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Tobias Berg , Philipp Koziol

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An Analysis of the Consistency of Banks' Internal Ratings

Tobias Berg[1] Philipp Koziol[2]

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Abstract

Internal ratings-based models are used for a variety of important bank and regulatory decisions. Thus, model risk – the potential for different models to provide different probability-of-default (PD) estimates – is of crucial importance. Using a comprehensive dataset from 40 banks and 17,000 corporate borrowers from 2008-2012, we assess the consistency of internal PD estimates across banks. We find three main results. First, the variability of PD estimates for the same borrower across banks is large. Second, bank fixed effects explain 5% of the variation in PD estimates across banks, while 95% of the variation is idiosyncratic. For the 10 largest banks in our sample, reported regulatory capital ratios would change by a maximum of ±10%, equivalent to approximately 1 percentage point, when using average risk weights from all banks instead of risk weights based on banks' individual PD estimates. Third, we explore various bank characteristics that explain the size of bank fixed effects.

Keywords: internal ratings, Basel minimum capital requirements, IRB approach, bank incentives, bank regulation

JEL-Classification: G21, G28

[1] Frankfurt School of Finance & Management, Sonnemannstr. 9-11, 60314 Frankfurt, Germany. E-Mail: t.berg@fs.de, Phone: +49 69 154008 515.

[2] European Central Bank, Sonnemannstrasse 20, 60314 Frankfurt am Main, Germany; Deutsche Bundesbank, Wilhelm-Epstein-Str. 14, 60431 Frankfurt, Germany. The views expressed are those of the authors and do not necessarily reflect those of the ECB or Deutsche Bundesbank. E-Mail: philipp.koziol@ecb.int, Phone: +49 69 9566 3343.

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