Risk Shifting and Regulatory Arbitrage: Evidence from Operational Risk

Brian Clark and Alireza Ebrahimi

Discussant: Yuqian Xu (UIUC)

July 2018
Summary

• Capital constrained banks took on operational risk to shift their risk profiles and effectively engage in regulatory arbitrage.

• Show weaknesses in regulations provide incentives for banks to shift their risks towards less regulated risk type – operational risk.

• Using operational risk as a mechanism for risk arbitrage leads to its rise as a leading risk type.

• Banks operating closer to their regulatory capital minimums exhibit more risk shifting behavior.
Data

• Unique data set of operational risk events from large U.S. banks (cross-sectional nature) covering the entire “parallel run” period.

• Detailed information of each loss event: occurrence date, discovery date, and accounting date.

• Representative – 64% of the total commercial banking assets in the U.S. over the sample period.
Method

\[
\text{OpsExposure}_{it} = \alpha_i + \delta_t + \beta \text{CapitalRatio}_{it-1} + \gamma X_{it-1} + \epsilon_{it}
\]

• Two measures of risk exposure: 1) equally weighted 2) cumulative

• Two measures of capital ratio: 1) tier one regulatory capital ratio 2) leverage ratio
Contribution

• Financial regulation literature – operational risk allows banks to leverage up while still complying with regulations

• Regulatory arbitrage literature – regulatory arbitrage in the banking industry does not necessarily have to involve complex financial instruments
Highlights

• An important question – 25% of large banks’ risk profile

• Operational risk as a mechanism for risk arbitrage -- no need of complicated/innovative financial products/instruments (the paper explains clearly how operational risk acts as a channel to affect the entire economy)

• Considerable amount of mergers and acquisitions – manually search for the acquisition date for every loss that was coded as being from an acquisition, and then drop losses whose accounting date is prior to the acquisition

• Very thorough robustness checks from multiple perspectives
Suggestions

• Relationship between risk exposure and capital ratio – complicated behavior issues
Suggestions

• Details of risk events – maybe categorize the event types and incorporate some event specific covariates, more detailed explanation on what type of events

• More explanation on control variables in the regression function – features of different banks, cross-sectional data

• Operational risk exposure – 1) spread loss event amounts between the loss occurrence and discovery dates (continuous?) 2) assume banks take operational risk as a fixed proportion of total assets (more references?)
Potential Future Directions

• Internal bank data to study other root causes of operational risk events – combine with bank operations data (workload, employee stress, incentive issues)

• Study the data after 2012 Q4, see whether risk shifting behaviors have been changed

• Look into patterns of time lag between occurrence date and discovery date – combine with other factors to understand the causes of different time lag (how and who)
The End

Thank you for your patience