Insurance Pricing, Distortions, And Moral Hazard: Quasi-Experimental Evidence from Deposit Insurance

George Shoukry

Views and opinions expressed in this presentation reflect those of the author and do not necessarily reflect those of the FDIC or the United States

Risk-Based Pricing and Moral Hazard

- Insurance can be associated with moral hazard
  - Ex ante moral hazard: insured parties may take on more risk (e.g., Grossman 1992, Ioannidou and Penas 2010)
- Risk-based pricing: risky firms pay higher premiums
  - May solve the ex ante moral hazard problem (Ehrlich and Becker 1972)
- Little analysis of the effects of risk-based pricing on ex ante moral hazard
  - Does risk-based pricing provide sufficient incentives to reduce risk?
  - Does it cause other distortions in how institutions behave?

The (Quasi) Experiment

- In the mid 1990s the FDIC oversaw two deposit insurance funds:
  - The Bank Insurance Fund (BIF) insured mainly commercial banks
  - The Savings Associations Insurance Fund (SAIF) insured mainly thrifts
- In the Early 1990s both funds were undercapitalized. Banks and thrifts were to pay deposit insurance premiums until their respective fund was recapitalized
- The BIF recapitalized first in 1995 Q3. The SAIF recapitalized 6 quarters later
  - Congress mandated a one-time special assessment to recapitalize the SAIF
  - For 6 quarters, SAIF and BIF members faced different risk-based premiums (variation in both *levels* and *steepness* of premiums)

Questions and Overview of Results

- (Incentives) Do premium differentials create incentives to lower risk?
  - Banks shift funding sources to reduce the impact of higher premiums
  - A residual effect on profitability is still present
    - Stronger for smaller banks

→ *Premium differentials create incentives to lower risk*

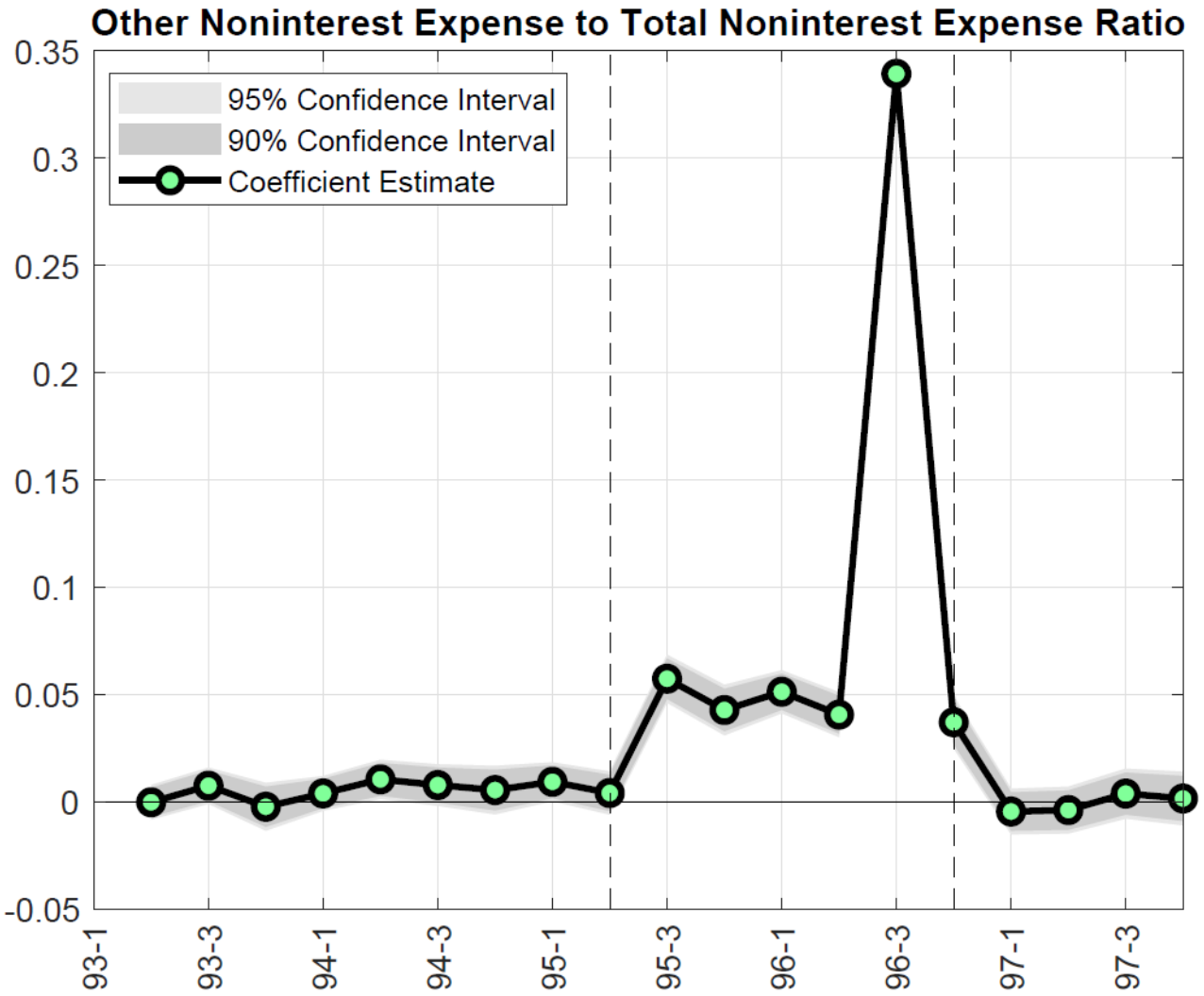
- (Responsiveness) Do banks respond to those incentives by lowering risk?
  - Banks facing stronger pricing incentives alter their risk taking in response

