Structural Change and Economic Dynamics
Available online 29 June 2019
In Press, Accepted Manuscript

Credit risk migration rates modelling as open systems II: A Simulation Model and IFRS9-baseline principles

S. Landini [a], M. Uberti [b], S. Casellina [c]

Show more

https://doi.org/10.1016/j.strueco.2019.06.013

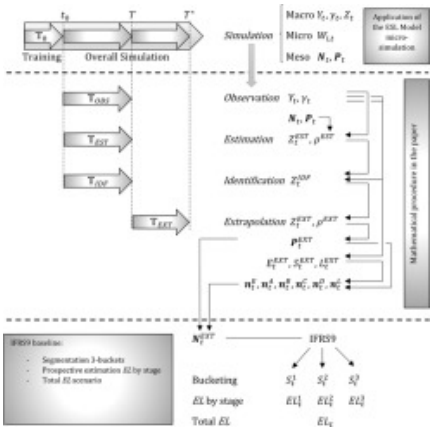
Highlights

- Credit risk migration rates matrices with entries, migrations of stayers and exits are simulated;
- A mathematical procedure to extrapolate future dynamics conditional to a macroeconomic
- scenario is developed;
- IFRS9 segmentation into buckets and prospective estimates of Expected Loss are introduced.

Abstract

In 2014 the *International Accounting Standards Board* (IASB) promulgated the current *International Financial Reporting Standards 9 - Financial Instruments* (IFRS9) that draw new lines for an *ex-ante*, reliable, unified and well-balanced credit risk assessment. Among others, two principles are of interest to this paper: that of *segmented* and *prospective* estimation of *expected credit losses*. Within the frame of a micro-simulation approach, this paper focuses on these issues while considering the evolution of a bank portfolio. The paper presents an algorithmic procedure developed on a realistic dynamic credit risk migration rates modelling of a portfolio as an open system with entries and exits that is consistent with the *segmented* and *prospective* IFRS9 principles. Although operating at the aggregate level of the migration matrix, combining accounting principles inspired to those of the IFRS9-baseline with the open systems modelling, the main conclusion is that it allows for a more reliable provision and *ex-ante* and forward-looking estimation of expected losses.

Graphical abstract



Download high-res image (139KB) Download full-size image

JEL classification

C15; C18; C53; C63; G11; G13; G17; G18; G21; G24; G28; G31; G34; G38; E47

Keywords

Credit risk; Migration rates models; Micro-simulation; Expected loss; Accounting standards

Recommended articles Citing articles (0)

View full text