Modeling loan loss provisions under IFRS 9 in the top-down solvency stress test of the Central Bank of Hungary - a discussion of the paper by Péter Lang and Martin Stancsics

Discussant: Monika Marcinkowska
Main findings
Main findings

• „The change in expectations due to an adverse shock has an immediate and sizable impact on loan loss provisions in contrast to the previous incurred loss approach. This might exacerbate the procyclical behavior of the banking sector”
Confirmation of previous observations/studies

• "cliff effects"

• "front-loading"

e.g. Z. Novotny-Farkas (2016), The Interaction of the IFRS 9 Expected Loss Approach with Supervisory Rules and Implications for Financial Stability

Confirmation of previous observations/studies

- Pro-cyclicality
Confirmation of previous observations/studies

- Conclusion: IFRS 9 alleviates the disadvantages of IAS 39, but the problems with provisioning are still significant
#2

General overview of the paper
General overview

- Impairment forecasting under stressed conditions – very important issue
- Good presentation of the stress-test framework
  - forecasting loan loss provisions and risk-weighted assets of each bank for each period of the stress test's time horizon conditional on the macroeconomic scenario
    - A versatile dynamic balance sheet framework
- Data
  - Non-financial corporate portfolio of the Hungarian banking system
    - Good granularity (1.5 mn contracts, 12.5 mn observations)
  - Transition probabilities estimated on contract-level database (Central Credit Information System + financial statement data from the National Tax and Customs Administration)
    - „the obligor-level estimation would seem more logical as the loans of a company usually default at the same time“ – not always true
  - Forecasts of macroeconomic variables based on the macroeconomic forecasting model of the Central Bank of Hungary
Monika Marcinkowska, Discussion of „Modeling loan loss provisions under IFRS 9 in the top-down solvency stress test of the Central Bank of Hungary” by Lang & Stancsics

General overview

- Stress scenario
  - Risk premium (t-1) 300 bps
  - Y-o-y difference of log real GDP (t-1) -5 pps
  - Y-o-y difference of log end consumption (t-1) -3 pps
  - Exchange rate depreciation since loan origination (per cent) (t-1) 15 pps
General overview

- Markov models
  - The same approach as in several other studies

e.g.

Jimmy Skoglund, Principal Product Manager, SAS and Wei Chen, Director of Stress Testing Solution, SAS Institute (2017), Forecast of forecast: An analytical approach to stressed impairment forecasting

Vaněk, Hampel (2017), The probability of default under IFRS 9: multi-period estimation and macroeconomic forecasting
#3

Limits of the research
Assumptions

- Assumptions for new loans originations
  - „banks disburse the same loans, at the same time of the year, to firms with the same characteristics as last year”
    - possible change of level in time?
    - possible change of structure over time?

- Assumption of LGD level
  - „For the LGDs, we employed our expert judgement, fixing the LGD at 40 percent for the baseline, and at 50 percent for the stress scenario”
    - different levels of LGD necessary
Some questions and suggestions
Further research
Stress test scenario

- Suggestions for other macroeconomic variables:
  - Unemployment rate
  - Interest rates
  - Loan rates
  - Inflation
  - Asset prices (esp. real estate)
  - Coverage ratio
  - Public debt
  - Credit / GDP
  - Credit growth
  - Risk-weighted assets
  - Capital market prices

Monika Marcinkowska, Discussion of „Modeling loan loss provisions under IFRS 9 in the top-down solvency stress test of the Central Bank of Hungary“ by Lang & Stancsics

Foglia (2009), Stress Testing Credit Risk: A Survey of Authorities’ Approaches

Louzis, Vouldis, Metaxas (2012), Macroeconomic and bank-specific determinants of non-performing loans in Greece: A comparative study of mortgage, business and consumer loan portfolios

Abid, Ouertani, Zouari-Ghorbel (2014), Macroeconomic and Bank-Specific Determinants of Household’s Non-Performing Loans in Tunisia: a Dynamic Panel Data
Procyclicality of provisions vs. capital buffers

- Does the countercyclical buffer mitigate the negative pro-cyclical consequences of IFRS 9 provisions?
- Which provisioning model works best with the CCyB?
- Necessary changes in credit risk models? (CRD/CRR vs. IFRS)

Jiménez, Ongena, Peydró, Saurina (2013), Macroprudential Policy, Countercyclical Bank Capital Buffers and Credit Supply: Evidence from the Spanish Dynamic Provisioning Experiments

Agénor, Zilberman (2015), Loan Loss Provisioning Rules, Procyclicality, and Financial Volatility

Agénor, da Silva (2017), Cyclically adjusted provisions and financial stability

Abad, Suarez (2017), Assessing the cyclical implications of IFRS 9 – a recursive model

ESRB (2017), Financial stability implications of IFRS 9

Prorokowski (2018), IFRS 9 in credit risk modelling
Monika Marcinkowska, Discussion of „Modeling loan loss provisions under IFRS 9 in the top-down solvency stress test of the Central Bank of Hungary” by Lang & Stancsics

Tax treatment

- The tax treatment of provisions
Liquidity

- Provisioning rules – impact on capital and liquidity

Monika Marcinkowska, Discussion of “Modeling loan loss provisions under IFRS 9 in the top-down solvency stress test of the Central Bank of Hungary” by Lang & Stancsics
Other issues

- Bank-specific characteristics
  - Different impact on different banks?
    - e.g. bank size, level of capitalisation...
Other issues

- Could this tool be used
  - to assess (verify) adequacy of banking provisioning models?
  - to investigate potential earnings management?
  - to monitor the alignment of IRB capital adequacy and ECL accounting?
Expected Credit Loss estimates of banks vary at least by a factor 4.
#5

Policy implications

Monika Marcinkowska, Discussion of „Modeling loan loss provisions under IFRS 9 in the top-down solvency stress test of the Central Bank of Hungary” by Lang & Stancics
Policy implications

- Change of accounting standards?
- Convergence of accounting principles and capital adequacy rules?
- Convergence of micro- and macroprudential tools?
Monika Marcinkowska, Discussion of “Modeling loan loss provisions under IFRS 9 in the top-down solvency stress test of the Central Bank of Hungary” by Lang & Stancsics

monika.marcinkowska@uni.lodz.pl