Trading and counterparty risk for CCAR

Current status and possible future extensions

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Overview

- Supervisory Scenario for CCAR Market Risk covers potential losses in trading positions and private equity positions
- Stress test approach consists of models for mark-to-market losses and jump-to-default risk
  - Mark-to-Market losses consist of:
    - trading position losses
    - CVA losses for derivatives counterparties
  - Currently, losses from jump-to-default risk consist of:
    - incremental default risk for derivatives counterparties
    - incremental default risk for credit instruments
- Supervisory stress tests includes Adverse case and Severely Adverse case, but we won't focus on that distinction here
- Today's discussion will focus mostly on **trading position losses**

Current CCAR Market Risk Scenario

- Common scenarios used across all firms subject to Trading Book scenario
  - Some positions, including private equities and securitized products, face fixed price declines, depending on risk characteristics of positions
  - Other positions, including index positions, face fixed percentage declines
  - Derivatives positions are captured via a risk factor representation
    - Many thousands of risk factors are defined by supervisors
    - Banks report P&L effects of changes in these risk factors via 'Greeks' (deltas-gammas-vegas), P&L vectors (P&L effects of an index up or down 5%, 10%, 25%, and 50%), or P&L grids (P&L effects of various combinations of spot and volatility shocks)
  - Supervisors value banks' positions at today's levels and at Supervisor-determined shocked levels, and the aggregate P&L Effect of the Trading Book shock is the difference between these valuation levels

Advantages of Current CCAR Market Risk Scenario

- Trading Book stress test is transparent, as risk factors are explicitly identified and sizes of shocks are widely known
  - Little risk of mis-interpretation of what is being sought in the Supervisory Stress Scenarios
- Scenario is consistently applied across in-scope firms, therefore allowing cross-firm comparisons
  - BHC scenario results lack this cross-firm comparability
- Framework is flexible to allow for multiple scenarios (multiple sets of shocks) for each bank's submission

Potential Drawbacks and Limitations of Current CCAR Market Risk Scenario

- Use of common scenarios across firms suggests scenarios are not tailored to individual firms' positioning or exposures
- Market risk shocks are instantaneously applied
  - Timing is inconsistent with the nine-quarter path laid out for the macro scenario
  - Application of instantaneous shocks does not allow for dynamics of management behavior or market liquidity under stress
- Market risk shock sizes are not necessarily scaled to be consistent with the severity of the macro shock
- Basis risks at more granular levels than provided by the risk factor specification are not captured
  - Not clear there are outsized losses in spread trades relative to large directional positions in traded credit, structured products, or private equity

Considerations for Future CCAR Market Risk Scenarios

- Extend stress scenarios to different states of the world
  - Deviations from 2H2008
    - Choose multiple stress scenarios?
    - Layer on variations – rising rate scenarios? geographical stresses? product specific stresses? counterparty level stresses?
- Change structure of data collection
  - Design to maintain an internally coherent structure
  - Structure to allow for 'top-down' scenario development
    - Currently difficult, with so many thousands of risk factors
  - Structure must be credible to all stakeholders
    - Historical scenarios are more inherently credible than hypothetical scenarios, no matter how carefully crafted
- Use of Supervisory reverse stress testing?
  - Are the results of a reverse stress test "actionable" by Supervisors?

Additional Analysis for CCAR Market Risk Scenarios

- Benchmark portfolio analysis can evaluate level of variability across firms in estimating values and price sensitivities
  - Is the goal of cross-firm comparability being undermined by variations due to differences in firms' valuation and risk models?
  - How granular should such benchmark portfolios be?
- Robust independent supervisory modeling of trading book positions would augment the supervisory challenge of firm-specific and common industry trading models
- Sometimes unclear how qualitative supervisory assessments of firms' CCAR processes should best be translated into quantitative effect on loss estimates

Questions?