II is applied by 27,8% of Moscow banks and 29,5 % of banks in Privolzhsky Federal District. The majority of banks in other regions, including Stavropol Region, have only a general idea of this document. But to conduct the adequate capitalization of banks and strengthen their competitive positions in the financial markets, the estimation of the sufficiency of the owned capital should take into account the requirements the recommendations accepted at the international level as well as the prospects of their change and development. This causes the necessity to adapt the technique applied by the Bank of Russia to the requirements of Basel Agreement II.

with the forward growth of the banking capital - from 8,9 million euro for 01.01.2006 up to 14,9 million euro for 01.01.2008 (tab. 1)

The structure of the capital is studied below.

The size and qualitative structure of the owned capital should promote the protection mechanism of the interests both the bank, and its creditors and shareholders as much as possible. The division of the capital on the principle of stability into the basic and additional allows identifying the most stable elements of the owned capital.

The fixed capital of the bank makes a constant part of its cost which can be directed on covering the real or potential losses. The size of the additional capital varies depending on the change of the bank actives cost and the market risks. During the analysis of the sources structure of the owned capital it is necessary to reveal the parities between the basic and additional capitals, paying attention to quantitative changes of their components in dynamics.

The calculations (tab. 2) lead to the conclusion that during the researched period the share of a fixed capital grew to 13,9 % and in 2007 and in 2008 it was prevailing. In the structure of the fixed capital the greatest densities is comprised by funds, and the share of the authorized capital decreased to 6,3%. It is known that the formation of the owned capital by means of funds is considered rather fast and economic way of its increase.

The structure of the additional capital is comprised by the profit, the subordinated cred-

Table 1

Development of the regulating capital of Joint Stock Company “Stavropolpromstroibank”

The period	Absolute size	
	thousand of roubles	million euro
01.01.2006	292 046	8,9
01.01.2007	464 282	13,3
01.01.2008	552 426	14,9

In regional banks the introduction of an economic estimation of the capital will be promoted, first of all, by an authentic estimation of the regulating capital⁴. The condition of the regional financial market, the underdevelopment of which is negatively reflected in structure of the capital, is also very important⁵.

Joint Stock Company “Stavropolpromstroibank” is a leading credit organization of region

it and an increase in value of the property at the reassessment. The largest part is made up by an increase in value of the property at the reassessment - 13,4 % for January, 1, 2008 that is 3,2% less the data for January, 1, 2006.

The growth of the additional capital due to an increase in the value of property at the reassessment should be considered negative as the reassessment is only a record in the accounts,

and has no positive result by itself. And as a result of the reassessment, the balance cost increases being a base of calculation of the tax to property and this fact negatively influences the financial results of bank.

It is necessary to emphasize that Russian banks overestimate the size of their owned capital, including there elements with a low degree of stability which contradicts the 6-th principle of the effective bank supervision in the field of an estimation of sufficiency of the capital (namely, an increase in value of the property at the reassessment).

The share of the profit increased for 0,7% which makes 42470 thousand roubles. As in the bank the owned capital is paid off by the capital actives, its size does not decrease for a difference between the sources of financing and investments in capital actives.

It is necessary to emphasize that the subordinated credit in the bank negatively influences its profitableness as there is a risk of profitableness loss. Besides, in the banks which give the subordinated credit this sum is extracted from the owned capital and the credit service expenses are put down to the net profit of the bank.

By releasing subordinated obligations the bank receives an opportunity to increase the capital base which is accompanied by the increase in a share of the long-term extra capital, and does not result in increase of the number of owners and in loss of the control over it by the working shareholders. Besides separate items of the hybrid capital give the bank additional opportunities for the formation of the authorized capital avoiding the established restrictions, especially in questions of the means acting to pay the shares.

Nowadays the release of subordinated obligations is impeded by the following factors:

1. Fixed percentage payments raising risk connected with the stability of the profit as it is considered that the increase of paid capitals promotes decrease of profitableness as they are more expensive to bank than usual short-term resources.

2. The absence of a constancy caused by the uncertainty of the possibility to renew the liabilities after the repayment is expired;

3. Including in calculation of the capital base only parts of the extra capital.

The subordinated credit, in our opinion, should be considered not as a component of the bank capital but as a long-term financial resource which

under no conditions can be considered as a base for entering into additional obligations by a bank or the property of the bank shareholders. This part of the bank resources can only be considered as burdened with obligations. It is possible to temporarily consider these resources not burdened with obligations. And the fixed part of the owned capital is formed according to the principle of irrevocability.

