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CAPITAL REQUIREMENTS FOR BANKS

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ABSTRACT: The impact of bank regulation on risk-taking behavior has been a major focus during periods of severe financial crises. While there is still an ongoing debate whether regulation is beneficial at all, regulation is an evolving process and a number of regulatory guidelines have been issued by the Basel Committee on Banking Supervision and by national regulators over time.

ОСНОВНИ БАНКОВИ ИЗИСКВАНИЯ

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РЕЗЮМЕ: Ударението на банковите наредби, отнасящи се до рискови операции е насочено предимно по време на тежките финансови кризи. Докато все още продължават дискусиите по отношение дали наредбата е добра или не, то тя непрекъснато се усъвършенства като междувременно се издават голям брой наредби (насоки) от ръководството на Базелския банков комитет и от национални закони .

The financial services industry is generally seen as unique in the sense that the importance of a sound financial system has probably led to more regulatory interference in this industry than in any other. In the last decades, the business environment became more risky having a negative impact on the ability of commercial banks and other financial institutions to properly function within the economic system. Therefore, the issue of an efficient and effective risk management in banking became an up-to-date necessity more than ever before. In fact, risks arise form every transaction and process in banking.

Banks, which are profit-making organizations acting as intermediaries between borrowers and lenders attracting temporarily available resources from business and individual customers as well as granting loans for those in need of financial support, are profitable only if they charge a price that exceeds the cost of delivering a product or service and the cost of any loss resulting from the risks that arise in carrying out the transaction. Consequently, it is essential that commercial banks identify all risks associated with each business they are entering into.

Since exposure to significant risks in banking reduces the present value of expected future cash flow, bank managers must increasingly have at their disposal effective risk management techniques in order to manage risks proactively.

One of the greatest risks faced by banks during their operating procedures and management decision making is the insolvency risk. In order to reduce it banks have to abide certain prudential regulations. The insolvency risk (also called the capital risk or the bankruptcy risk) can be defined as the possibility that a bank could face the situation of not having enough capital to continue its activity or the possibility that the bank doesn't abide by minimum capital standards set by the banking authority.

Thus, we can say that a bank is considered insolvent in case it cannot fulfill its obligations, the funds owned by the bank being insufficient to cover the loss resulted from current activities and this situation will negatively affect the entire amount of credit investments of the bank. Actually, the insolvency risk depends on the fluctuation of the expected returns and the level of expenditures covered from them. A bank is going to face serious difficulties in case it is unable to cover the loss with capital because, most of the times, the loss is higher than the equity capital owned by the bank.

Once materialized, the insolvency risk leads the bank to a stage of bankruptcy, which means that the insolvent bank is going to be closed by the banking authority. There are a number of reasons that determine the bank to become insolvent, but statistics show that most of the bankruptcies are caused by the inferior quality of bank assets.

A large scale breakdown of financial intermediation causes huge economic and social costs. Banking crises have not only shown that banks often take excessive risks, but that risk taking differs across banks. Some banks engage in more risks than their capital can bear in case the downside potential of the risks fully materializes, in which case these banks need to be intervened or even closed down. Others are more prudent and would be able to weather a banking crisis.

The banking industry is generally seen as unique in the sense that the importance of a sound banking system has probably led to more regulatory interference in this industry than in any other. Various policy measures have been initiated to improve stability in banking by ensuring an appropriate combination of official and market discipline for banks. It has also been a widely held view that official discipline which is implemented by supervision and regulation should, ultimately, be directed towards achieving the overall stability of the banking system.

There are broadly two sets of reasons often given for capital regulation in banking, namely depositor protection and systemic risk. Banks are often thought to be a source of systemic risk because of their central role in the payment system and in the allocation of financial resources, combined with the fragility of their financial structure. Banks are highly leveraged with relatively short-term liabilities, typically in the form of deposits, and relatively illiquid assets, usually loans granted to firms. In that sense banks are said to be "special" and hence subject to special regulatory oversight.

Bank regulators have long regarded the prevention of systemic risk as the fundamental reason for imposing capital requirements on banks. The assumption is that shareholders will not take account of the social costs of systemic risk in their capital decisions and so will tend to hold less capital than if these spillover costs were considered.

The main challenge is to capture the two major sources of systemic risk: first, banks might have correlated exposures and an adverse economic shock may directly result in simultaneous multiple bank defaults; second, troubled banks may default on their inter-bank liabilities and therefore cause other banks to default inducing a domino effect. Among the two sources of systemic risk the correlation in exposures is far more important than financial linkages.