→ *Risk-based premiums are effective at mitigating moral hazard*

- (Other Distortions)
  - Banks engaged in regulatory arbitrage to lower their assessment burden

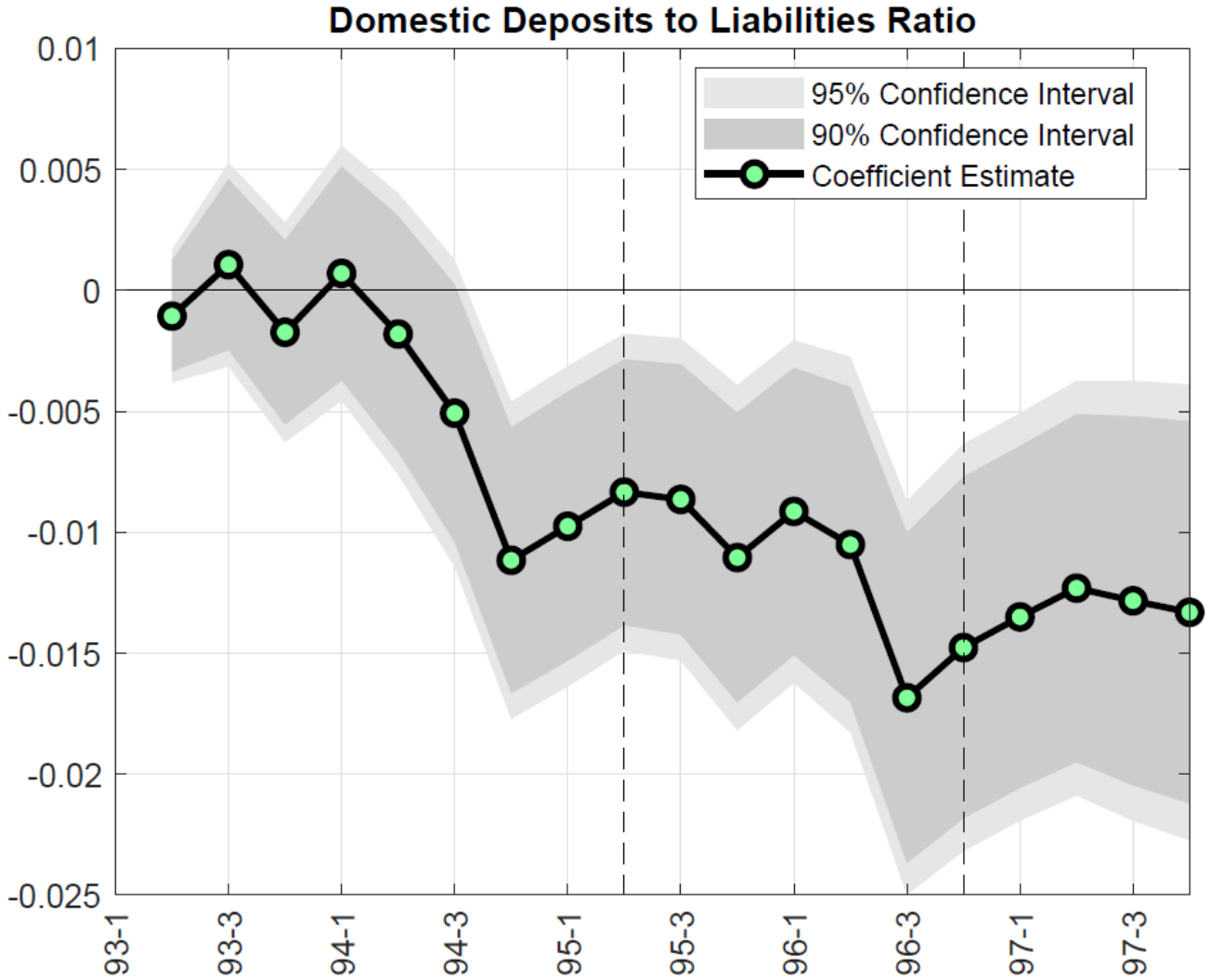
The Disparity

- SAIF institutions temporarily paid higher premiums than BIF institutions (through a reduction in BIF members' premiums)



