SPI Project: "Reviewing the Capital Adequacy Regulation"

Cost and Benefit Questionnaire on Impact on the banking system of the new Capital Adequacy Framework

Prepared by
SPI Albania Secretariat

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I. Context

BoA is seeking to improve and to expand the coverage of the regulation on capital adequacy in order to capture a wider range of risks faced by the banks. The current regulation on Capital Adequacy establishes the regulatory capital to risk weighted assets and off-balance sheet items ratio, and sets the minimum required limit for this ratio.

The methodology used in the current framework calculates the (minimum) regulatory capital to cover only for credit risk. Other risk typologies, such as operational risk, have not been addressed yet. Therefore BoA intends to improve risk management in line with Basel II, first pillar of the capital adequacy framework, by enhancing the methodology for calculating risk weighted assets to credit risk and by including the operational risk in calculating the capital requirement.

Given the current status of developments of the banking industry and the internal capacities, BoA has considered that the **Simplified Standardized Approach**[1] **or the Standardized Approach** as the most appropriate method for calculating credit risk charges. In line with the simplified standardized approach Basel Committee suggests the **Basic Indicator Approach** for operational risk.

SPI Albania, with the authorization of SPI Committee, has undertaken e project on the revision of the Capital Adequacy regulatory framework with the following objectives:

1. To prepare the necessary regulatory amendments for a sounder prudential risk management through the improvement of credit risk measurement and the introduction of the operational risk measurement.
2. To align better Bank of Albania's capital requirements with Basel II, first pillar, framework.
3. To define an implementation timeframe for the regulatory amendments.

PWG composition

Project Owner: **Mr. Indrit Bank,** Supervision Department, Bank of Albania.

Project Manager: **Mrs. Miranda Ramaj,** Supervision Department, Bank of Albania.

Deputy Project Manager: **Mr. Adela Xhemali**, Chef Financial Officer, Intesa SanPaolo Bank

Technical Anchor (TAN):

Project Working Group Members: **Ermira Tepelena,** Bank of Albania
Jola Dima, Intesa SanPaolo Bank
Alma Dhamo, Intesa SanPaolo Bank
Admir Ramadani, FIB
Entela Gjyzari, Banka Popullore
Bruna Jakovi, NBG Bank

[1] This approach is not considered as another approach *per se* for determining regulatory capital, it rather collects in one place the simplest options for calculating risk-weighted assets.

Altin Koci, ICB
Plator Ulqinaku, Union Bank
Majlinda Gjata, Raiffeisen Bank
Elsa Peca, Procredit Bank
Persefoni Papa, Procredit Bank
Merita Musliu, Emporiki Bank
Rajmond Pavaci, Tirana Bank
Aleko Polo, Tirana Bank
Sokol Pellumbi, BKT
Dimitrios Kakounis, Alpha Bank
Artiola Agalliu, Alpha Bank
Lyela Rama, FSA

II. Purpose of the banking survey

We are seeking through this survey to get your validation on the qualitative cost-benefit analysis, to assess the readiness to implement the new methodology on the calculation of the capital adequacy ratio, and the impact of the new methodology on requirements for capital.

III. Procedures to run the banking survey

You are kindly requested to support the Capital Adequacy framework revision processes by answering this questionnaire.
Please send your answers to SPI Secretariat who stands ready to offer you more details.
Your answers will be treated in strict confidentiality. The results of the banking survey will be disclosed only at aggregate level
Please send your answers by **xx.xx.2009.**

For eventual further clarification needs, please indicate below the contacts of the person who completed the questionnaire**:**

Name……………

Position………………….

Bank……………………….

Email address:………………..

Tel/Fax………………..

Thank you for participating in this survey!

IV. Questions

A. Qualitative Impact Assessment

Bank of Albania is seeking to develop the regulatory framework on capital adequacy by improving the credit risk methodology and introducing the operational risk methodology for banks when calculating the capital requirements.

The Basel Committee on Banking Supervision for credit risk permits banks a choice between two broad methodologies for calculating their capital requirements, the Standardized Approach or the Internal Ratings-based Approach, while for operational risk, are proposed three methods: (i) the Basic Indicator Approach, (ii) the Standardized Approach and (iii) Advanced Measurement Approaches (AMA). For the operational risk banks are encouraged to move along from the spectrum of available approaches [starting from (i)] as they develop more sophisticated operational risk measurement systems and practices.

