

Financial Stability Modeling at Central Banks

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Disclaimer

The views presented here are mine and do not indicate concurrence by other members of the research staff or the Board of Governors of the Federal Reserve

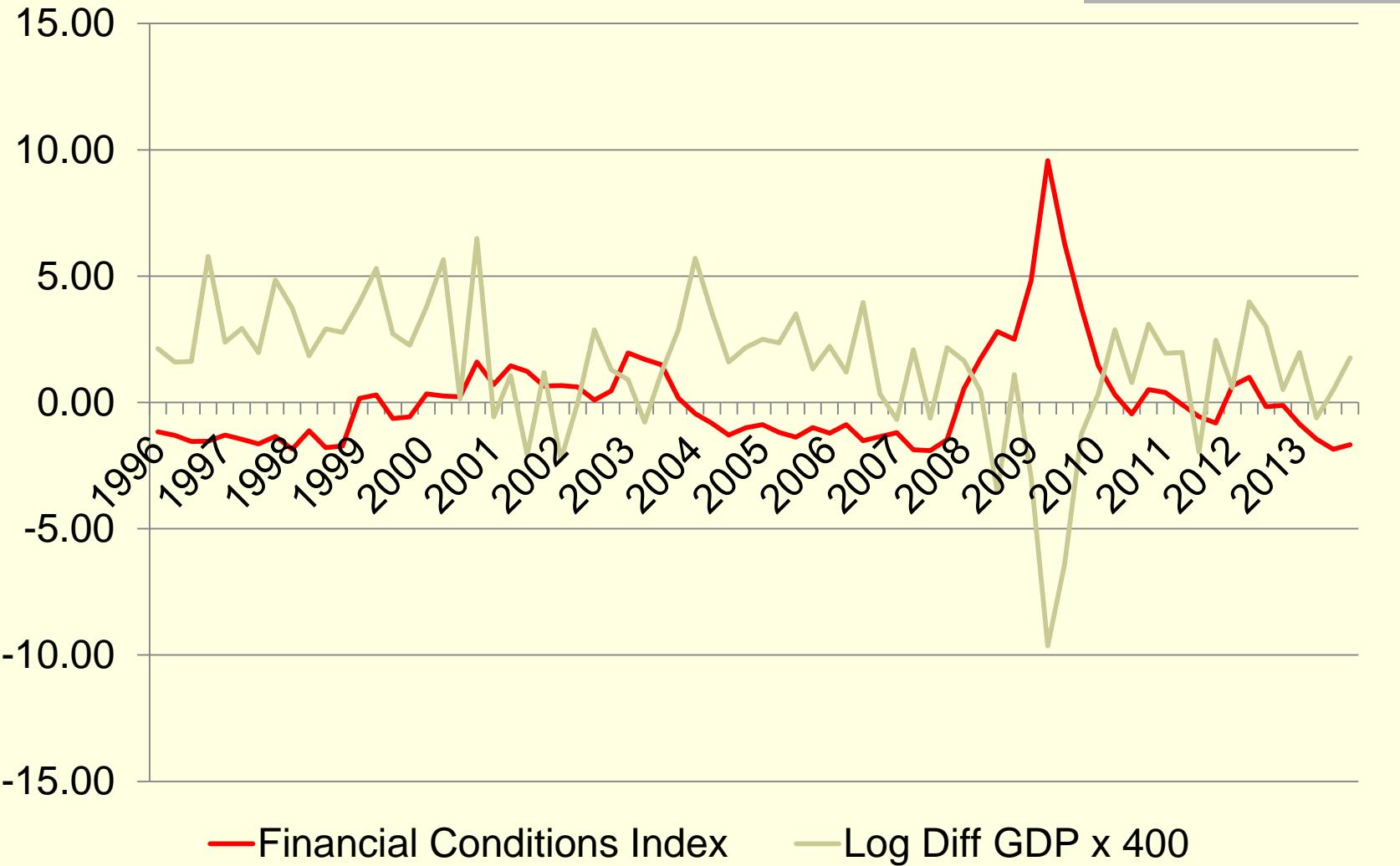
DSGE Models and Financial Stability

- Sense that models missed most important macro development of our generation
- Finance as a veil → dynamics don't vary with e.g. level of bank capital
- Policymakers charged with
 - Avoiding financial crises and
 - Optimal use of macroprudential tools
- Coincidentally (?) currently confronting unprecedented monetary stimulus
 - Are persistently low rates stimulating bubbles?
 - If so, does it matter?