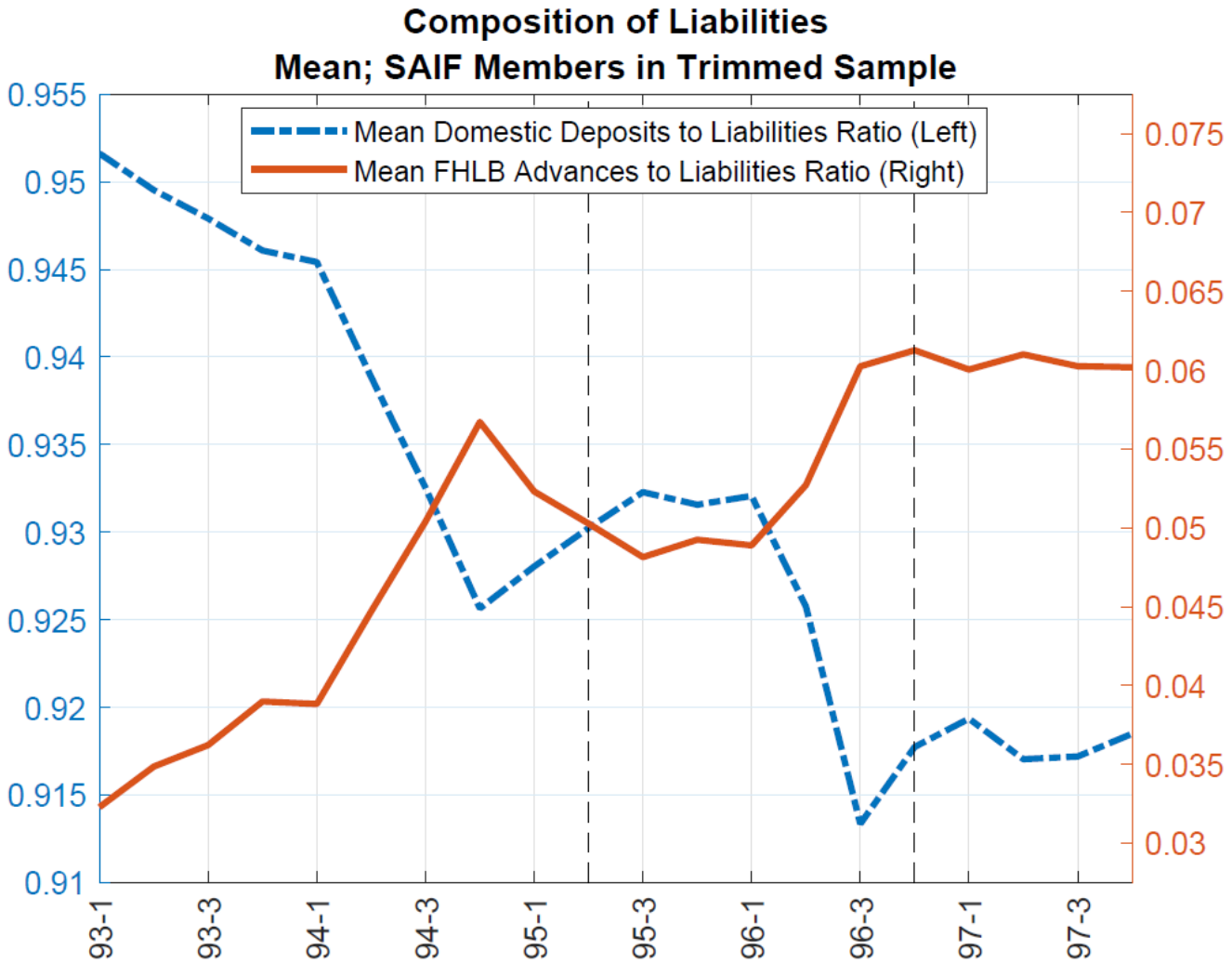
Funding Sources

- SAIF institutions reduced their reliance on deposits when compared with BIF institutions. The changes occurred right before and during the disparity.



