



TOPICS:

Credit Risk

SOURCE:

European Central Bank

ECB: Earnings Manipulation and Probability of Default - Insights from AnaCredit and Supervisory

- The paper examines **whether banks' internal credit risk models adequately capture signals of earnings manipulation** when estimating firms' probability of default (PD). Using AnaCredit data combined with Orbis financial statements (2019–2022), the study analyses 1,349 publicly listed firms and applies the Beneish M-Score to detect potential manipulation.
- The central finding is that the relationship between earnings manipulation and PD is **non-linear and context-dependent**. Across the full sample, a weak negative correlation is observed between M-Scores and PDs, implying that firms with higher manipulation indicators may paradoxically appear less risky in banks' internal models. However, this result is driven by the majority of firms (over 90%) that show no manipulation signals. When focusing on the subset of firms exceeding the manipulation threshold (8.9%), a clear positive relationship emerges: higher manipulation risk is associated with significantly higher PDs, which increase further as manipulation intensifies.
- Methodologically, **the paper employs regression analysis with bank, sector and time fixed effects**.

It demonstrates that while standard PD models may incorporate financial ratios, they often fail to fully capture qualitative risks embedded in manipulated financial statements. Evidence from predictive models further shows that firms flagged for manipulation exhibit higher default likelihood over a 12-month horizon, although results are constrained by a low number of observed defaults.

- **Cross-sectional analysis** highlights concentration effects. Higher PDs and manipulation signals are observed in specific countries (e.g. Portugal, Luxembourg, Greece) and sectors (notably real estate, construction, and financial services). Smaller firms also display higher default risk relative to large corporates.
- The paper concludes that current internal rating systems may underreact to manipulation signals, particularly in early stages, implying a **delayed risk recognition effect**. It recommends complementing quantitative models with expert judgement or qualitative overrides. Additionally, it introduces a conceptual "PD+" metric that integrates manipulation risk into default estimation, aiming to enhance risk sensitivity and supervisory effectiveness.

