The Effectiveness and the Efficiency of the Banking Supervisory Activity. An Empirical Analysis

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Abstract

The recent financial crisis has proven just how expensive the process for the reestablishing of the financial stability and for restoring the public confidence in the banking system, actually is. Given its effects and the skepticism regarding the effectiveness of the supervisory systems of the financial markets, it is only natural to wonder whether the compliance with the regulatory standards in the prudential banking field, can be considered as sufficient for ensuring the viability and resilience of the banking systems.

The answer was given by the reaction of the political factors, consisting in the setting up of a new regulatory and supervisory framework at EU level, well structured and integrated, which must, however, be sustained by reconsidering the approach on the supervisory activity at each Member State's level. Therefore, the assessment of the supervision of the credit institutions, performed by the national supervisory authorities, represents a key factor.

Keywords: *prudential supervision, efficiency, effectiveness assessment, risk matrix*

JEL classification: G20, G21

Introduction

The more pronounced/ emphasized tendencies for the integration and globalization of the financial markets, as well as the development of IT and communication technologies, characteristic for the past decades, have fueled the financial institutions' appetite for taking huge risks, while aiming for bigger profit. As expected, the consequences were disastrous, both at individual level, for the financial institutions involved in these types of practices, as well as global level, by threatening the stability of the financial systems in which they were performing their activity. According to the IMF statistics, the net[2] direct fiscal cost of the crisis represented appreciatively 2,7% of the GDP for the advanced G20 Member States, although the allocated sums, including guarantees and other off-balance sheet obligations, were summed up at about 25 % of the GDP.

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[2] „Communication from the Commission to the European Parliament, the Council, the European and Economic and Social Committee and the European Central Bank – Bank Resolutions Fund", COM (2010) 254 final, European Commission, Brussels, 26.05.2010, p. 2

Although through a huge effort, which gathered the governments of the Member States, central banks and lastly, but not least, certain institutions which function at EU level, the implications of the financial crisis, thus triggered, were mostly limited, there was still a series of consequences which influenced the new view regarding the importance of maintaining the solidity and viability of the financial systems. As testimony for the new conceptual approach thus outlined, are the post-crisis steps adopted at EU level, which were materialized in an ample revision process of the prudential regulatory framework, sustained by reconfiguring the Pan-European supervisory architecture.

The response of the European Union to the crisis must, however, be continued through a coordinated and conjugate effort of each Member State, focalized on adopting those measures which would lead to the rise of the effectiveness of the financial system's supervision from their own jurisdiction, a key factor for ensuring and maintaining the financial stability, which represents itself a precondition[1] of economic growth.

However, in order to comply with this requirement and to undertake those steps which would lead to the improvement of the supervisory activity's quality, it is necessary that each authority with responsibilities in this field, should know whether it performs it in an effectively manner.

The concept of **„*effectiveness*”**[2] is defined as „*the degree of fulfillment of the programmed objectives for each of the activities and the relation between the projected effect and the actual result of the respective activity*". Extrapolating the meaning of this phrase upon the objective with the highest constancy in a supervision authority's mandate, namely ensuring the financial stability, by ***the effectiveness of the supervisory activity*** we understand the accomplishing of its mandate. For the scope of the proposed model, we will subdue this definition to the mandate of the National Bank of Romania, in its position of supervisory authority for the Romanian banking system, established at Art. 2 para.2 letter b) by law[3], respectively *"authorization, regulation and* ***prudential supervision of the credit institutions****, promoting and monitoring the well functioning of the payment systems* ***to ensure the financial stability****"* by ***ensuring a healthy and viable***[4] ***banking system***.

Also, we propose the completion of the *"effectiveness"* concept, by analyzing it in relation with another concept, which is ***"efficiency"***[5] defined as ***"the maximization of the results of an activity in relation to the resources used"***.