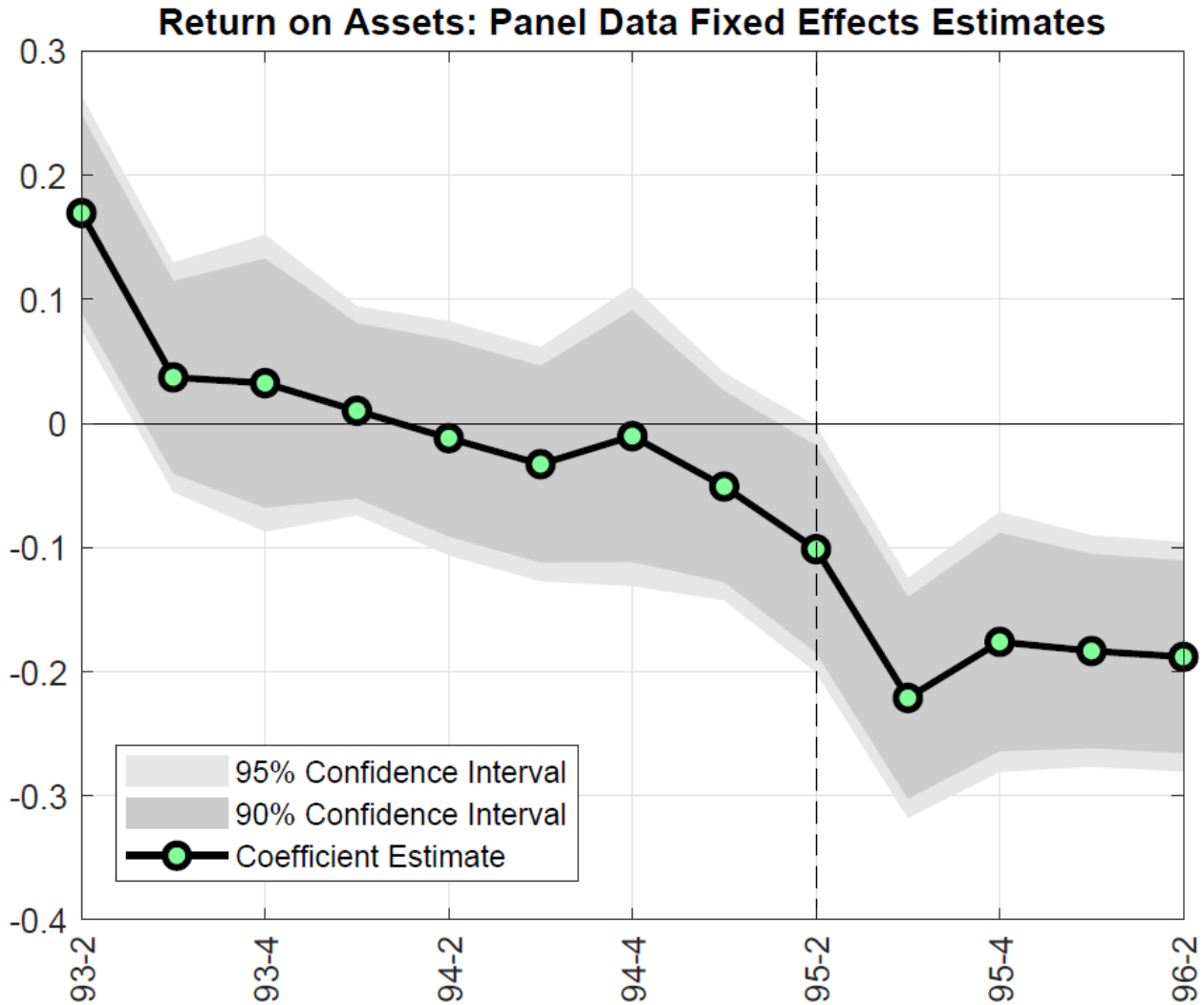
FHLB Advances

- The reduced reliance on deposits was accompanied by increased reliance on Federal Home Loan Bank (FHLB) advances