The central bank is responsible to use its authority and expertise to anticipate financial crises (including systemic disturbances in the banking system) and to manage such crises once they occur. The methods of modern risk management when combined with a careful analysis of financial linkages between banks provide a powerful set of tools to address this issue.

The impact of bank regulation on risk-taking behavior has been a major focus during periods of severe financial crises. While there is still an ongoing debate whether regulation is beneficial at all, regulation is an evolving process and a number of regulatory guidelines have been issued by the Basel Committee on Banking Supervision and by national regulators over time.

In fact, in order to deal with the insolvency risk, banks have to abide certain prudential regulations concerning the minimum capital requirements and capital adequacy ratio. Capital requirements are intended to diminish the risks of adverse selection by ensuring that the bank has at least some minimal level of resources to honor its commitments to its customers. Capital requirements are also intended to ensure that banks do not engage in fraud and avoid loss of equity value. To be effective in this role, capital requirements must be sensitive to the risks to which a bank is exposed.

The 1988 Basel Accord, one of the milestones in banking regulation, set up *minimum capital requirements* for banks. The idea is to oblige banks to hold capital as a safety cushion to ensure bank solvency. Banks holding riskier assets must hold more capital as they have a higher probability of failure. In this regard, commercial banks must permanently maintain their equity capital and funds at the level settled by the banking authority. Regulations concerning the minimum capital of banks are periodically updated as a result of inflation.

Formal and systematic bank capital regulation is relatively new. The 1988 Basel Capital Accord also called Basel I (Basel Committee on Banking Supervision – BCBS, 1988), which set minimum capital standards for internationally active banks, was really the first international accord of its kind. It succeeded at raising capital levels at a time when they were quite low. The New Basel Accord (Minimum Capital Requirements – Pillar 1) presents the calculation of the total minimum capital requirements for credit, market and operational risk. The capital ratio is calculated using the definition of regulatory capital and risk-weighted assets. The total capital ratio must be no lower than 8%.

In Romania, commercial banks must permanently maintain their equity capital and funds at the level settled by the banking authority. Regulations concerning the minimum capital of banks are periodically updated as a result of inflation.

The Rule no.11/2003 regarding individual and consolidated supervision of funds regulates minimum capital requirements as well as the methodology of determining and reporting them, repealing The Rule no.16/2002 regarding the minimum capital of banks which had established for the first time the compulsoriness for banks to maintain the funds owned by them at least at the level of equity capital.

According to regulations in force Romanian banks and branches of foreign banks should have an amount of minimum capital around 370 billion lei until May 2004.

Both the tables and the figure presented (table 1, table 2 and figure 1) show the fact that the trend of minimum equity capital in the Romanian banking system during 2000-2004 was growing. The biggest increase from a year to another took place in 2002 when the minimum capital for banks set by the National Bank of Romania grew 1.66 times in comparison with the previous year. So far, this policy of the NBR has prevented the proliferation of many weak non-viable banks and implicitly a chain of bankruptcies in the banking system. In order to avoid bank insolvency, banks must have a solid financial situation, *capital adequacy* being the main way of preventing and hedging the insolvency risk. The Committee from Basle established international regulations concerning the indicator of capital adequacy (the ratio between the equity capital and the risk-adjusted assets of the bank) in 1988.

The 1988 Basel Accord defined what constituted bank capital and put in place minimum capital adequacy ratios for each type of capital as well as for total bank capital. Regulators as well as market participants, however, have come to rely on equity capital as the main constraint for controlling bank behavior. This convention was applied to every bank performing international activities.

Table 1.
Indexes for estimating the relative variance of minimum equity capital of Romanian commercial banks during 2000-2004

	Indexes with fixed base				Indexes with chain base			
	I 2001/2000	I 2002/2000	I 2003/2000	I 2004/2000	I 2001/2000	I 2002/2001	I 2001/2000	I 2002/2001
Minimum equity capital	1,5	2,5	3,2	3,7	1,5	1,66	1,28	0,15