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[1] Cerna et all, *"Financial Stability", West University Publishing*, 2008, p. 125

[2] Regulation No. 18/2009 on governance arrangements of the credit institutions, internal capital adequacy assessment process and the conditions for outsourcing their activities, (published in Official Gazette of Romania no.630/2009) subsequently amended and supplemented, (Art.2 para (2) lit. Y)

[3] Law no.312/2004 regarding of the Statute of National Bank of Romania (published in Official Gazette of Romania no. 582/2004), subsequently amended

[4] Ibidem[4], Art.25 para. (1), (2)

[5] Regulation No. 18/2009 on governance arrangements of the credit institutions, internal capital adequacy assessment process and the conditions for outsourcing their activities, (published in Official Gazette of Romania no.630/2009) subsequently amended and supplemented, Art.2 para (2) lit. Z

1. The composing elements and the functional diagram of the model for assessing the effectiveness of prudential supervision of the credit institutions

The proposed model is based on the tools presently used in the supervisory activity and targets the assessment of risks, as well as of prevention or protection measures applicable for their control.

The architecture of the model, therefore implies using the information acquired by the National Bank of Romania, in its position of supervisory authority, based on the received reports, as well as from the on-site inspections, these serving as reference base for the identification, measurement, aggregation and adequate monitoring of risks, as well as for using and developing solid systems for their detection, assessment and management.

The functioning of the model follows the steps taken in the current assessment activity of the credit institutions, accomplished by applying the methodology provided by the CAAMPL uniform system, while mentioning that for the banks with systemic importance, a quantitative filter was introduced, which consists in the differentiation of the value scale for the indicators calculated for the appreciation of each of the quantitative components of the system, as well as of a qualitative filter regarding the impact of the European mandate implementation in the supervisory authority's activity (which in the context of the said assessment was not exercised). The results of this assessment are later refined by applying, afferent to component C – Capital adequacy and L – Liquidity, qualitative filters that imply their assessment from the perspective of the fulfillment of some dedicated principles, issued by the Basel Committee, and which complete the quantitative dimension of these components, priory assessed. Also, the analysis of each credit institution's status is additionally assessed in a holistic approach, focusing on the assessment of the entire risk management framework, its results being reproduced through the risks matrix. Another benefit from using this tool, in the context of the proposed model and which represents a novelty, is the identification of the manifestation tendency of the identified risks. The results of this assessment, considering the risk, are an adjustment factor, in the sense of the appreciation or depreciation of the given ratings, obtained by taking the prior steps. The ratings given at the end of the assessed period (in the context of the proposed model, the assessment is annual), compared to the ones from the beginning of the financial exercise, are consolidated through the signals generated during the Early Warning System (EWS), by a group of indicators proposed to be analyzed in close correlation, as well as by the results of the stress-testes carried on in order to identify possible tendencies of capital erosion.

We further proposed the application of direct effectiveness assessment factors, which are to detect the opportunity of the steps (intervention matrix) taken by the supervisory authority, in relation to the financial and prudential situation of the credit institution and to the risk management framework implemented at its level. These factors target the accomplishing of the condition of not registering, during an assessed period, a depreciation larger than two rating classes, on each CAAMPL component. In addition to this requirement, for the banks with systemic importance, there is also a condition of not registering a placement in the rating 5 class, except for the case where such a qualification is not imputable to the supervisory authority. The fulfillment of these requirements proves that the measures adopted were implemented accordingly and have reached their purpose. The assessment of the effectiveness is then completed by applying some indirect factors which analyze, from a different perspective, the opportunity of the measures imposed by the supervisory authority, in relation to the constant evolutions at the level of each credit institution.

The fulfillment of the mandate entrusted by the lawgiver to the National Bank of Romania, respectively ensuring a healthy and viable banking system, by undertaking an effective activity, also implies its efficient accomplishment, thus considering the maximization of the results of the activity carried on during a financial exercise, afferent to each of the assessed banks, in relation to the resources used.

The mentioned process, accomplished within the proposed model, is graphically synthesized in the diagram 1.

