

# Convergence Romania Financial Sector Modernization

Special Projects Initiative Public-Private Steering Committee



## TERMS OF REFERENCE

### **Project: Methodological aspects of stress test for banks covering households and firms exposures**

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**Technical Anchor (TAN): Convergence Program**

### **I- Background**

Stress tests permit a forward-looking analysis and an uniform approach to identifying potential risks, generated by exceptional but plausible shocks, to the banking system as a whole, but also to individual institutions. System-wide stress tests can complement stress tests conducted by individual institutions, by acting as a cross-check for their own analyses and by identifying weaknesses in data collection, reporting systems, and risk management processes and practices. The process itself can help to increase expertise in risk assessment by supervisors and the institutions involved, and promote cooperation and a broader understanding of risks by different stakeholders.

Financial institutions and authorities have long recognized the strong interdependencies between the profitability and balance sheet soundness of financial intermediaries and the creditworthiness of households and firms. A stress test covering households and firms exposures could offer important indications on their capacity to withstand macroeconomic shocks (such as sharp movements in interest rates, exchange rates, GDP, employment) and how their debt servicing capacity could affect the banking sector.

At present, the National Bank of Romania and credit institutions do not have comprehensive and homogenous models to stress test the households and corporate sectors credit exposures. So far, NBR has developed a logit model that estimates the probability of default for the corporate sector, which is not integrated into a model that stress tests the entire financial system. Likewise, NBR is in the process of gathering data concerning the household sector in order to develop a model that reveals the links between the ability of households to service debt (i.e. probability of default) and the financial system. Such models could also help the individual banks to strengthen evidence supporting loan loss and general reserve provisioning, and credit risk strategies to reduce credit risk cost. No information is available on whether such models are developed by local financial institutions.

## **II - Project Objective**

To prepare a proposal for risk scenarios, methodologies and data points that would inform a stress testing exercise of banks households and corporate sectors exposures that could be conducted both at the system-wide level by NBR, and by individual banks, based on a commonly agreed stress test methodology.

## **III – Intended Strategy**

The project management group (Project Owner, Project Manager, Deputy Project Manager, supported by the SPI Secretariat) acts based on the mandate received from the SPI Committee to prepare a proposal for risk scenarios, methodologies and data points that would inform a stress testing exercise of banks households and corporate sectors exposures.

The PM/DPM/TAN/SPI Secretariat will start by building a common understanding of the goal of the project. In this respect, the NBR will start by outlining the status of designing a stress testing model for banks covering household and firms exposures, outlining the methodology (data, model, scenarios) used and the criticalities of this exercise (i.e. data availability and integration issues, drawbacks of econometric methods, problems in choosing the hypothesis for stress-testing, issues in testing the model, etc.).

Based on the NBR input, the PM/DPM/TAN will outline the main components of the project (i.e. data sources, macroeconomic framework, modeling, scenarios, etc.) and will decide on the PWG members areas of contribution. If necessary, the elements of the stress testing for companies will be outlined separately from the stress testing for households. A brief description of these elements will be presented to the PO for review and endorsement.

PM/DPM (with TAN assistance) will assemble a small group of analysts to develop the project methodology. The project methodological specifications (model, data, scenarios, etc.) will draw from the following inputs:

- a. a technical advice from a central bank that uses stress testing models for banks covering households and firms exposures provided at the request of the NBR;
- b. a document prepared by banks, outlining their own and/or their mother bank experience in designing stress testing models for banks covering household and firms exposures.

The PWG will agree on the project methodological specifications. Based on the project methodology, the PWG will agree on a set of risk scenarios, which will be mapped into a format that is usable for an analysis of financial institutions' balance sheets and income statements, at system-wide and individual institutions level. The SPI Secretariat will collect the needed data from banks and feed them into the model.

PM/DPM (possibly with TAN assistance) test the model at the system-wide level and prepare a document outlining the findings of the stress test at system-wide level and a set of instructions for use by individual banks. The PWG will discuss the paper and will

prepare a summary document for SPI Committee consideration, highlighting the implications for industry risk strategy and management.

#### **IV- Methodology: from kick off to the accomplishment of the project**

***Preparation of PWG 1<sup>st</sup> meeting (PM/DPM and SPI Secretariat)*** - November 15 – February 12

PM/DPM will ask NBR to provide a document on the status of designing, the methodology and the criticalities of the stress testing models for banks covering households and firms exposures.

PM/DPM with TAN assistance will prepare a brief description of the main components, outlining the PWG possible contribution and send it to PO for endorsement.

PM/DPM will invite banks to share their or their parent banks' experience in stress testing.

On this basis, PM/DPM/TAN with a small group of analysts will draw up the project methodological specifications.

PM/DPM/SPI Secretariat will send to the PWG members the SPI Committee Mandate Letter together with the following documents, which will constitute a background to the PWG work, before the PWG 1<sup>st</sup> meeting:

1. the project methodological specifications;
2. draft TORs prepared by SPI Secretariat and endorsed by PO and PM/DPM.

***PWG 1st meeting*** - February (12 - 16)

1. PWG members discuss and agree on the project methodological specifications;
2. PWG members discuss and agree on a set of risk scenarios;
3. PM/DPM establish **homework** for PWG members: to map the risk scenarios into a format usable for an analysis of the balance sheet and income statements at individual level and at the system level.

The individual contributions will be sent to the PM/DPM and TAN/SPI Secretariat. SPI Secretariat will prepare a centralized document to be circulated before the PWG 2<sup>nd</sup> meeting.

PM/DPM with TAN assistance will discuss and agree on the format usable for analysis. SPI Secretariat will send to banks requests for data, will collect data and feed them into the model.

PM/DPM will test the model at the system – wide level and draw up a document outlining the findings of the stress test at system-wide level and a set of instructions for use by individual banks.

***PWG 2nd meeting*** - April (16 - 20)

1. PWG members discuss the document outlining the findings of the stress test at system-wide level and a set of instructions for use by individual banks.

2. PWG members will start drafting the summary document for SPI Committee consideration, highlighting the implications for industry risk strategy and management.
3. **Homework:** PM/DPM will draft the summary document.

**PWG 3rd meeting** - May (14 - 18)

1. PWG members discuss and agree on the summary document.

**V- Output**

*PWG 1<sup>st</sup> meeting*

- PWG members discuss and agree on the project methodological specifications;
- PWG members discuss and agree on a set of risk scenarios;
- PWG members send individual contributions on the format usable for an analysis of the balance sheet and income statements at individual level and at the system level.

*PWG 2<sup>nd</sup> meeting*

- PWG members discuss the document outlining the findings of the stress test at system-wide level and a set of instructions for use by individual banks.
- PWG members will start drafting the summary document for SPI Committee consideration, highlighting the implications for industry risk strategy and management

*PWG 3<sup>rd</sup> meeting*

- PWG members discuss and agree on the summary document.

**VI - Project Team**

The team will be composed of:

- Banks:
  - 3 experts with experience in designing (stress testing) models;
- NBR:
  - 2 experts with background in macroeconomic modeling and design of stress testing models;
- MOPF
  - 1 expert.

The team will be chaired by the Project Manager and co-chaired by the Deputy Project Manager.

PM/DPM have to report to PO at least after each meeting of the PWG.