RECOUPTMENT CAPACITY OF THE EUROPEAN BANKING SECTOR TO THE SRF AND THE CB

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Introduction

• Resolution Case(s) → Resolution Tools

• Single Resolution Fund (SRF): 52 bn EUR

• If SRF not sufficient → Common Backstop (CB): Size of CB = size of SRF

• Common Backstop provided by the ESM: Loan (3 or 5 years maturity)

• Recoupment Capacity: “Can the banking sector repay the CB and the replenishment of the SRF within the foreseen timelines?”

• Repayment capacity: Recoupment capacity plus other cash flow sources

• Joint Project ESM and SRB

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Building blocks: Recoupment capacity

**Macroeconomic scenarios**
- Baseline scenario
- Adverse scenario

**Quantitative approach**
- Econometric model based items
- Assumption based items

**Contributions**
Allocation of the ex-post and ex-ante contributions to refill the SRF and repay the common backstop

**Projections**
Projection of main banks’ BS and P&L items over 3 to 5-year horizon

**Contagion effect**
Multiple simulated shocks and distress propagation

**Final assessment**
Impact on income generation and capacity of banks to make contributions to the SRF within a given period of time (3Y and 5Y)
### Profit and Loss projections

The **quantitative approach** is founded on **econometric model-** and **assumption-** based items.

#### Econometric Model Based Items

To estimate the econometric model based variables, **macroeconomic** and **financial** explanatory variables were selected according to their economic relevance and following existing literature.

- **Variables estimated:**
  - Net Interest Income
  - Fee & Commissions
  - Loan Impairment Charges
  - NPL ratio

- **Addressing non-linearities:** panel quantile regressions with bank fixed effects.

- **Addressing business model specificities:**
  Regressions are run by bank type (GSIB vs non-GSIB according to EBA classification)

#### Assumption Based Items

- Operating Expenses
- RWA
- Dividend distribution
- Tax Rate

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Contagion

Simulating shocks and tracking domino effects to the other financial institutions within the financial system.

**CONTAGION MODEL**

- Financial crises are modelled through a micro simulation portfolio model: Systemic Model of Bank Originated Losses (SYMBOL). SYMBOL incorporates contagion effects using a bank by bank correlation matrix.
- We apply the SYMBOL model with a correlation matrix based on banks’ equity returns (time-varying).
- Correlation Matrix decomposed into Common Factors: Faster simulation

**SHOCKS**

- Selection of runs depending on use of Common Backstop:
  - Safety Net implementation
- Losses attributed to final assessment
  - Defaulted banks: capital surplus: max(0,TRC - 10.5%RWA)
  - Non-defaulted banks: SYMBOL simulated loss

The outcome are simulations of a distressed banking system with banks that are failing/likely to fail.

The outcome are losses that reduce the banks’ capital levels
Scope & Correlation Matrix

- Public available data
- Scope: 107 Institutions
- Correlation matrix estimated on stock returns
  - Circa 50 banks are listed
  - Non-list banks: Average correlation between country index and listed banks
SYMBOL OUTPUT

- Circa 72 million runs simulated

- 300,000 runs with a simulated default: Loss > Total Regulatory Capital (TRC)

Aggregated loss vs Individual loss
Safety Net Example: Use of CB for 25 bn
Losses generated by SYMBOL

Simulated losses (mn EUR)
Final Assessment: Integration of building bocks

- **BANKING RESOLUTION**
  - Financing Support from SRF (Common Backstop)

- **MACRO SCENARIOS** (baseline and adverse)

- **QUANTITATIVE MODELS**

- **BANK LEVEL DATA / MARKET CONSSENSUS**

- **Individual banks’ P&L and Balance Sheet items projections (3Y / 5Y)**

- **PROJECTIONS**
  - Impact analysis of the contagion effects on capital
  - Ex-ante Contributions
  - Ex-post Contributions

- **FINANCIAL RATIOS**
  - Scenario analysis contributions

- **Impact analysis of the total contributions on the Capital and Profit projections**

- **Analysis of potential deferrals (DR 2016/778) and/or impairments over the life of the ESM loan**

- **Final recoupment capacity under baseline and adverse scenarios**

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Conclusion

• Different application of SYMBOL within the Recoupment capacity

• Changes to SYMBOL model
  • Adjustment of correlation matrix & Common Factor simulation

• Difficulties related to the integration with other models (blocks):
  • Macroeconomics scenarios
  • Econometric forecast of P&L
  • SYMBOL losses
    • Timing of losses
THANK YOU!

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