BANK INSOLVENCY – REGULATORY CHALLENGES AND EMPIRICAL EVIDENCE

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Abstract: Nowadays bank insolvency is a specific field in bank capital management, which requires constant development of the existing regulations and application of new methods and tools for its prevention and early detection. The paper presents a study on bank insolvency in terms of regulatory challenges and empirical evidence for initiation of bankruptcy proceedings against credit institutions. The research thesis is that bank insolvency is a crisis phenomenon in banking practice whose theoretical modelling, regulatory management and empirical investigation require constant improvement of the regulatory framework and supervisory bodies of the central banking institution. The aim of the study was to perform a critical analysis of the evolution of the regulatory framework related to bank insolvency management using empirical evidence from the banking practice in Bulgaria.

Keywords: bank insolvency, CCB.

JEL: G21, G33.

Bank insolvency is a specific field in bank capital management, which requires constant development of the existing regulations and application of new methods and tools for its prevention and early detection. This paper presents a study on bank insolvency in terms of regulatory challenges and empirical evidence for initiation of bankruptcy proceedings against credit institutions.

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of the study was to perform a critical analysis of the evolution of the regulatory framework related to bank insolvency management using empirical evidence from the banking practice in Bulgaria.

The paper comprises three sections. In the first section we discuss the relationship between the banking system and bank insolvency. Section two reviews the response mechanisms in cases of bank insolvency, illiquidity, and bankruptcy. The third section focuses on the empirical aspects of CCB’s insolvency in terms of its causes, the problems faced by Bulgaria’s bank system of Bulgaria and the decisions taken by the regulators.

1. Banking system and bank insolvency

Banking systems are key components of all national economies and the global economy. Traditionally, they have a two-tier hierarchical structure under the supervision and control of a Central Bank. The primary objective of the Central Bank is “...to maintain price stability through ensuring the stability of the national currency and implementing monetary policy as provided for by...” (Art. 2 (1) of LBNB). Moreover, the Law on BNB provides that it “…shall regulate and supervise other banks’ activities in this country for the purpose of ensuring the stability of the banking system and protecting depositors’ interests.” (Art. 2(6) of LBNB) The regulatory function of the central banking institution is defined as “The Bulgarian National Bank shall: 1. determine by an ordinance the minimum reserve requirements which banks shall be required to keep with the Bulgarian National Bank, the method of their calculation, as well as the terms and procedure for interest payments on them; 2. establish by an ordinance other terms and requirements for the maintenance of the stability of the credit system.” (Art. 41 (1), items 1 and 2 of LBNB) The Governing Council of BNB has the authority to “grant, refuse to grant, and withdraw licenses of banks.” (Art. 16, item 15 of LBNB) Another important regulatory provision for the Governing Council of BNB is their power to take decisions as a resolution authority in the cases provided for in the Law on Recovery and Resolution of Credit Institutions and Investment Firms. (Art. 16, item 16 of LBNB).

In many respects, the above brief overview of the structure of the banking system and its main regulatory powers confirm the willingness of the legislator to rank, subordinate, and designate all structural units of the banking system so as to ensure the stability of the system itself. BNB’s management structure provides for strict banking supervision by means a constant information flow of disclosures, guidelines, regulations, measures and actions aiming to maintain the stability of the banking system. However, as principal
constituent units of the banking system, credit institutions may be affected negatively by external (macroeconomic) factors, poor internal governance, or both. In such cases the whole banking system may be distressed when some of its structural units assume unjustified risks and accumulate a critical volume of "toxic assets" that trigger a "domino effect" within the system due to the interbank lending and borrowing of credit institutions.

Such "intoxication" requires the application of a set of measures provided for by the Bank Bankruptcy Act, which would result in temporary or permanent de-licensing of the "toxic" credit institution and the appointment of a new management of financial conservators or trustees in bankruptcy. At this stage of its life-cycle, the banking institution has two alternatives: to be rehabilitated through a recovery plan and actions or to be declared in liquidation. However, commercial banks are not legal entities with limited influence and importance in the business and financial sector of a national economy. They are also international payment system operators. They have thousands of depositors, who trust them with their savings for safekeeping and profitable investment. Depositor's status is acquired by opening a deposit account with a TB.

Bank insolvency can also affect the interests of the bank’s borrowers if the "early claim" clause of their loan agreements is activated. A bank can be declared insolvent in two situations:

- If the total liabilities of the bank exceed its total assets. The excess is calculated using accounting methods and the book value of the assets and liabilities. When the bank is declared insolvent by decision of the court, a bankruptcy procedure may be initiated.
- When the total liabilities of the bank do not exceed its total assets, but the bank does not have enough liquid assets to cover its current liabilities, the bank is declared illiquid. In such a case the bank faces the risk of snowballing withdrawals that exceed the time-lag of its asset operations. In such

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2 For the purposes of our research the terms "credit institution" (CI) and "commercial bank" (CB) are used interchangeably.