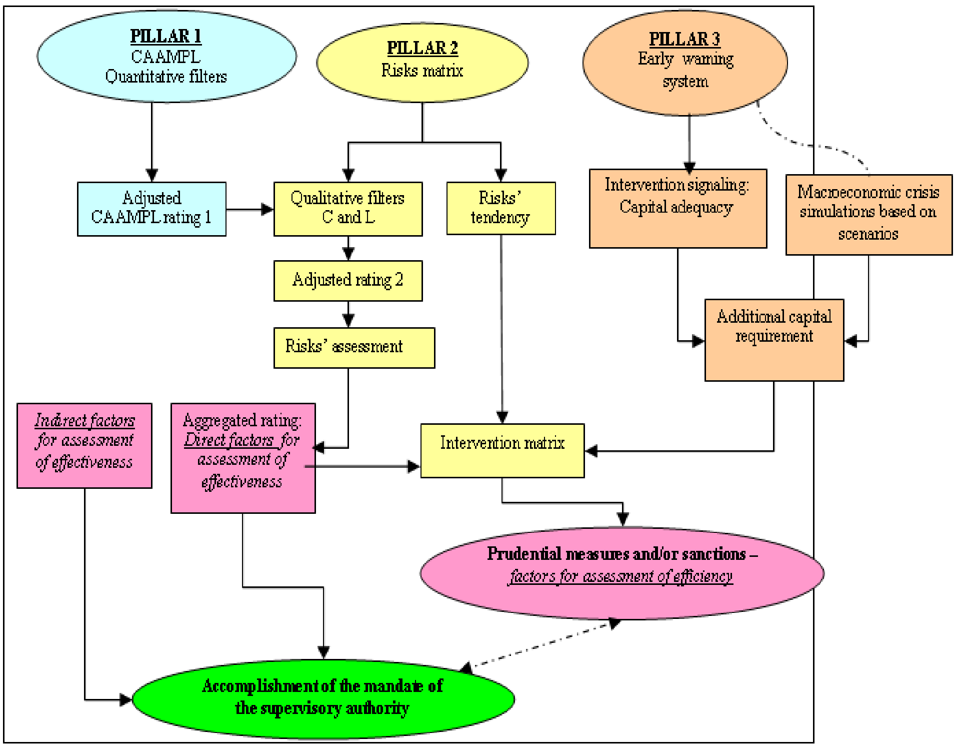


Figure 1 The Diagram for the functioning of the model for the credit institutions' prudential supervision effectiveness assessment

2. Empirical analysis and the interpretation of results

In the article named ***Model for the assessment of the effectiveness of the banking supervision activity***[1] we presented the functioning mode pf the proposed model, on a simulated database, including a number of credit institutions and a structure[2] for them that respect the real situation for each of the periods analyzed[3]. Also, in order to ensure a presentation which would allow, on one hand, the detection of all the essential elements which intervene in the assessment process, and on the other hand, the reproduction, in a transparent and concise manner, of its functioning stages, we continued the analysis from this study, by selecting two credit institutions, the first with systemic importance, hereinafter Bank 1, and the second, from the medium and small size category, hereinafter, Bank 2.

Thus, the analysis we conducted within **pillars 1 and 2**, while considering the amendments proposed for the supervisory tools currently used, and which are a component part of the model, have lead, in the case of **Bank 1**, to the modification of the ratings obtained in the initial CAAMPL system, in the sense that there was a decrease in the rating assigned. In this case, applying the two qualitative filters, on components C – Capital adequacy and L – Liquidity, did not lead to the modification of the ratings obtained during the prior assessment. The aggregated rating obtained as a result to the application of the quantitative and qualitative filters from within the two pillars, was a diagnosis element for the magnitude of the risks and a basis for the establishment of the intervention formula of the supervisory authority, also sustained by the result obtained from the application of the early warning system, as well as by the result of the stress tests, both performed in the basis of **pillar 3**.

These results were completed by the signaling of a growth tendency of exposure to the credit and liquidity risk, in the context on running the risks matrix, even though the rating obtained by cumulating the result of prior assessments is maintained.

