European Banks in the XXI century: are their Business Models sustainable?

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* The views expressed are those of the discussant and do not necessarily represent the official position of the EBA

Summary of the paper

Goal: Assess and compare the profitability (ROA) across business models and peer groups, and identify the risk factors driving this profitability

Data

- 77 banking groups from 15 countries (13 EZ + 4 UK)
- consolidated level
- 2006-2014

Analysis can be divided in 2two section:

i. Identification of BMs and PGs (clustering, incl. fuzzy clustering; Key Nearest Neighbour using SREP criteria)

ii. Assessment of profitability (cross section with BM dummies, pooling panel with BM and PG dummies) and identification of risk factors driving this profitability (dynamic panel regressions using GMM)

Main findings

- Profitability: Retail banks are the most profitable before the crisis and at the same time most hit by the crisis. Among these, retail domestic non-complex are the ones that were most hit by the crisis.
- Risk factors: Credit quality, sovereign risk and equity returns are factors that affect the profitability of Retail banks (link to real economy), while slope and yield of the interest rate curve are most important for the non-Retail ones (link to financial markets)

General remarks

- Relevant topic: for practical understanding of business models and their vulnerabilities.
- In the literature 2 approaches:
  - 1. BM as continuum,
  - 2. BM as discreet BM groups, and then using these groups for further analysis. In some cases, the grouping and the comparison of the groups is a goal on its own.
- In this paper 2nd approach taken: There is some loss of information, particularly the more subtle differences between the banks within one BM category. Nevertheless, such categorisation is important, particularly for impact assessment and proportionality analysis. As currently in Europe there are no clear and common definitions of business models, due to fragmentation, and significant differences between the banking sectors of the Member States, this task still remains very challenging, but nevertheless welcome.

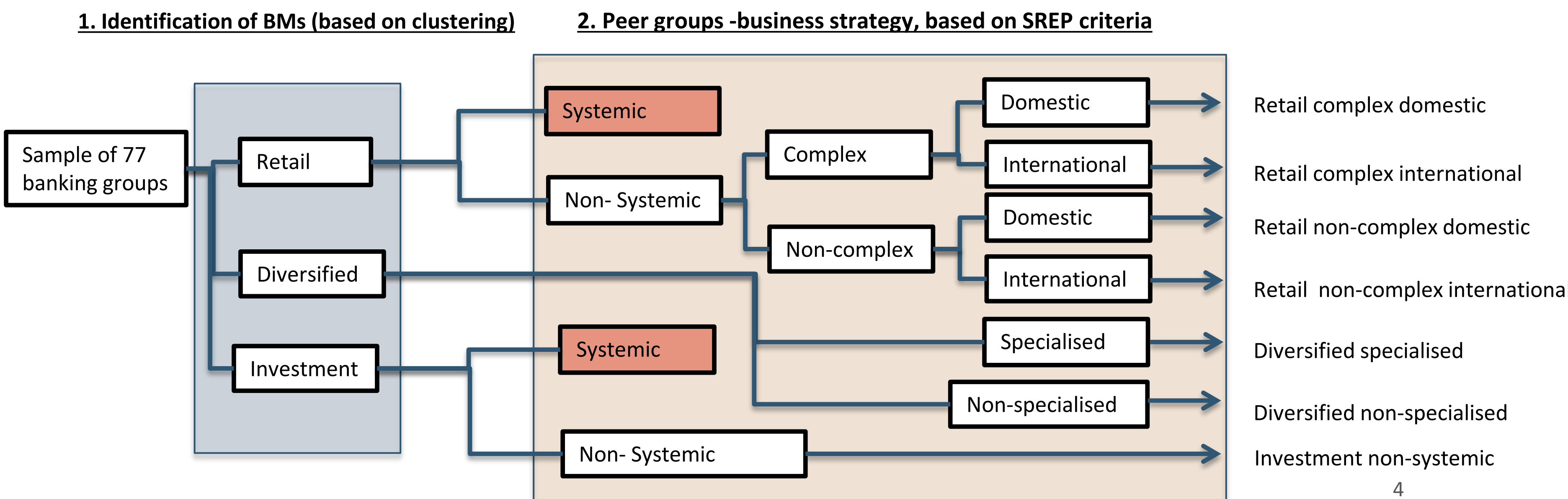
Comments on grouping methodology

1. BM clustering

- Data is at consolidated level – difficult to distinguish more specialized business models → BM as continuum (based on factor analysis) may be more appropriate, or at least for comparison.
- Novelty – fuzzy clustering, gives different BM attributions in 11% of cases. ROA, cost efficiency across BMs more homogeneous in case of fuzzy. Is 11% significant? What are the institutions their characteristics? Why choose fuzzy over hard?
- Descriptive statistics of the BMs structural indicators missing - to understand the within BM group differences and dispersion between banks.

2. PG based on SREP criteria

- Peer groups: it depends on the purpose of the analysis. SREP uses 4 categories for intensity of supervision (size, structure and internal organisation, and the nature, scope and complexity of institutions) → different purpose, and larger set of criteria.
- More justification of various choices needed to interpret the results: Why diversified banks were further separated based on specialisation, while retail, based on complexity and geographical coverage?



Comments on assessment of profitability and risk factors

- The authors apply regression for each year and then pool them for 2 separate periods: what about pooling all observations together, then add dummy for pre-post crisis. The dummy can interact with BM variable to allow for differentiated response to the crisis across BMs.
- Dynamic panel – More discussion required on what are the risk factors that impact bank profitability, what are the expected signs for their coefficients, and how they have been captured
- Could use retail and non-retail in the same regression to be able to compare the two BMs.
- Try regress the indicators on the variables that were used as instruments (i.e. BM is a continuum) to compare with the results based on discreet classification
- Other drivers to consider: income diversification, industry concentration

Dynamic panel: ROA regressed on (using GMM to control for endogeneity issues)

$$RoA_{i,t} = \alpha + \mu_i + \phi RoA_{i,t-1} + \beta X_{i,t} + \gamma K_{c,t} + \delta Z_t + \epsilon_{i,t}$$

Bank characteristics:
- Size
- cost of risk
- cost efficiency
- T1

country characteristics:
- real GDP annual growth
- 10y sov IR spread (over 10y euro swap IR) - sovereign risk

risk factors:
- annual return on Eurostoxx equity (exposure to financial markets)
- 3m Euribor IR (proxy for yield curve level)
- difference between 10y euro IR swap and 3m Euribor (proxy for slope of IR curve)

Policy implications

- Differences in profitability across BMs and peer groups shows may indicate to the supervisors the vulnerabilities of each type of business model
- Agree with authors – future extension on sustainability important.
  - Analysis focuses mainly on profitability (performance indicator), less discussion on sustainability → title misleading?
- EBA is considering currently the classification of EU banks in business models at solo level for regulatory impact assessment purposes
  - Qualitative element – expert judgement of CAs, to allow a more refined classification of specialised BMs
  - Various challenges: differences across EU banking sectors, different interpretation of business models across countries (Mortgage bank in UK not the same as mortgage bank in PL)

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