3 For the purposes of our research the term "depositor" is used according to the definition in the LBDG, i.e.: “…a person who, pursuant to the statutory and contractual provisions applicable, has the right to receive the funds on the bank account or the credit balance ensuing from temporary positions as the result of usual banking transactions.” (§1, item 3 of the Additional Provisions of the LBDG)

4 For the purposes of our research the term “deposit” is used according to the definition in the LBDG, i.e. “‘Deposit’ shall be the kept on a bank account, irrespective of its type, opened in the name of one or more persons, or credit balance ensuing from temporary positions as the result of usual banking transactions, whereas the bank is obliged to repay such funds or balances to the depositors in pursuance of the statutory and contractual provisions applicable.” (§1, item 1 of the Additional Provisions of the LBDG)
situations the bank management usually requests a liquidity support from the CB and the CB may or may not provide the required funds. If the support request is not approved, the CB may designate the bank as a “toxic” unit of the banking system, withdraw its license until the appointed conservators establish its actual financial position in terms of assets, liabilities, property, and to capital.

For the purposes of this research the term bank insolvency shall be defined as the process of a bank’s governance (carried out by appointed conservators or trustees in bankruptcy) starting with the withdrawal of its license by a court-approved decision of the Governing Council of BNB under the provisions of Art. 13 (1) of LBB and the conditions provided for by Art. 36 (2) of LCI, passing through the stage of operative control of its balance sheet items (receivables and payables) and estate and is terminated by a judgement of the bankruptcy court, where either the debts have been repaid, or the property of the bankruptcy estate has been depleted (Art. 105 (1) of LBB), which entails the deletion of the bank from the Commercial Register.

In the course of the research we assumed that the conservator is a special and qualitatively new form of institutional bank manager (within a bankruptcy proceedings) whose effective actions, timely decisions, and preventive initiatives of a judicial and regulatory nature directly lead to the protection of the patrimony of the insolvent bank whose redemption shall provide the funds for reimbursement to the BDIF.

The banking system is built on strict financial reporting rules. “The aim of these reports is to implement a financial reporting framework in compliance with the International Accounting Standards and the International Financial Reporting Standards (IAS/IFRS) adopted by the European Commission with Regulation (EC) 1606/2002 of the European Parliament and of the Council of 19 July 2002. BNB implemented a mandatory standardized reporting framework in order to ensure comparability of the asset, liability, income, and cash flow items in the statements of the supervised entities (commercial banks). Moreover, the framework’s unified structure of balance sheet, income statement and cash flow statement items complies with the philosophy of the Basel regulatory standards and is a prerequisite for application of Basel II and the forthcoming BASEL III standards in response to the global financial crisis of 2008. The regulatory standards for balance sheet, income statement and cash flow statement items of commercial banks are the basis for developing a methodology for solvency analysis and assessment.

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5 The Bulgarian National Bank is obliged to withdraw the bank’s license due to insolvency, where the value of the assets of the bank is less than the value of its liabilities and the bank does not meet the conditions provided for in Art. 51, Para. 1 of the Law on the Recovery and Resolution of Credit Institutions and Investment Firms.

II. Reaction mechanisms in cases of bank insolvency, illiquidity, and bankruptcy

Creditors (depositors) are accounted for in the asset part of the balance sheet because they provide the funds extended as loans to borrowers (Захариев & други, 2015). These two categories of bank clients have different interests and receive different regulatory protection. The main difference in terms of regulatory protection is that depositors’ interests are protected by the provisions of the Law on Bank Deposit Guarantee and the Bulgarian Deposit Insurance Fund (BDIF). In Bulgaria this guarantee is limited to BGN 196 00. (Art. 4 of LBDG) of “depositors’ accounts with a bank.” The “Fund’s resources maybe used only for payments on deposits up to the amount guaranteed, in the cases where the Bulgarian National Bank has withdrawn the banking license granted to the commercial bank.” (Art. 23 of LBDG) Moreover, the provides that “Depositor’s claims in excess of the amount received from the Fund shall be settled from the bank’s property, pursuant to current legislations.” (Art. 23 (10) of LBDG). Bank insolvency can affect the interests of the bank’s borrowers as well where the "early claim" clause of their loan agreements is activated.