For a deeper understanding of the Standardized Approach for calculating capital requirementsfor credit risk, and the Basic Indicator for operational risk, please read the note in the Annex, or the comprehensive version of the new capital framework of Basel II (http://www.bis.org/publ/bcbs128.htm)

Given the current status of development of the banking activity and the directives of the Committee, Bank of Albania for credit risk methodology will update the current credit risk methodology with the latest guidelines as provided by the Basel Committee on Banking Supervision in the **Simplified Standardized Approach** and will introduce the **Basic Indicator Approach** on operational risk.

We would very much appreciate if you could validate our assessments by ticking in the respective boxes[2]. In case you do not agree with the stated impact/rational, please state there your reasons.

Regulated firms

	Impact	Comments	Validation/ Comments	Rejection/ Comments
Costs	**Higher**			
One-off	**Higher**			
Operational	+	The modifications in the CA framework will require training of the (i) technical staff (ii) high strategic management staff and potential revisions in the strategy		
Infrastructure	+			
Accounting and reporting	+	The modification of the CA framework will require changes in the methodologies of calculation of capital requirements to credit and operational risks		
Other	+	Some banks might need to add capital in order to		

[2] **Legend**: + increase
- decrease
= no effect

		comply with the increased capital adequacy requirements. Other extra costs related to the modification of the credit risk methodology and the first time implementation of the operation risk methodology		
On going	**Lower**			
Human resources	+	Increased complexity in of the prudential reporting framework and in a better risk management will generate a growth in the time allocated to this activity.		
Benefits	**Higher**			
Additional products / additional business	=	No direct impact on the business strategy.		
Cost saving / + revenues	+/=	Better coverage of banking activities - credit and operational risk with capital, with little effect on cost savings.		
Equity requirements	=/+	Banks will have to account for the operational risk. Some banks might have already considered operational risk, or more sophisticated credit risk methodologies for capital requirements, based on their parent bank / group requirements. For some of the banks, introducing the operational risk might ask for an increase in the capital.		
Total impact	**Higher costs and Higher benefits**	**Higher costs during the implementation process, and higher long run benefits**		

Consumers

	Impact	Comments	Validation/ Comments	Rejection/ Comments
Costs	**Slightly lower costs**			
Higher risks	-	Safer banking system, would reduce risk / increase protection for depositors and investors		
Higher prices	+/=	The additional one off costs could be reflected on the prices (cost transfer from the banks), but no significant effect.		
Lower quality of service	=	No direct effect		
Benefits	**No effect**	No direct effect		
Better choice	=			
Price reduction	=			
Improved access	=			
Total impact	**Lower costs**	**Lower costs as consequence of a better capitalized and hedged banking activity.**		

Authorities

	Impact	Comments	Validation/ Comments	Rejection/ Comments
Costs	**Higher**			
One-off	+	Higher costs of the Banking Supervision Authority related to the drafting, enactment and implementation the modified regulations. Higher costs related to the training of the supervisors and/or external assistance.		
On going	+			
Direct	+	The supervision process will be more complex		
Indirect	=			
Benefits	**Higher**			
Statutory goals	++	The banking supervisory authority accomplishes its statutory obligations of ensuring the financial stability.		
Increase income to state budget	=	No direct effect		
Others	=	No direct effect		
Total impact	**Higher costs and higher benefits**	**One-off costs related to the process of new regulations, but the benefits are much higher.**		

Summary of CBA

Stakeholders	Costs	Benefits	Total
Regulated firms	Higher	Higher	Higher
Consumers	Slightly lower	No effect	Lower
Authorities	Higher	Higher	Higher
Overall economy			More benefits Some costs

B. Questionnaire

B1. Regulatory Capital:

The guideline on "On bank's regulatory capital", issued by the Bank of Albania, presents the methodology for calculating the bank's regulatory capital, which constitutes the numerator of the adequacy ratio.

1. In addition to the methodology presented by BoA, does your institution apply, for internal purposes, any other methodology to calculate the regulatory capital?

