



EUROPEAN CENTRAL BANK
BANKING SUPERVISION

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Lessons learnt from recent stress test exercises in the euro area

International Regulators: Lessons
Learned from Recent Exercises

Panel discussion – 4th Annual Stress
Test Modeling Symposium

Boston 25 – 26 June 2015

The euro area stress testing framework

Microprudential exercises

Stress tests within the Supervisory Review and Examination Process (SREP)

- Banks' internal model results
- Supervisory benchmarks

EU-wide stress test coordinated by EBA

- 2014: constrained bottom-up (hybrid) exercise

Stress tests for financial stability purposes

- Typically top-down exercises

- Stress testing is a **key element of the SSM supervisory toolbox**, which is used in different exercises. (Both regular and ad-hoc)
- Focus today on the **role of the stress test part of the SREP and on the EBA stress test.**

Bottom-up vs Top-down vs Hybrid exercises

Bottom-up exercise

- Banks compute stress test results using their own internal models
- Depending on the internal model it can use granular data or be carried out based on portfolio-level / aggregated information

Top-down exercise

- Is carried out by the supervisor
 - Based on data provided by banks (ad-hoc or regular reporting)
 - Typically using portfolio-level / aggregated information

Constrained bottom-up / hybrid exercise

- Common stress scenario and methodology provided by supervisor
- Banks compute (bottom-up) stress test results using their own internal models
- Supervisor runs (top-down) stress test in order to challenge banks' internal results and to provide benchmarks for banks
- „Comply or explain“ in case of material differences between bottom-up and top-down results and compliance with methodology

Stress testing in the SSM SREP

- **Key purpose of the SREP**: ensure that institutions have adequate internal processes as well as sufficient capital and liquidity to ensure a sound management and coverage of their risks.
- **Different elements** including a business model and profitability assessment and a risk-by-risk assessment considering capital and liquidity.

Block 1: Risk assessment system (banks' risk levels and controls)

Block 2: Comprehensive review of banks' own assessment of capital and liquidity positions (ICAAP/ILAAP)

Block 3: Review of banks' own assessment of capital and liquidity needs **considering also supervisory stress test results**

EBA coordinated EU-wide stress test

- **Goal:** Assess the resilience of financial institutions to adverse market developments, as well as contribute to the overall assessment of systemic risk in the EU financial system.
- Comparison with the SSM SREP:
 - It is **not limited to the euro area** supervisory authorities
 - It is coordinated by **the European Banking Authority**
 - It relies on **common EU-wide scenarios and methodology**
 - **Sample of banks** covered “Significant Institutions” in 2014 and “border-line” institutions for significance (130 institutions in total in euro area)
 - Competent authorities responsible for **quality assurance**, supported by EBA
 - Results are **published**

Link between EBA stress test and SREP

- EBA EU-wide stress test has always received strong market attention as a stand alone exercise.
- It is also **linked to the SREP**, as the risks and capital needs it identifies are **incorporated** in the overall supervisory assessment of the SSM banks.
- This approach was implemented for the first time in 2014
 - Results of the Comprehensive Assessment (comprising both an asset quality review and the EBA stress test) were incorporated as a floor in SREP decisions.

The EBA 2014 EU-wide stress test – Methodology and Quality Assurance (1)

- **Methodological guidelines** published by the EBA
- **“Hard” methodological constraints** on banks’ projections:
 - Cap on Net Interest Income and floor on RWA
 - Floor on cost of funding and cap on pass-through to lending rates
 - Haircut on sovereign exposures
 - Transition matrix for the risk-weights of securitized products
- **Centralized Q&A** process at the EU level
- **Quality Assurance manual** was communicated to banks
 - Red Amber Green (RAG) automated checks of banks’ compliance with the EBA methodology (and of the reliability of banks’ projections)
 - Description of the evidence required for granting exemptions

The EBA 2014 EU-wide stress test – Methodology and Quality Assurance (2)

The strong Bottom-Up (BU) component of the stress test was complemented by a Top-Down (TD) challenge:

- **BU results** are provided by banks, following EBA methodological requirements
- **Benchmarks for credit risk parameters** were shared with banks (particularly important for smaller banks)
- **Quantitative** assessment: ECB developed a TD model, based on banks' aggregate data, to challenge banks' results
- **Qualitative** assessment: banks' projections and explanatory notes were reviewed by direct supervisors

“Comply or explain” approach for banks whose results deviated significantly from the TD estimates.

Lessons from the EBA 2014 EU-wide stress test

- **Data management is key**
 - Lots of time spent in sorting out data quality issues
 - External factors (new templates, tight timeline), but also possible weaknesses in data infrastructure capacities on the bank side played a role
 - Difficult to find long, comparable and granular time series for the calibration of supervisory models in Europe
- **Reliable and sufficiently granular reporting** can improve data availability and data quality in the medium / long run.
 - ITS supervisory reporting framework plays important role (and will be improved by the forthcoming EBA Transparency Exercise in 2015)
- **Dynamic balance sheet is challenging**
 - In theory, could provide more relevant results for the SREP,
 - Experience with banks under restructuring plan posed many challenges
 - Difficult to design common rules to accommodate all relevant aspects of individual restructuring plans
 - Extensive recourse to expert judgment needed

Constrained bottom-up (hybrid) approach seems to be most promising way at least in the near future

- It **can most effectively leverage** on banks' models that are tailor-made to their specific risks
- It **combines the advantages** of the Bottom-up approach (precision, flexibility) with those of the Top-down (comparability, much stronger supervisory control)
- It overcomes some practical constraints with a full reliance on a “pure” Top-down approach
 - Data restrictions restrain the performance of a Top-down model
 - Bottom-up results are required, as the assessment of banks' stress testing practices is important for the overall supervisory assessment.
- It **requires clarity from supervisors** regarding i) the description of the methodological constraints on Bottom-up results and ii) their expectations of banks' explanations in case of divergent results

Links between the SREP and the EBA EU-wide stress test should be strengthened

- SREP and EBA EU-wide stress test can **complement each other**, as their results inform the supervisory assessment in both directions:
- SREP review can provide useful **insights** for the EBA EU-wide stress test as regards the **quality of banks' internal practices and risk management**
- EBA stress test provides a **quantitative assessment of banks capital under stress conditions**
- **Complementing the EBA stress test by including additional risks** that are part of SREP but have not yet been included in the EBA exercise should be considered after careful reflection of pros and cons
 - Example: conduct risk, liquidity