The research publications of (Hannan & Henweck, 1988), (Hainz, 2005); (Lastra, Northern Rock, UK bank insolvency and cross-border bank insolvency, 2008); (Strobel, Bank insolvency risk and Z-score measures with unimodal returns, 2011) (Campbell, 2006) propose some modern views about and globally-applicable policies for credit crisis management in cases of bank insolvency, including:

- **Liquidation of the “toxic unit”** in the banking systems following the example of Lemon Brothers in the USA on 15 Sept. 2008 through filing for a voluntary bankruptcy at the competent regulatory body. Such liquidation definitely has a “domino” effect on many other financial institutions following the rule “the larger the company, the greater global rippling impact.” (Johnson & Mamun, 2012);

- **Bailing out the institution having financial difficulties** through nationalization and reorganization plan following the example of Northern Rock in the UK in 2007–2008 г. (Lastra R., 2008) и the Greek banks during the Greek debt crisis after 2010. (Vogiazas & Alexiou, 2013).

- **Liquidation of the “toxic unit”** in the banking systems following the example of CCB, Bulgaria through a regulatory-induced insolvency procedure (see Figure 1).
CB’s reaction policy options in case of bank insolvency

Figure 1. Policy options for management of bank insolvency

The above three options have specific advantages and disadvantages, including in the context of the “too big to fail” (TBTF) doctrine. This doctrine was subject to scientific research long before the latest negative events in the 21st century (Pettway, 1980); (Hannan & Henweck, 1988). A recent research conducted in 2017 by (Kazandzhieva-Yordanova, 2017) confirmed that the TBTF doctrine has certain adverse effects and requires “certain measures to restrict government intervention in cases of insolvency of major banks”, whereas “…in the EU such measures are adopted mostly for the supervision of system-significant banks, capital requirements, banks’ capacity to cover losses with internal reserves and guarantee deposits.” The author reviewed the evolution of Deposit Guarantee Schemes, analysed their effect for the TBTF doctrine and proved that the development of deposit insurance had a contradictory effect for the TBTF doctrine. However, another recent survey conducted in 2011 studied the relationship between loan portfolio structure and insolvency exposure. (Rahman A. A., 2011); (Tsai, 2010). A research on the economies in transition (Hainz, 2005) confirms the direct relation between bank bankruptcy and investments financed with loans. (Campbell, 2006) studied the relationship between bank insolvency and depositors’ behaviour and put forward some arguments in favour of the bailing-out policy (the second option described above) compared to the direct insolvency procedure.
3. BNB’s behavior in the case of CCB’s insolvency

On 06 Nov. 2014, pursuant to the Law on Credit Institutions and The Law on the Bulgarian National Bank, the Governing Council of BNB withdrew the banking license of Corporate Commercial Bank AD, which was one of the system-significant Bulgarian banks. The withdrawal decision comprised four main points:

First. The BNB Governing Council revoked the license for conducting banking activities granted by the BNB Governor’s orders.

Second. On the grounds of the Law on Bank Bankruptcy, the competent court of law was petitioned to open bankruptcy proceedings for the said bank.

Third. On the grounds of the Law on Bank Bankruptcy, the Bulgarian Deposit Insurance Fund was notified of the petition filed to the competent court of law for opening bankruptcy proceedings for the said bank, so that preparatory actions can be initiated for the appointment of an assignee (trustee) in bankruptcy.

Fourth. On the grounds of the Law on Credit Institutions, until an assignee in bankruptcy was appointed, the conservators of Corporate Commercial Bank AD were to continue to exercise their powers.

In the motives to the decision BNB stated that “…By the BNB Governing Council’s Decision No. 73 of 20.06.2014, CCB was placed under special supervision for risk of insolvency, for a period of three months, and conservators were appointed, the payment of all obligations of the bank was suspended, the bank’s operations were limited as the bank was banned from conducting all activities under its banking license, the members of its Management and Supervisory Boards were dismissed, and the shareholders directly or indirectly holding over 10 percent of voting shares were divested of their voting rights.”

A parallel review of CCB’s assets was assigned and was carried out jointly by three auditing teams. The review of assets was partial and primarily covered the loan portfolio and the investment portfolio. The review was designed to assess the state and quality of 95.4 percent of KTB’s loan portfolio and 99.1 percent of its investment portfolio, and also to make a limited analysis of the bank’s liabilities. The review established that important information was missing on the financial circumstances of a category of borrowers (loans totalling BGN 3.5 billion, which was 65% of the entire loan portfolio of BGN 5.4 billion.) Significant indications of credit risk were found about the repayment of credit exposures in that category of borrowers. The credit risk concentration was considered sufficient evidence for credit risk exposure exceeding by far the regulatory limits.
The BNB Governing Council’s Decision of 31 July 2014 approved a Report on CCB’s current position, submitted by the bank’s conservators. The same decision instructed CCB’s conservators to sign additional contracts with the audit firms for a thorough assessment of CCB’s assets to be completed by 20.10.2014. With a Decision of 16 September 2014, the BNB Governing Council extended through 20.11.2014 the term of CCB’s special supervision. The audit firms’ assessment was done based on the assets and bank guarantees entered in the bank’s records as of 30.06.2014 while reflecting all significant events until 30.09.2014 which affect the analysis.