Yes ☐ Under implementation process ☐ No ☐

2. In the Annex of this questionnaire you will find an excel spreadsheet **(Regulatory Capital)** with the algorithm (map of items) for the Standardized Approach for the calculation of the regulatory capital

   a. If your institutions has already adopted this approach:
      i. Please assess the divergences, if any, that the approach as developed by the SPI Secretariat / PWG might have compared with the one as developed by your institution. Please list these divergences.
      ii. Please use the attached spreadsheet to calculate the regulatory capital.

   b. If your institution does not apply this approach:
      i. Please use the attached spreadsheet to calculate the regulatory capital.

B.2 Credit Risk

The regulation on "Capital Adequacy", presents the calculation methodology for the total minimum capital requirements for credit risk.

1. In addition to the requirement as presented by Bank of Albania, does your institution apply, for internal purposes, any other methodology to calculate the capital requirements for credit risk?

Yes ☐ Under implementation process ☐ No ☐

2. If the option "Yes" or "Under implementation process" is selected, please state the methodology used:

   a. Simplified Standardized Approach
   b. Standardized Approach;
   c. Internal Ratings-based Approach.

If No, please pass to question 7.

3. The methodology used was developed internally in your institution, or was adopted as developed by the parent company? Please select one of the options bellow.

   a. Developed internally the methodology;
   b. Adopted from the parent company.

4. In the case that the methodology was internally developed:

   4.1 How long was the process of transposition? ______month(s)

   4.2 How many persons were involved in the process? ______

5. In the case that the methodology was adopted from the parent company:

   5.1 How long was the process of transposition? ______month(s)

   5.2 How many persons were involved in the process? ______

6. Did your institution have to make significant changes in the reporting system to reflect the new methodology on credit risk?

   a. no significant changes
   b. some changes
   c. significant changes

7. In question 2 you said that your institution does not apply any other, extra, methodology to calculate the for internal purposes capital requirements for credit risk. What are the main reasons that your institution is not applying additional methods?

   a. According to our experience, the capital requirements set by BoA cover for the risk profile of the institution;
   b. We have faced some difficulties during the process of transposition;
   c. Other (please specify)

8. Have you ever planed to adopt and apply any of the methodologies as proposed by Basel II / the EU Directive 2006_48_EC?

   Yes☐ No☐

9. If Yes;

   a. Which methodology are you planning to apply? ____________
   b. When do you plan to start working on the transposition process? ______ year

10. If your Institution is using the Simplified Standardized Approach and / or the Standardized Approach:

   a. Can your please provide the strategy you followed to adopt this methodology?

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   b. Can you please provide the algorithm (map of items) your institution has set for the calculation of capital requirements?

11. In the Annex of this questionnaire you will find an excel spreadsheet **(Credit Risk)** with the algorithm (map of items) for the Standardized Approach, Credit Risk, for the calculation of the Risk Weighted Assets

   a. If your institution has already adopted this approach:
      i. Please assess the divergences, if any, that the approach as developed by the SPI Secretariat / PWG might have compared with the one as developed by you institution. Please list these divergences.
      ii. Please use the attached spreadsheet to calculate the capital requirements for credit risk.

   b. If your institution does not apply this approach:
      i. Please use the attached spreadsheet to calculate the capital requirements for credit risk

B.3 Operational Risk

1. Does your institution apply any methodology to calculate the for internal purposes capital requirements for operational risk?

Yes☐ Under implementation process ☐ No ☐

2. If the option "Yes" or "Under implementation process" is selected, please state the methodology used:

   a. Basic Indicator Approach;
   b. Standardized Approach;
   c. Advanced Measurement Approaches

If No, please pass to question 7.

3. The methodology used was developed internally in your institution, or was adopted as developed by the parent company? Please select one of the options bellow.

a. Developed internally the methodology;
b. Adopted from the parent company.

4. In the case that the methodology was internally developed:

4.1 How long was the process of transposition? ______month(s)

4.2 How many persons were involved in the process? ______

5. In the case that the methodology was adopted from the parent company:

5.1 How long was the process of transposition? ______month(s)

5.2 How many persons were involved in the process? ______

6. Did your institution have to make significant changes in the reporting system to reflect the new methodology on credit risk?

a. no significant changes
b. some changes
c. significant changes

7. In question 2 you said that your institution does not apply any methodology to calculate the for internal purposes capital requirements for operation risk. What are the main reasons that your institution is not applying capital charges for operational risk?

a. According to our experience, the capital requirements set by BoA cover for the risk profile of the institution;
b. We have faced some difficulties during the process of transposition;
c. Other (please specify)

8. Have you ever planed to adopt and apply any of the methodologies as proposed by Basel II / the EU Directive 2006_48_EC?