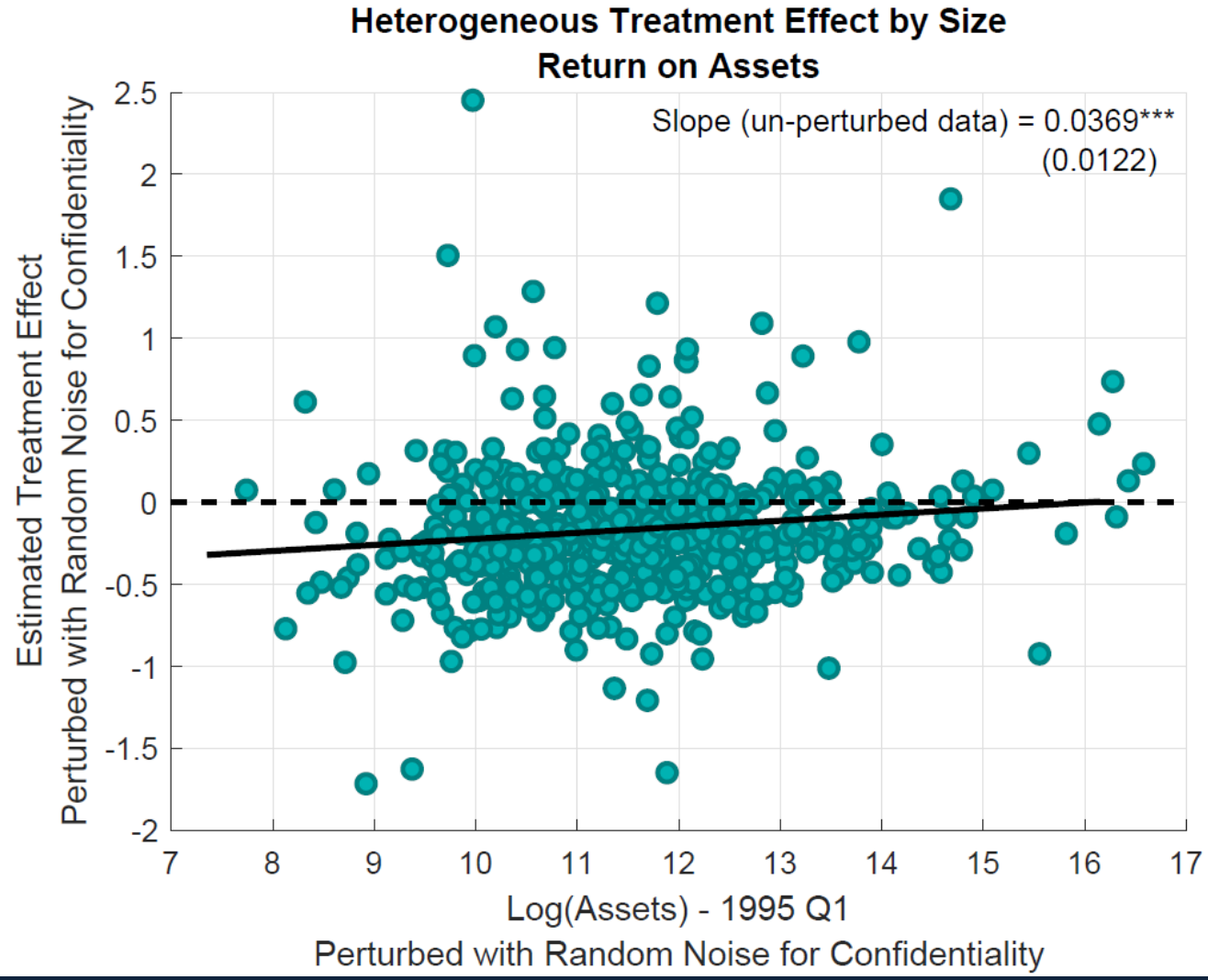
Profitability

- The profitability of SAIF institutions declined significantly relative to BIF institutions
- Implication: *differentials in premiums provide incentives to avoid risk-taking*



