Discussion: Banks as Regulated Traders
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Summary

▶ Research Questions
  ▶ How does banks’ trading contribute to systemic risk?
  ▶ How did it change after the Volcker-rule?

▶ Exercise
  ▶ Define trading returns as

\[
    r_{it} = \frac{P&L_{it}}{\sqrt{N_t \text{VaR}_{it}}} - R^f_t
\]

  ▶ Regress returns on Market, Volatility, Level, Term, Dollar, Commodity factors and interact exposures with Volcker-rule dummy

▶ Findings
  ▶ Before Volcker: economically large exposures to equity market risk
  ▶ After Volcker: practically no exposure to equity market risk, continued exposures to credit and dollar factors

▶ Contribution
  ▶ Unique data could lead to useful set of stylized facts
Discussion

Paper: Measures risk-exposures of trading activities to understand whether they increase/decrease systemic risk

Conclusion: Volcker rule was successful

Discussion:

(1) Quarterly trading positions and P&L seem to disagree

(2) Problem with the interpretation of the results

(3) Suggestions
Quarterly trading positions

Small increase in equity securities held for trading

FR-Y-9C bank holding company filings
Banks report P&L based on underlying risk exposures
No change in equity P&Ls post-Volcker

Looks very similar in dollars

Note: P&L definition as in paper
Modest contribution from equity risk to trading revenue

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Interesting heterogeneity in Top 4 trading P&L

No interesting cross-sectional differences based on author’s return definition

Distribution of P&L consistent w/ banks’ trading market shares
Paper documents large equity exposures pre-Volcker & small post

But $ profits due to equity exposures have not changed

Reconciliation

(1) Return definition

(2) Dollar amount of risk
Trading portfolio return definition

- “Returns” akin to a Sharpe Ratio - standardizing P&L

\[ r_{it} = \frac{\text{P&L}_{it}}{\sqrt{N_t \text{VaR}_{it}}} - R^f_t \]

- Value-at-Risk (VaR) says how much a portfolio stands to lose
  - Over time period \( t \) (day)
  - In \( x\% \) of the time (99% quantile)
  
  VaR $100 of portfolio XYZ means \( \text{Prob}(\text{Loss}(XYZ) \geq 100) = 1\% \)

- View in paper: VaR like committed capital
  - Not invested capital
  - VaR function of factor changes
    E.g., if market risk goes up VaR can increase at the same time banks experience losses \( \Rightarrow \) lower absolute “trading returns”

- Alternative to VaR as scaling measure:
  FR 2644 weekly trading asset positions
Exercise does not measure how much risk banks take

- Profits/VaR exposures low while invested $ dollar exposures high

- Begenau, Piazzesi, Schneider (2015): quarterly data to estimate banks’ credit and interest rate risk exposure for entire balance sheet and derivative positions

  Suggestion
  - Replicating portfolio approximates the $ value change of trading books
  - Use weekly Fed 2644 form for $ asset positions (not at portfolio level)

Advantages:
- Measures quantity of risk
- Unlike VaR can aggregate replicating portfolios across institutions to calculate systemic risk measure
- Can efficiently characterize entire distribution of the portfolio value
Conclusion

- Interesting data and promising paper on trading book facts
  - Need more analysis before calling the Volcker rule a success
- Reconcile quarterly positions and P&L
- Suggestions:
  - Instead of VaR or RWA (function of VaR) use weekly trading asset positions to normalize gains and losses - closer to actual return definition
  - Calculate replicating portfolio of trading book to get at quantity of risk