Yes☐ No☐

9. If Yes;

a. Which methodology are you planning to apply? ____________

b. When do you plan to start working on the transposition process? ______ year

10. In the Annex of this questionnaire you will find an excel spreadsheet **(Operational Risk)** with the algorithm (map of items) for the Basic Indicator Approach, Operational Risk.

a. If your institutions has already adopted this approach:

i. Please assess the divergences, if any, that the approach as developed by the SPI Secretariat / PWG might have compared with the one as developed by you institution.

ii. Please use the attached spread sheet to calculate the capital requirements for operational risk.

b. If your institution does not apply this approach:

i. Please use the attached spread sheet to calculate the capital requirements for operational risk

After the simulation

Currently the capital adequacy ratio is 12%. Supposing that:

a. the ratio of minimum capital requirements will remain the same[3];

b. the level of "Total of risk-weighted assets" as calculated by the current methodology on Capital Adequacy Regulation will not change;

11. Does your bank still remain capitalized? Yes ☐ No ☐

12. If No, can you assess:

a. How much time is necessary to gather the necessary capital?

b. What types of costs and how much will be the compliance costs?

[3] The formula to calculate Minimum Capital Requirements with the inclusion of Operational Risk becomes:
Total Capital / (Credit Risk + Operational Risk) = 12 % where Credit risk = Risk Weighted Assets; Operational Risk = Capital charge * 12.5 .

Annex

The Basel II Standardized Approach

The Basel II capital framework agreed to by the banking authorities of the world's leading economic countries, envisions a three pronged approach to enhancing the safety and soundness of financial institutions:

(i) new capital standards;

(ii) enhanced supervision; and

(iii) increased market discipline through additional public disclosures.

Most of the attention has focused on the first pillar, the new capital standards. With respect to capital, the Accord permits banks to adopt one of two methods for risk weighting of assets: the "standardized approach" or the "internal ratings based" (IRB) model.

This note will provide a summary and explanation of the standardized approach for credit risk and Basic Indicator Approach for operational risk, as described in the international accord.

1. Standardized Approach to Credit Risk

The Standardized Approach increases the risk sensitivity of the capital framework by recognizing that different counterparties within the same loan category present far different risks to the financial institution lender. Thus, instead of placing all commercial loans in the 100 percent risk weight basket, the Standardized Approach takes into account the credit rating of the borrower.

The credit rating must be assigned by an external recognized rating agency that satisfies certain criteria described in the Accord (the credit rating agency must be independent, the methodology used should be publicly available, and the rating should be rigorous, systematic and subject to some form of validation).

1.1. Standardized Approach to Balance Sheet Items

The following examples illustrate the enhanced alignment between risk and capital under the Standardized methodology:

- **Claims Against Sovereign Governments and Central Banks**

Assets that represent claims against Governments or Central Banks are risk weighted according to the risk rating assigned to that Government by recognized Export Credit Agencies. The correlation between credit rating and risk weight is as follows: [Basel I assigns claims against OECD member countries to the 0% basket].

Rating	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	Below B-	Unrated
Risk weight	0%	20%	50%	100%	150%	100%

- **Claims on Banks and Securities Firms**

Countries are given two options, but must apply the same option to all banks within their country. The first option risk weights claims on banks and securities firms at one risk weight category below the country's risk weight. The second option is to risk

weight banks and securities firms based on an external credit assessment score, and with lower risk weights for short term obligations (originally maturity of 3 months or less). [Basel I assigns a 20 percent basket to claims on banks and securities firms organized in OECD member countries].

- **Claims Against Corporations**

Assets that represent claims against corporations (including insurance companies) are assigned a risk weight according to credit rating assigned to the corporation or the asset.

For unrated exposures, the risk weight is 100 percent. For rated exposures, the following chart correlates the credit rating and the risk weight:

Rating	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	Below B-	Unrated
Risk weight	20%	100%	100%	100%	150%	100%

- **Retail Exposures (Loans to Individuals and Small Businesses)**

Loans to individuals and small businesses, including credit card loans, installment loans, student loans, and loans to small business entities are risk weighted at 75 percent, if the bank supervisor finds that the bank's retail portfolio is diverse (for example, no single asset exceeds 2 percent of the entire retail portfolio, and no loan exceeds 1 million Euro (approximately $1.3 million). [Basel I – retail and small business loans are placed in the 100 percent risk weight basket].