Using these two supervisory tools has confirmed the growth tendency of the **credit risk**, as it was identified in the context of running the risks matrix from within pillar 2 and it also indicated the **existence of a capital erosion phenomenon** which requires the intervention of the supervisory authority.

According to the proposed model, the assessment of the effectiveness also implies the analysis of the way of exercising of the statutory prerogatives by the supervisory authority, using the ***decisional matrix for progressive remedial actions***. The principles governing its functioning are subordinated to the gradual approach concept, adapted to the magnitude of the identified risks.

[1] Nicolae Dardac, Elena Georgescu, „*Model for the Assessment of the Effectiveness of the Banking Supervision Activity”*, Theoretical and Applied Economics, EBSCO Publishing, Bucharest, Volume XVIII (2011), No.5(558), p.5-16

[2] The structure based on three banks categories depending on the size of assets: large, medium and small

[3] In case of the presented example, the analyse was focused on year 2009, while the period the exercise was carried on was 2008 - 2010.

In concrete, after the undergoing of the stages priory described, we have obtained **a data base on which we have applied the assessment criteria for the assessment of the supervisory activity's effectiveness, respectively**:

▪ Bank 1 – bank with systemic importance – was not classified in the rating 5 class – criteria fulfilled;

▪ Bank 1 has not met a decrease in the rating assigned on each component of the CAAMPL system, as opposed to the beginning of the analyzed period – criteria fulfilled;

In order to complete the dimension regarding the effectiveness of the supervisory activity in relation to the this bank, we have made an analysis of the steps taken by the supervisory authority, finding that none of the measures imposed by it was contested by the Board of Directors of the National Bank of Romania.

The dysfunctions registered on the liquidity component and the measures adopted, have lead to improvement of the rating from 4 to 3, and the ones disposed in order to limit the effects of the capital erosion tendency were materialized in the maintaining of a rating 2, afferent to component C – Capital adequacy.

The mentioned evolutions sustain the rightness of the applied measures and thus, the accomplishment of the expected effect.

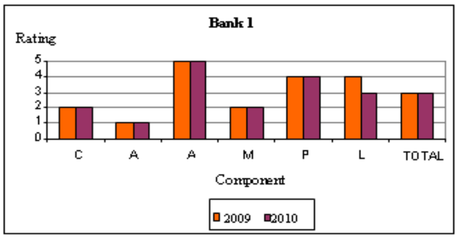
As a result, by running the proposed model, we have proven that, in the case of Bank 1, the activity carried on by the supervisory authority can be considered to have answered to the effectiveness criteria, conclusion which was completed by the second dimension of the assessment of the supervisory activity, respectively "***the efficiency***". **This,** in the case of Bank 1, is emphasized by the fact that the measures imposed were in line with the three principles applicable to the intervention tools, namely the proportionality, the discouraging effect and the efficiency, thus proving ***the maximization of the results of the activity in relation to the resources used.***

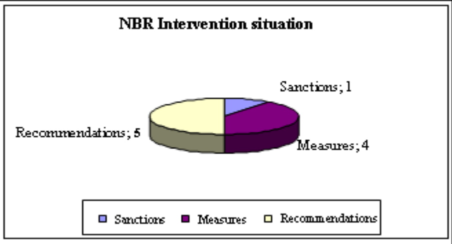
In order to consolidate the results obtained from running the model afferent to the year 2009, we have applied the presented methodology for the next financial exercise as well.

