

Operational Risk Stress Testing

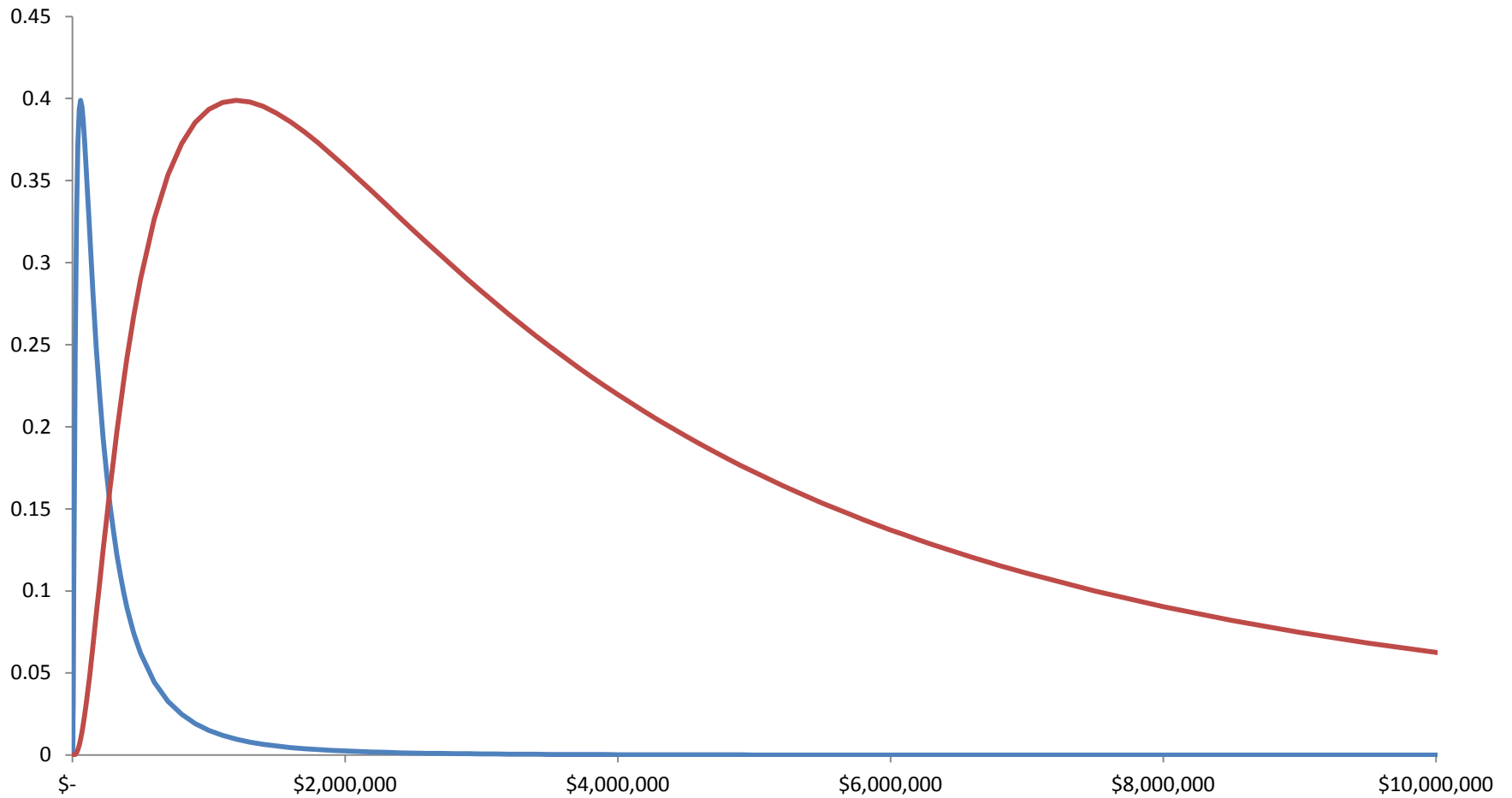
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Macro Stress Testing

- Common mis-conception in operational risk is to think of stress testing as simply a move along the loss distribution to higher quantiles.
- A true macro stress test should result in a change of the loss distribution itself, reflecting a change in the risk exposure.
- This affects both the required capital and the expected losses (and consequently capital availability).

Move of the curve



Ops Risk and the business cycle

- Operational risk has often been perceived as a-cyclical.
- This perception is due to the models used for AMA purposes which are through-the-cycle and to the lack of sufficient data to establish links.
- Also, operational risk is an amalgam of very different risks. Some types of operational risk are sensitive to the business cycle, whereas others are not.

Indiosyncratic aspects of Ops Risk

- Operational risk is more subject to idiosyncratic events than other risks. How should we deal with those?
- Problem of directionality of the relationship: large operational risk events (eg: tsunami in Japan) that have a macro-wide impact with second order operational risk consequences.

Challenges

- Short data series are the main challenge. Individual banks might not always be able to detect a statistically significant link between operational risk losses and macro-economic factors.
- Operational risk most likely does not depend contemporaneously on macro variables. There are significant lags (ex: lawsuits).
- The links are also probably not direct: macro variables impact firm specific variables which in turn impact operational risk losses.
- A lot more research needs to be done!

Where do we go from here?

- We need to keep doing research on the modeling/statistical side, bearing in mind that statistically significant results might be elusive at first.
- Importance of scenarios in order to better understand how operational risk depends on macroeconomic factors.
- How will LDA models evolve as a result of stress testing related research. Can the two approaches converge?