- **Residential Real Estate**

Prudently written residential mortgage loans are risk weighted at 35 percent. [Basel I residential mortgage loans are placed in the 50 percent basket.]

- **Commercial Real Estate Loans**

In general, loans secured by commercial real estate are assigned to the 100 percent risk basket. However, the Accord permits regulators the discretion to assign mortgages on office and multi-purpose commercial properties, as well as multi-family residential properties, in the 50 percent basket subject to certain prudential limits. [Basel I – commercial real estate assigned to the 100 percent basket]

1.2. Standardized Approach to Off-Balance Sheet Items

Off-balance sheet items, such as loan commitments and guarantees, expose a financial institution to credit risk. Both Basel I and the Standardized Approach recognize this credit risk by converting the off-balance sheet item into an on-balance sheet asset, than placing the asset into the appropriate risk basket.

The following examples illustrate Standardized Approach to these conversions:

- **Commitments**

- Commitments, such as an open line of credit, that have an original maturity of one year or less are converted to an on-balance sheet asset by using a conversion factor of 20 percent. Longer term commitments are transferred by using a conversion factor of

50 percent. [Basel I – commitments of one year or less are not converted to on-balance sheet assets. Longer term commitments are converted using a 50 percent conversion factor.]

- **Securities Lending**

Securities lent or the posting of securities as collateral are converted to on-balance sheet assets using a 100 percent conversion factor.

- **Letters of Credit**

Short-term self-liquidating trade letters of credit collateralized by the goods being shipped are converted using a 20 percent factor. [Basel I – same]

1.3. Credit Risk Mitigation

Credit risk mitigation techniques, such as third party guaranty, are generally not recognized under Basel I. The Standardized Approach greatly enhances risk sensitivity by recognizing many more credit risk mitigation techniques. For example:

- **Collateral**

Banks have two options for recognizing collateral for capital purposes. Under the simple approach, the bank may adjust the risk weight for its exposure by using the appropriate risk weight for the supporting collateral instrument. The collateral must be marked-to-market and revalued at least every six months. A risk weight floor of 20 percent will also apply, unless the collateral is cash, certain Government securities, or certain repo instruments. Eligible collateral includes corporate debt instruments rated BBB- or higher, equity securities traded on a main index, and Government instruments.

Under the second option, or "comprehensive approach," the value of the exposure is reduced by a discounted value of the collateral. The amount of the discount varies with the credit rating of the collateral. The Standardized Approach provides for the amount of the discount. For example, collateral consisting of A+ rated debt with a remaining maturity of five years or less, would be discounted by 6 percent. Alternatively, the regulatory agencies may permit the banks to calculate their own discounts based on internal models that take into account market volatility, historical performance, and foreign exchange rate movement. [Basel I recognizes only limited types of collateral, such as cash, Government securities, and Government agency securities].

- **Netting**

Where banks have legally enforceable netting arrangements they may calculate capital based on the net credit exposure. [Basel I recognizes bilateral netting agreements for derivative contracts]

- **Guarantees and Credit Derivatives**

Guaranties and credit protection derivative contracts that provide equivalent protection are recognized provided certain conditions are met (e.g. the guarantee must be direct, explicit, unconditional and irrevocable). The risk weight of the guarantor is substituted for the risk weight of actual counterparty. Guarantors and credit protection sellers must have a credit rating of at least A-. [Basel I – guarantees issued by OECD Governments and GSEs, and by banks and securities firms chartered in OECD countries are recognized].

2. Operational Risk

The Basel II Accord has three methods for determining a capital charge for operational risk: (i) the Basic Indicator Approach; (ii) the Standardized Approach; and (iii) the Advanced Measurement Approach (AMA). A bank may use the Standardized Approach for credit risk, and the AMA for operational risk.

2.1. Basic Indicator Approach

Under this approach the operational risk capital charge is set at 15 percent of the institution's net positive annual gross income, where gross income is determined pursuant to adjustments detailed in the Accord.