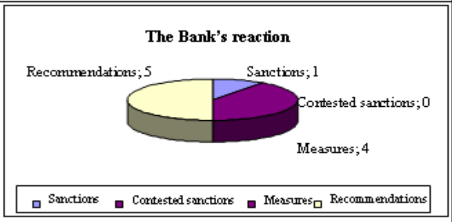
The synthesis of the stages covered within the model for the assessment of the prudential supervision's effectiveness, by highlighting the direct and indirect factors involved in this process, while considering, accordingly, the factors for the assessment of the efficiency, in the case of Bank 1, afferent to the mentioned period, is presented in tables no. 1 – 2 and, respectively cases no. 1 – 2:

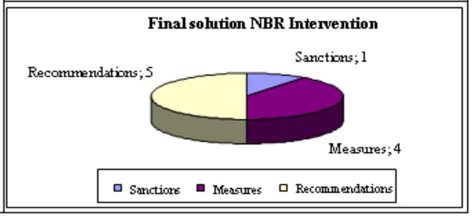
Table 1

Direct factors for the assessment of effectiveness	Indirect factors for the assessment of effectiveness
2009	









Case 1

Efficiency 2009

Sanctions (1)

- fine applied to the credit institution

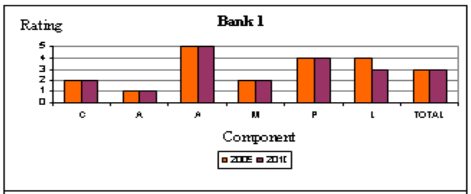
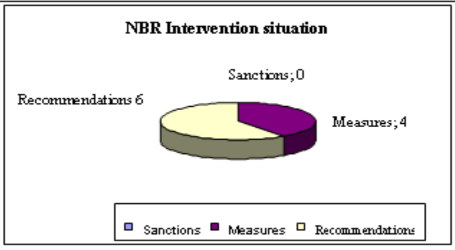
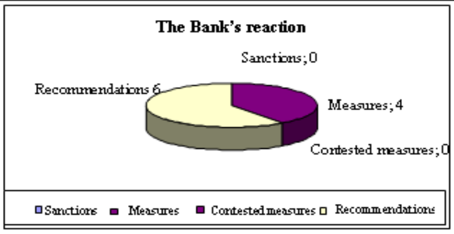
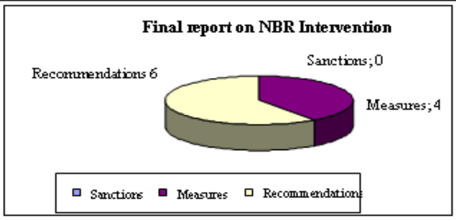
Measures (4), of which:

- diversification of the financing sources in order to eliminate the concentration risk of the financing sources
- concluding agreements for alternative financing
- close monitoring of the solvability indicator, by reporting monthly instead of the quarterly frequency imposed by the regulatory framework, together with the measure for maintaining a 10 % level of the solvability indicator
- improvement of the quality of the credit portfolio by performing analysis regarding the customer segment which recorded a high rate of default and reconsidering the bank's business strategy in relation to this segment

Recommendations (5), of which:

- revising the internal norm regarding the operational risk and the control self assessment, in the sense of defining the internal responsibilities related to the monitoring of the status of the actions for implementing the operational risk reduction, agreed after caring on of the seminaries for the operational risk and control self assessment
- implementation of a mechanism which would ensure the reconciliation of all the data regarding the exposures which are subject to classification, highlighted in different IT subsystems of the bank, with the ones from the accounting records

Table 2

Direct factors for the assessment of effectiveness	Indirect factors for the assessment of effectiveness
2010  	  

Case 2

Efficiency 2010
Measures (4), of which: ▪ revising ICAAP in the sense of elaborating methodology for establishing the capital requirement afferent o the concentration risk and the interest risk from outside of the transacting portfolio; ▪ revising the risk portfolio in the sense of reconsidering the level of significance regarding the operational risk events and the levels established for the operational risk indicators ▪ revising the internal framework regarding the corporative governance ▪ elaborating a policy regarding the restructuring of the problematic assets; **Recommendations(6), of which:** ▪ revising the bank's internal norms regarding the classification of credits and placements ▪ performing stress tests regarding the evolution of the portfolio of FX loans, based on additional scenarios which would ensure the assessment of the exchange rate risk and the default risk; ▪ performing an analysis in order to assess the techniques used for diminishing the credit risk, and the level of recognition of the credit risk mitigations ▪ total provisioning of a credit identified by the supervisory authority as having a high level of risk

In the case of Bank 2, from the medium and small size credit institutions category, running the conceived model, implied going through the same stages, as they have been priory described for Bank 1. However, a series of distinctive aspects can be noticed.