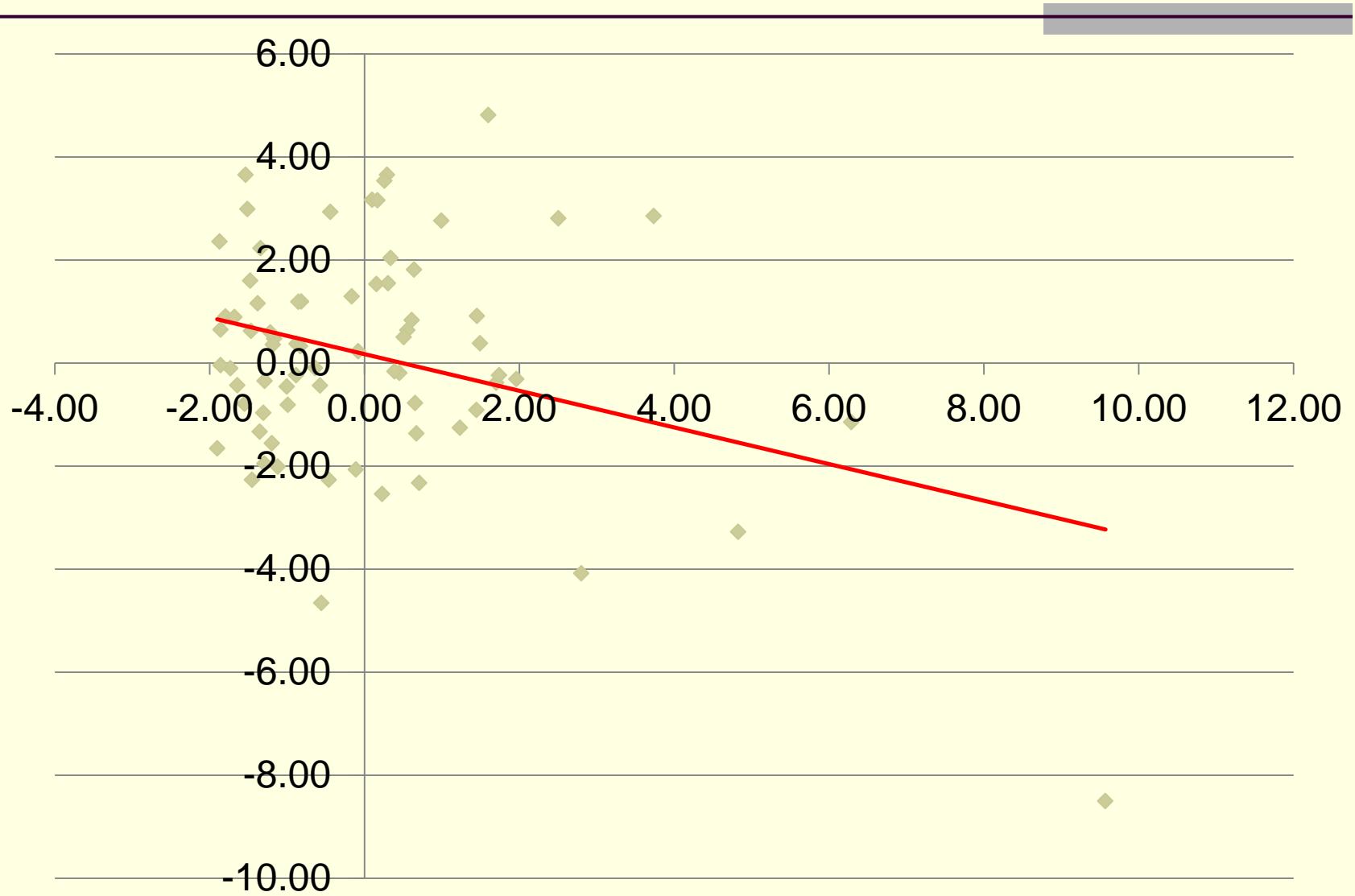
As we've seen, it's not easy

- Adding intermediaries and financial frictions to standard models
- Mixed success
 - Struggle to match data
 - Models disagree
- Unsurprising—if rich financial sectors help models match moments the literature would have adopted them long ago