Table 2.
The evolution of minimum equity capital during 2000-2004

Date	2000	2001	2002	2003	2004
Value (billiard lei)	100	150	250	320	370

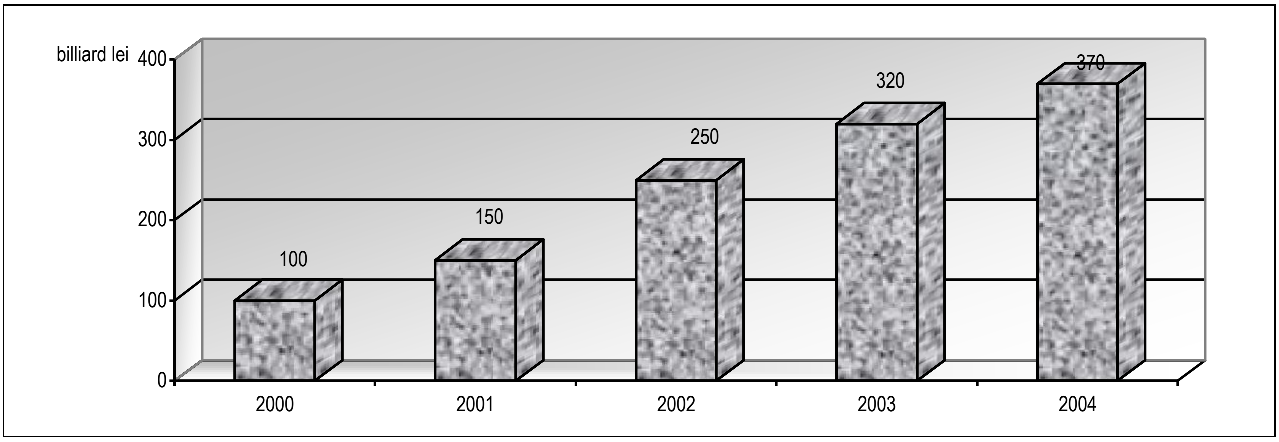

Fig.1. The evolution of minimum equity capital during 2000-2004

Over the last decade, capital requirements have effectively replaced reserve requirements as the main constraint on the behavior of banks. Over the same period, the Basel Accord, originally developed for the G-10 countries, was gradually adopted by a large percentage of countries in the world. The supervising authorities have embraced the stipulations from this convention. In Romania, the National Bank has settled a certain level of solvency for the commercial banks, level that must be permanently assured.

It was the risk-adjustment of the assets which became the focus of regulatory reform resulting in the New Basel Capital Accord, also called Basel II (BCBS, 2001). The New Basel Accord for bank capital regulation is designed to better align regulatory capital to the underlying risks by encouraging more and better systematic risk management practices. Compliance with an even more risk sensitive capital ratio is only one of three pillars under the Accord. Revisions to the New Accord also introduce banks' internal assessments (subject to supervisory review – Pillar 2) of capital adequacy and market discipline (through enhanced transparency – Pillar 3) as key components or prudential regulation.

The Second Pillar presents the key principles of supervisory review, risk management guidance and supervisory transparency and accountability produced by the Committee with respect to banking risks, including guidance relating to, among other things, the treatment of interest rate risk in the banking book, credit risk (stress testing, definition of default, residual risk, and credit concentration risk), operational risk, enhanced cross-border communication and cooperation, and securitization. The supervisory review process of the Framework is intended not only to ensure that banks have adequate capital to support all the risks in their business, but also to encourage banks to develop and use better risk management techniques in monitoring and managing their risks. The supervisory review process recognises the responsibility of bank management in developing an internal capital assessment process and setting capital targets that are commensurate with the bank's risk profile and control environment. In the Framework, bank management continues to bear responsibility for ensuring that the bank has adequate capital to support its risks beyond the core minimum requirements.

The purpose of Pillar 3 - market discipline is to complement the minimum capital requirements (Pillar 1) and the supervisory review process (Pillar 2). The Committee aims to encourage market discipline by developing a set of disclosure requirements which will allow market participants to assess key pieces of information on the scope of application, capital, risk exposures, risk assessment processes, and hence the capital adequacy of the institution. The Committee believes that such disclosures have particular relevance under the framework, where reliance on internal methodologies gives banks more discretion in assessing capital requirements. In principle, banks' disclosures should be consistent with how senior management and the board of directors assess and manage the risks of the bank. Under Pillar 1, banks use specified approaches/methodologies for measuring the various risks they face and the resulting capital requirements. The Committee believes that providing disclosures that are based on this common framework is an effective means of informing the market about a bank's exposure to those risks and provides a consistent and understandable disclosure framework that enhances comparability.

One way to address the problems with current capital adequacy ratios would be to develop more sophisticated ways of measuring capital adequacy. The Basel Committee on Banking Supervision has proposed three new capital adequacy frameworks to replace the 1988 Accord: a standard approach, the internal ratings based approach and the advance internal ratings based approach.

However, the proposed standard approach may be subject to many of the same problems as the existing Accord as banks continue to enhance their ability to measure and manage risk. The two ratings based approaches rely on banks' internal risk ratings, which avoid the problem of banks exploiting weaknesses in the standard model.

Nevertheless, a potential problem with the internal ratings based approaches is with the verification of individual banks' ratings, especially given that the use of these ratings to trigger supervisory discipline would provide additional incentive to build ratings models that underestimate risk.

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