Thus, if in the case of **pillar 1**, there were no modifications of the rating on components, as opposed to the initial system (in the case of this bank, the quantitative filter is not applied), whereas regarding **pillar 2**, after applying the qualitative filters on components C - Capital adequacy and L – Liquidity, we could find a decrease by a class in the initial rating assigned to component C, which became 4 as opposed to 3 and the maintaining of the same rating for component L, namely 2. The ratings thus determined were also sustained by the result of the assessment based on the risks matrix, following the analysis made within the on-site and off-site supervisory activity, as well as by using the tools presented within **pillar 3**.

Table 3

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<tr><th>Direct factors for assessing the effectiveness</th><th>Indirect factors for assessing the effectiveness</th></tr>
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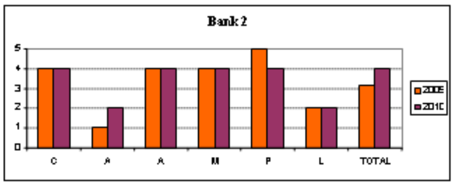
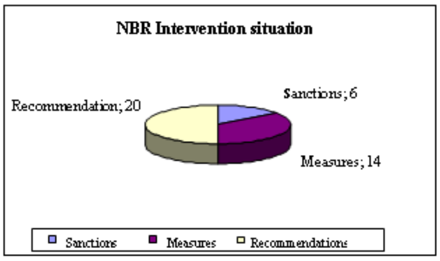

</td><td>
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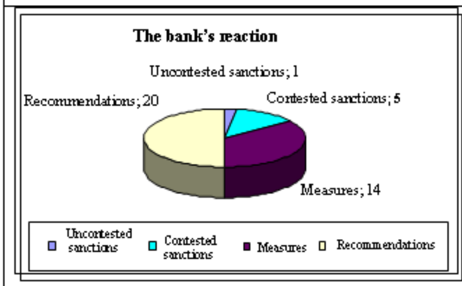
<tr><td>
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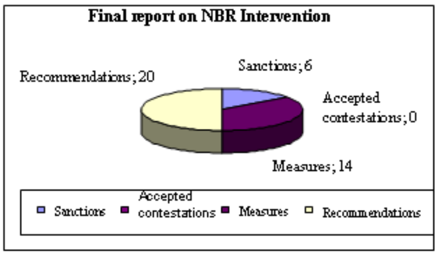
<tr><td>
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Case 3

Efficiency
Sanctions (6): ▪ applying fines for 6 senior managers and directors of the bank; **Measures (14), of which** ▪ increasing the share capital by cash contribution ▪ performing a clear delimitation between the activity performed by the bank and the one externalized to an entity within the group, also from the perspective of staff resources and used materials; ▪ revising the portfolio of internal regulations for the lending activity concerning consumer credits; ▪ improving the management framework for the lending activity; bank's real estate exposure will not exceed the level recorded at the date of the said measure. ▪ performing the self-assessment of the operational risks on which the bank is exposed and of the internal controls existing at the bank's level; ▪ revising the organizational structure, within which the organizational chart shall reflect an balanced projection, on all levels, of all the structures involved in the bank's activity, in order to eliminate risk-generating areas. ▪ monthly reporting of the solvency ratio **Recommendations (20), of which:** ▪ implementing an IT tool for monitoring the complaints received; ▪ restricting the logical access, for some employees, to the IT system's resources ▪ informing the CAR and the Audit Committee on the potential exposure of the bank to operational risk