As a rule, in Russia such loans are carried out by shareholders (Joint Stock Company "Petrocommerz") to help banks with the problem of capital expansion. Besides it is necessary to note, that these methods refer to the extra capital from the point of view of international tax and commercial law.

Since the structure of the capital is exposed to the risk of instability the managers of the bank should strengthen the control over formation of owned capital, especially of its sound part.

The means directed on the increase of the capital, according to researches, should answer the principles of stability, soundness, subordination to the rights of creditors and absence of the fixed charges of incomes⁶.

If we accept that items which serve as a reserve for a covering of losses are included into the economic capital of the capital of bank, it is necessary to exclude an increase in value of property at reassessment and subordinated dept.

As G. Sinky fairly says "no reasonable creditor will consider reserve funds to cover bad debts of the potential borrower as a part of the capital of the firm and will consider a minor debt, (bonds with the low status, paid at bankruptcy in the second turn) equivalent to the share capital"⁷.

So, the basic difference of the economic capital from the regulating one that it is only determined to reveal its adequacy for covering of the risks accepted by a specific bank, and the calculation includes the items of the capital serving as a reserve for covering losses, from probable risks.

In modern conditions the sources of the economic capital should correspond the principles of the property right and irrevocability as their increase by means of subordinated credits and loans is negatively reflected in capital return, thus the absence of a constant source, caused by uncertainty of renewal after the approach of repayment term, does not allow to compensate unforeseen risks and losses. Owing to this the basic protective function of the capital is impeded.

**Comparison of the regulating and the economic capital of Joint Stock Company
"Stavropolpromstroibank" for 01.01.2008.**

Sources of the regulating capital	The sum, thousand roubles	Sources of the economic capital	The sum, thousand roubles
1. Sources of a fixed capital	353 441	1. Sources of a fixed capital:	353 441
2. The authorized capital: ordinary shares	38 800	2. The authorized capital: ordinary shares	38 800
3. The issue income	5390	3. The issue income	5390
4. Funds	309 251	4. Funds	309 251
5. Part of the profit of the current year		5. Part of the profit of the current year	
6. The means reducing the fixed capital: investments in the share	210	6. The means reducing the fixed capital: investments in the share	210
7. Total of the fixed capital	353 231	7. Total of the fixed capital	353 231
8. Sources of the additional capital	199 195	8. Sources of the additional capital	85 654
9. Increase in value of property due to reassessment	71 541	9. Profit of the current year	85 654
10. Profit of the current year	85 654	11. The means reducing the sum of the basic and additional capital	-
11. The subordinated credit	42 000	12. Total of the additional capital	85 654
12. The means reducing the sum of the basic and additional capital	-	13. The economic capital	438 885
13. Total of the additional capital	199 195		
14. Regulating the capital	552 426		

There is no doubt that the integration of the Russian bank system into the world community causes the necessity to approach national regulation to international as much as possible. Therefore each bank, following the concept of the economic capital, should independently determine the size and structure of its own capital, in line with the accepted strategy of development.

Thus, the strategy of bank in the field of formation of the capital should provide:

- ◆ capital growth;
- ◆ getting the highest credit rating (AAA) as the cost of financing is reduced but the profitability of operations grows;
- ◆ adequate dividend policy;
- ◆ issue of the long-term capital (subordinated bonds, preferential and simple shares);
- ◆ formation of loan ability by expansion of the capital base.

Thus, theoretical aspects of the economic capital of the bank are considered in view of requirements of the international standards and obligatory requirements to its sources such as

the irrevocability and the property rights are formulated.

¹ The international convergence of measurement of the capital and standards of the capital: new approaches / Basel committee on bank supervision. M., 2004.

² Ibid.

³ Ibid.

⁴ *Manuilenko, V.V., Maleeva, A.V.* Perfection of the technique of the estimation of capital sufficiency of the commercial bank: The monography. Stavropol, 2006. 210 p.

⁵ *Pleshkova, T.G.* Estimation of the condition of the capital of the enterprises of region // The bulletin of Samara State Economic University. Samara, 2007. №5 (31). P. 139-144.

⁶ See: Banking: Textbook / edited by prof. Korobova, G.G. M., 2003. 751 p.; *Giylarovskaya, T.G., Panevina, S.N.* The complex analysis of financial and economic results of activity of bank and its branches. SPb., 2003. 240 p.; *Lavrushin, O.I.* Bank risks: the Manual. M., 2008. 232 p.

⁷ *Sinky, G., jr.* Management of the finance in commercial banks. M., 1994. 820 p.