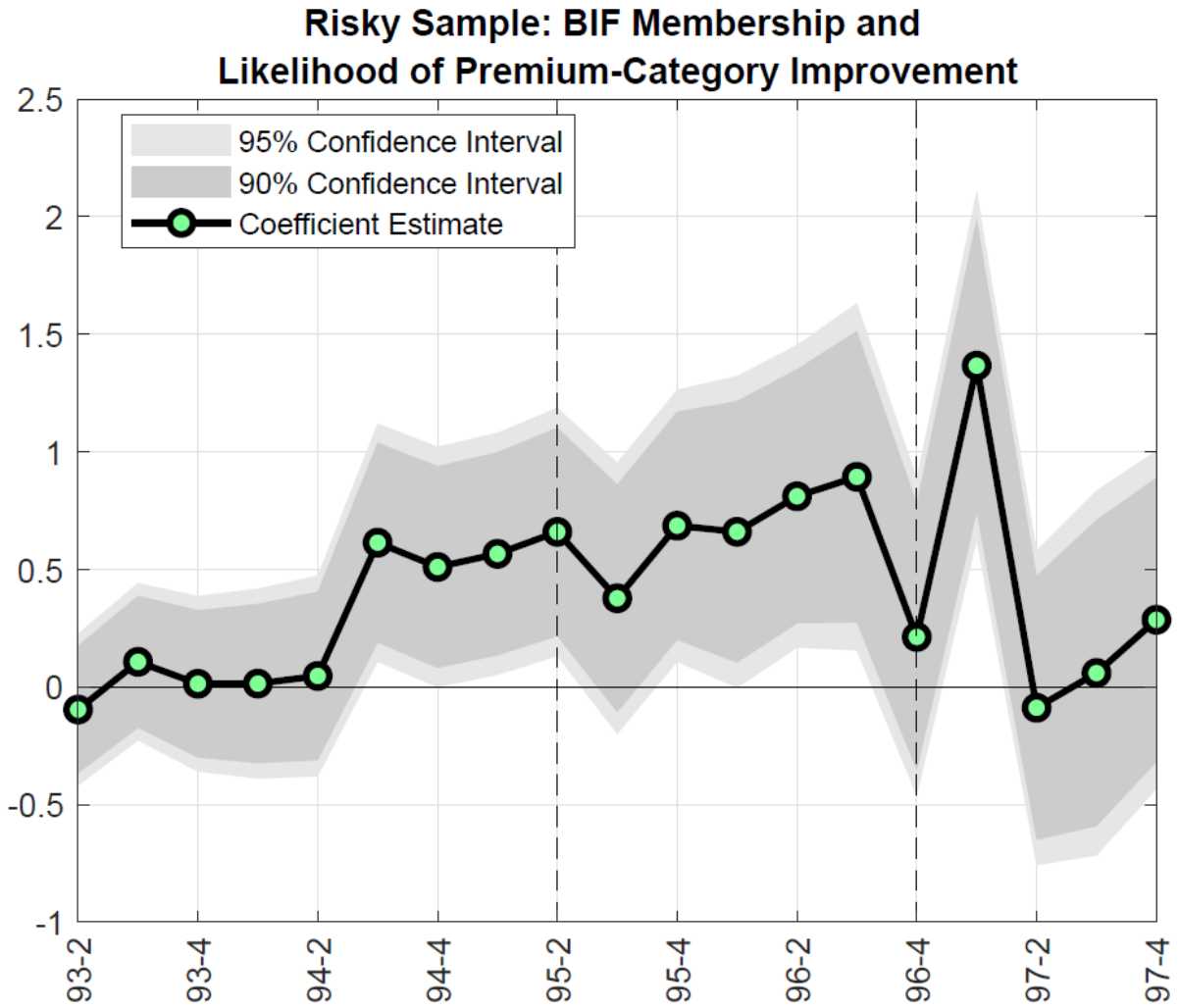
Profitability and Size

- Smaller SAIF institutions were more (negatively) affected by the disparity



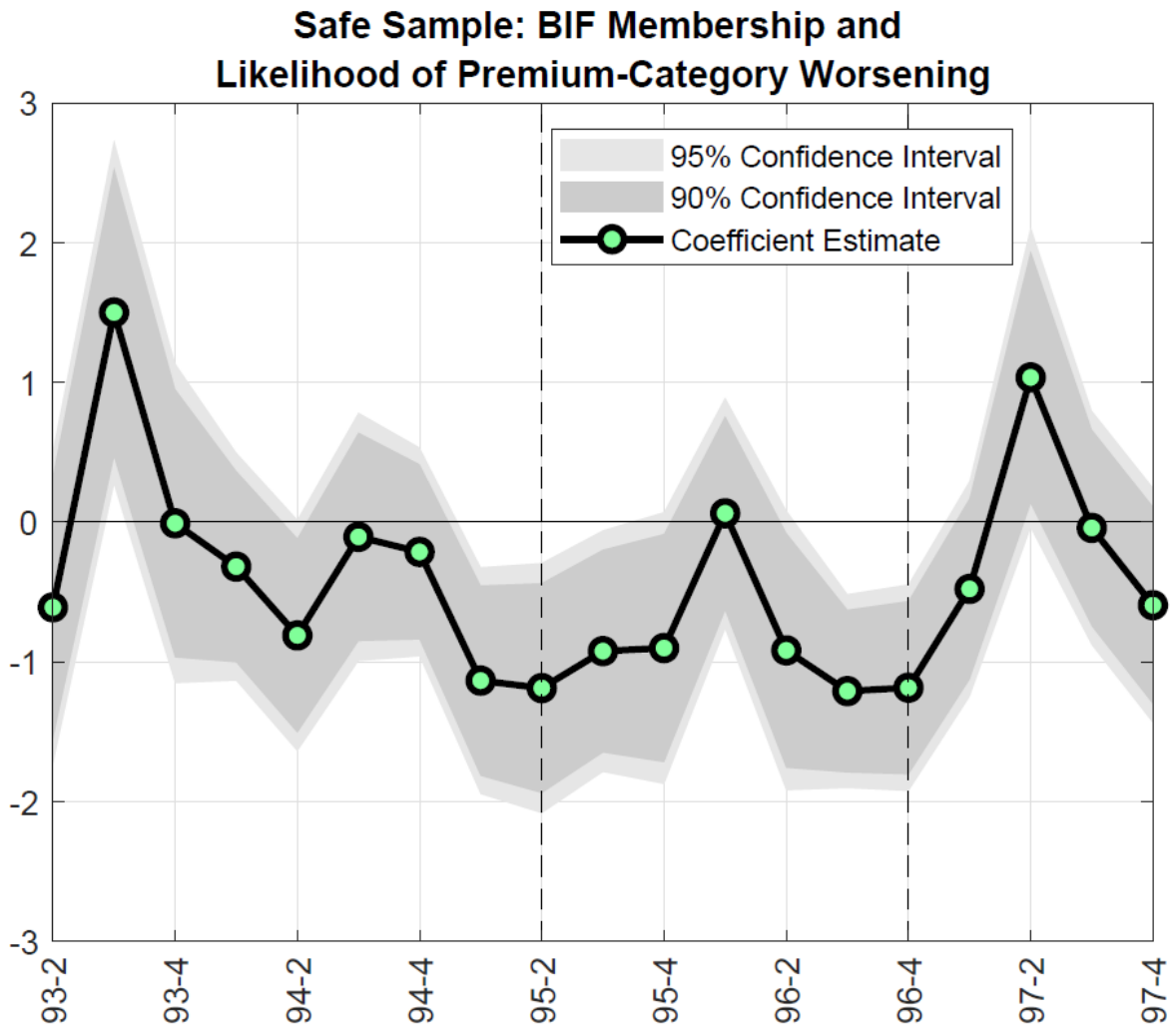
Responsiveness (Risky Institutions)

- BIF members faced a steeper risk-based pricing schedule during the disparity
- Among risky institutions, BIF members were more likely to move to a lower-risk category than SAIF members