<table>
<thead>
<tr>
<th>Balance-sheet item according to sample</th>
<th>Value according to the bank’s registers as of 30.06.2014</th>
<th>Value according to the bank’s registers as of 30.09.2014</th>
<th>Necessary impairments based on the analysis and assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loans granted to non-financial institutions and other clients (loan portfolio)</td>
<td>5 301</td>
<td>5 335</td>
<td>-4 057</td>
</tr>
<tr>
<td>Investments available for sale (investment portfolio)</td>
<td>380</td>
<td>376</td>
<td>-144</td>
</tr>
<tr>
<td>Securities (investments) held for trading (trading portfolio)</td>
<td>11</td>
<td>9</td>
<td>0</td>
</tr>
<tr>
<td>Other assets</td>
<td>353</td>
<td>141</td>
<td>-3</td>
</tr>
<tr>
<td>Property owned by the bank</td>
<td>60</td>
<td>59</td>
<td>-18</td>
</tr>
<tr>
<td>Investment in CB Victoria</td>
<td>5</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total amount</strong></td>
<td><strong>6 109</strong></td>
<td><strong>5 925</strong></td>
<td><strong>-4 222</strong></td>
</tr>
</tbody>
</table>

Source: BNB

The auditors’ findings and conclusions revealed a striking amount of impairment of CCB’s assets totaling BGN 4.222 bln., which was equal to 5.14% of Bulgaria’s GDP in 2014.

A parallel on-site inspection was carried out in KTB by a team of experts from the BNB Banking Supervision Department. The inspection was carried out in three stages with a scope and goals as follows:

**Stage One** – finding out the completeness of credit files – object of review during the last supervisory inspection (based on data as at 31.03.2013) and comparing with the content of the same as at 30.05.2014;

**Stage Two** – assessment of the administration of credit files for loans extended after 31.03.2013, as well as credit deals outside the sample reviewed in the last supervisory inspection carried out based on data as at 31.03.2013,
but included in the sample of the three audit firms conducting the asset review;

**Stage Three** – tracing the cash flows related to the drawdown of funds on these loans and their servicing, the likely connectedness of borrowers from the bank’ loan portfolio, the origin of funds for the increase of the shareholders’ equity and the issue of other capital instruments included in the institution’s capital.

The findings and conclusions from the inspection allow reaching a substantiated conclusion that the “bank’s controlling and management bodies applied vicious banking and business practices by submitting misrepresenting and misleading financial and supervisory reports.”

Based on the financial and supervisory reports of CCB as of 30.09.2014, submitted on 4.11.2014, the BNB Governing Council established that CCB’s own funds have a negative value of minus BGN 3.745 bln., and that the bank does not meet the capital requirements under Regulation (EU) No. 575/2013. The following ratios were reported by the bank:

- Common Equity Tier 1 capital ratio: -188.03 %;
- Tier 1 capital ratio: -188.03 %; and
- Capital Adequacy Ratio: -180.18 %.

In parallel with CCB’s assets review notifications of cessions of receivables concluded between the bank’s customers, and declarations of intention to set off liabilities to the bank with receivables from it acquired under cession agreements, were received after the date of placing the bank under special supervision. The conservators informed that as of 31.10.2014, the receivables transferred under cession agreements amounted to BGN 1,183,714 thousand in total, and the declarations of intention for setoffs amounted to BGN 779,055 thousand. Even if all cession and setoff notifications had been reflected in the bank’s accounting books, the financial result of CCB as of 30.09.2014 would have improved by only BGN 161,468 thousand owing to impairments that would be eliminated (respectively reversed) as a result of liabilities to the bank that have been fully or partially repaid under the declarations of intention for setoffs of the above-mentioned amount. As a result, CCB’s own funds remained a negative value. Therefore, according to the Law on Credit Institutions, the Bulgarian National Bank had to start a procedure for withdrawal of the bank’s license due to insolvency, where it has found that the amount of the bank’s own funds is negative.

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Bank managers must have a detailed and in-depth knowledge of bank lending technology and the effects of the various factors on bank loans in order generate profits and avoid losses. Nevertheless, the Bulgarian finan-
cial system reported a serious turmoil in 2014 and 2015, which was caused stemming by the special supervision of one of the leading system banks - Corporate Commercial Bank. On 23 Sept. 2015 the appointed trustees in bankruptcy of the bank published a report of 575 pages with a detailed description of the breaches of lending principles and capital management committed by CCB. The apparent violation of these principles had turned a seemingly well-functioning and growing CB into a blatant example of non-compliance with the regulatory capital adequacy standards and disruption of bank solvency.

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