Table 4

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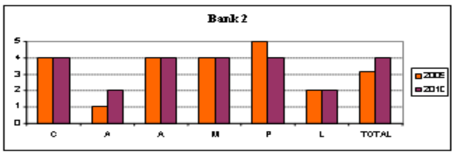
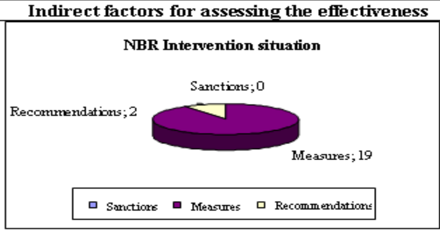

</td><td>
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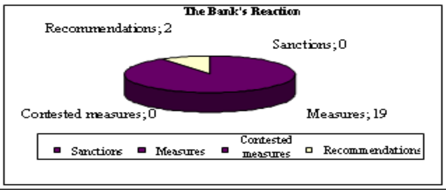
<tr><td>
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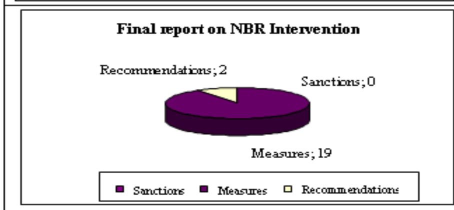
<tr><td>
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Case 4

Efficiency
Measures (19), of which: ▪ revising the internal regulations on lending to small enterprises and certified natural persons, so that the repayment capacity of the intended debtors to become a determinant element in adopting the lending decision, as well as setting additional requirements for verifying the supportive documents presented for authorizing withdrawals from the approved credit lines; ▪ defining escalation thresholds, report triggers and trend alerts for operational risk indicators already implemented by the bank; ▪ performing an analysis regarding the opportunity to maintain in the bank's offer, a lending product designed for the large companies segment, taking into account the weak results of this product in the process of exploitation and the bank's exposure to operational and reputation risk; ▪ analyzing the accounts which have unusual balances (asset-side accounts with credit balance and liabilities-side accounts with debit balance) in order to record those amounts in accordance with the economic nature of the respective accounts; **Recommendations (2):** ▪ reducing the factors which have generated the recording of high levels of risk; ▪ identifying problem assets and managing them based on internal regulations harmonized with the requirements of the legal framework on this matter.

Conclusions

The empirical analysis performed with the purpose of assessing the effectiveness and the efficiency of the prudential supervision of the credit institutions provides, in our opinion, the possibility to identify an answer to the following two major questions:

- what is the state of the banking system, considering its solidity and viability, as consequence of the supervisory act performed by the Central Bank?
- how opportune was the use of the tools available to the National Bank of Romania for correcting the deviations of the credit institutions' behaviour and/or their senior managers from the best practice, respectively how duly have they been used?

By implementing in practice the conceived model it will be possible to find whether the measures taken and/or proposed to the Management of the National Bank of Romania by the Supervision Department, within a fiscal year, will lead to reducing the identified risks and to improving the risk management framework and, respectively, whether the range of the intervention tools will be used so that to support the goal considered when the decision to exercise the statutory prerogatives is taken.

We therefore consider that the model we have proposed provides a comprehensive framework by which the direct and indirect tools available to the supervisory authority are gathered and involved, within a holistic approach, in a coherent mechanism which can be implemented in practice and allows the assessing of its activity's effectiveness.

In the context of designing the model, the analysis of the way in which the range of the intervention tools is used, compared to the size of the identified risks, reflected in the aggregated rating on each component, brings a significant contribution to the outcome of the effectiveness assessment process. However, it must be taken into consideration that, while implementing the proposed model, the current approach regarding the rating assignment system, which does not differentiate the systemically important credit institutions from the other assessed credit institutions, should be revised.

Finally, but not the least important, we consider that elaborating the model for assessing the effectiveness of the supervision performed by the Central Bank supports the efforts for improving the quality of the prudential supervision, on both its coordinates: micro-prudential and macro-prudential supervision, lounged within the post-crisis initiatives for eliminating the weaknesses and the dysfunctions which contributed to the starting of the current crisis and to the threatening of the stability of financial systems and EU Member States.

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