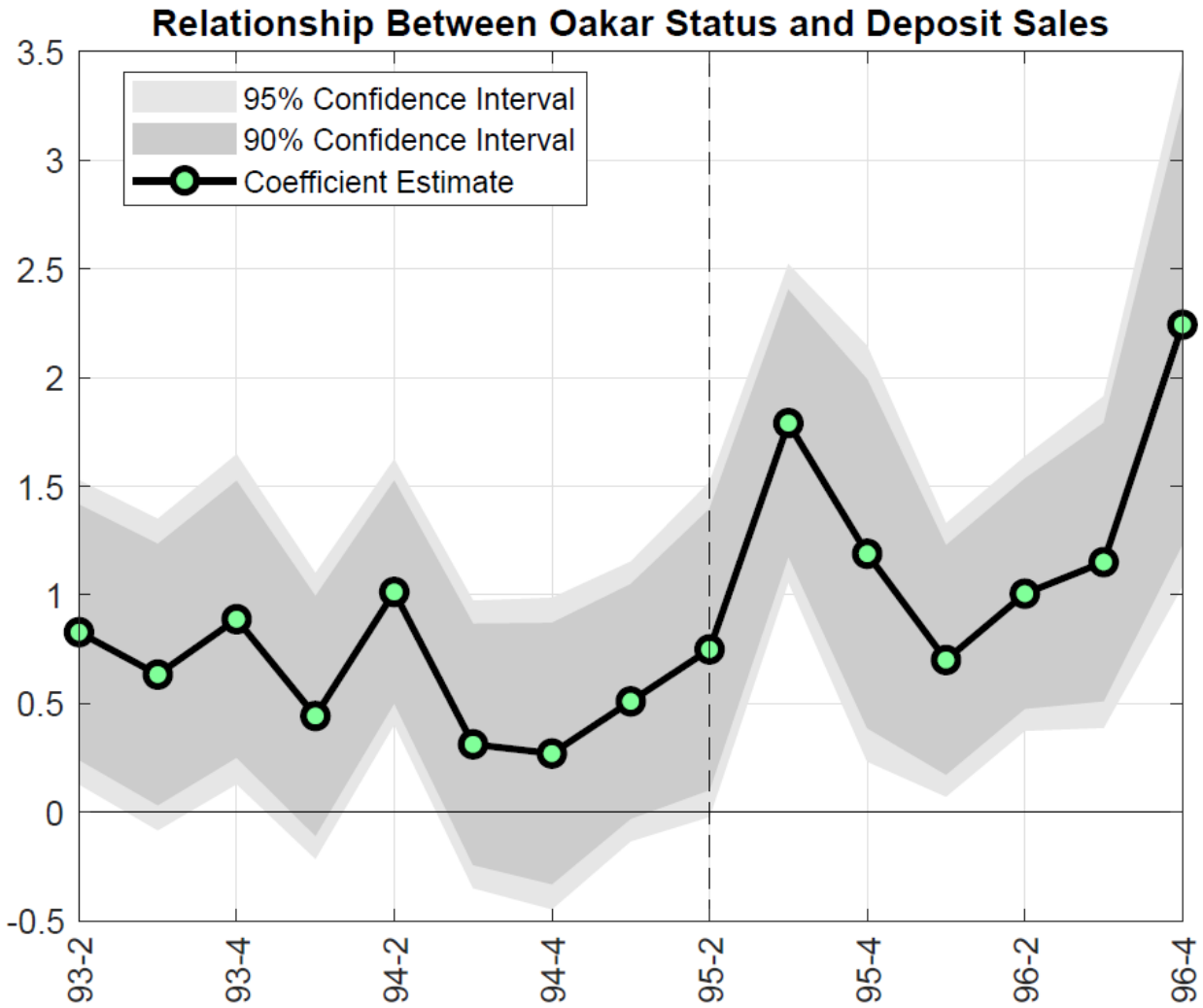
Responsiveness (Safe Institutions)

- BIF members faced a steeper risk-based pricing schedule during the disparity
- Among safe institutions, BIF members were less likely to move to a higher-risk category than SAIF members



Regulatory Arbitrage (Deposit Sales)

- "Oakar" BIF members had deposits insured by both funds
- An asymmetry in deposit sale rules allowed Oakar banks to partially migrate deposits from BIF to SAIF



Conclusions

- Risk-based pricing is effective at mitigating moral hazard
  - Risk-based pricing provides sufficient incentives for banks to lower risk taking
  - Banks do respond to the incentives by altering their risk taking

- Robust regulatory controls and appropriate laws and policies are needed to minimize distortions and regulatory arbitrage