Financial stress index and GDP



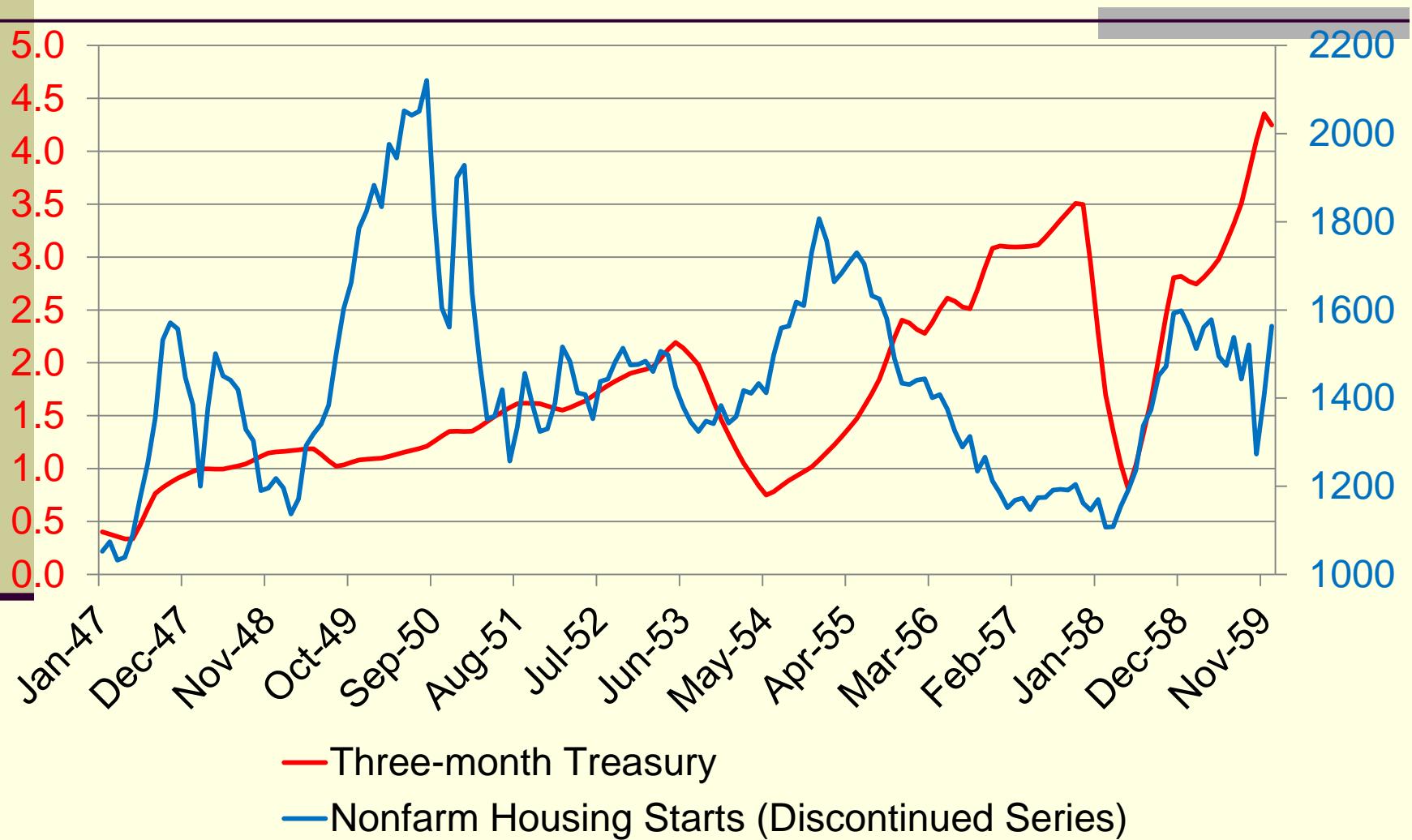
GDP forecast errors and stress index



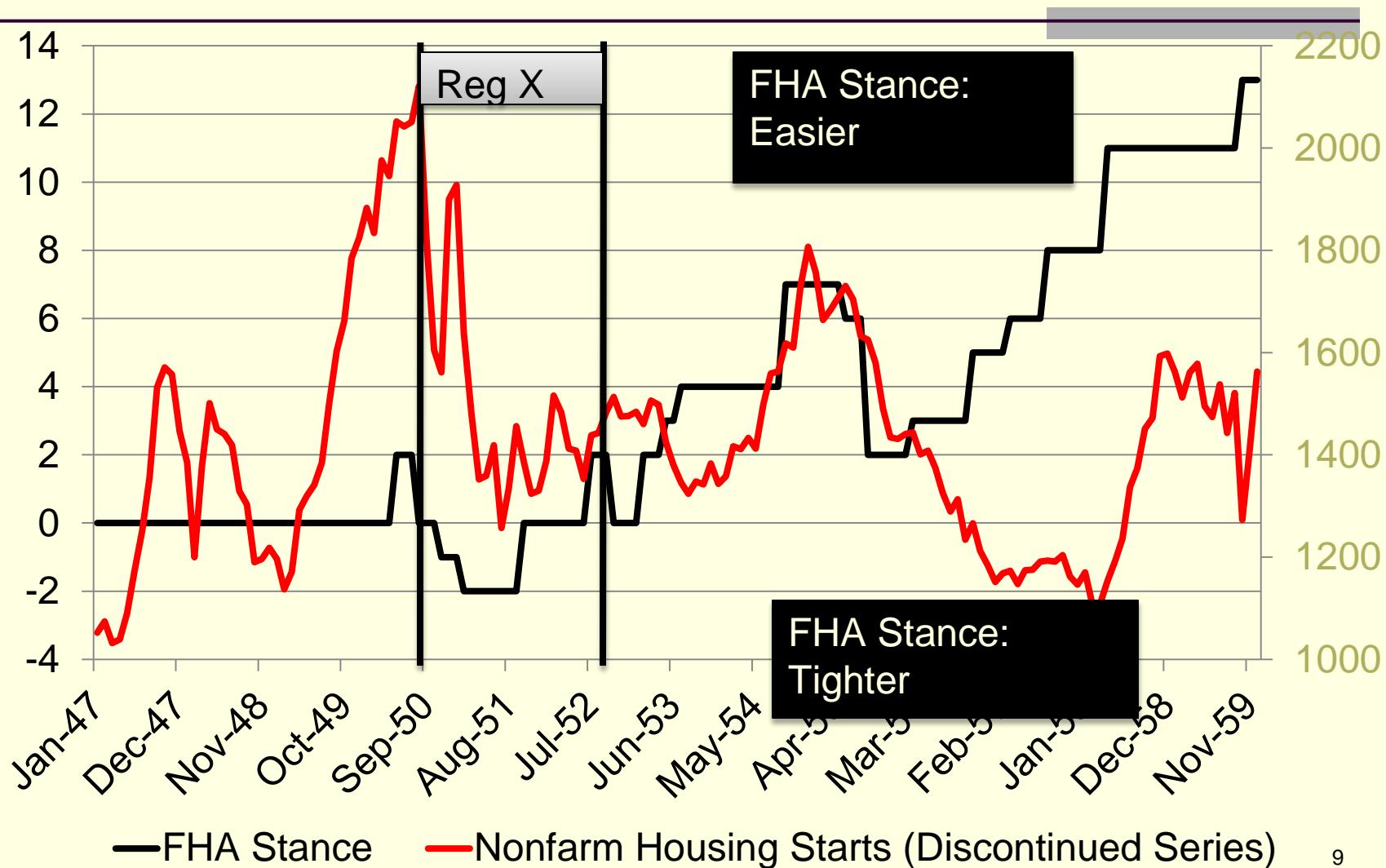
Example of macroprudential policy

- Late 1940s to 1960s—constant concern that housing sector was overheating
- October 1950: Fed authority over underwriting standards (LTV etc.) expanded to mortgages
 - Limited to non-government lenders
 - Controversial: “a long step in the direction of Government planning” “[a] credit police state”
 - Rescinded by Congress in Sep. 1952
- U.S. housing agencies (FHA & VA) separately adjusted terms
 - Initial tightening at presidential request
 - Congress adjusted terms several times (ease and tight)
 - Main macroprudential actor in 1954—55 boom

Housing starts and interest rates



Housing starts and macropru stance



Macroprudential policy considerations

- Politically potentially more costly
- Objective function: tail not modal outcome
- Interfere with allocative efficiency
- Most tools designed for other purposes
 - Implementation more cumbersome
 - What happens to their primary purpose?

Other considerations

- Banks provide liquidity transformation
 - Procyclical
 - Fire sales
- What was the financial crisis?
 - A huge drop in U.S. house prices?
 - Or exacerbated by “plumbing” considerations?
- What is role of nonbanks?