

Some points on Monetary Policy and Asset Pricing

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Based on work with Silvia Miranda-Agrippino and Nuno Coimbra. This does not represent in any way the views of the French Macroprudential authority.

Central Banks and Asset Pricing

Empirical links between Central Bank policy and asset markets:

- Central Banks respond to asset market developments
- Central Banks have important effect on market risk aversion.
- Monetary policy and financial stability have deep connexions. (risk taking channel)

US Monetary Policy and Risk Aversion

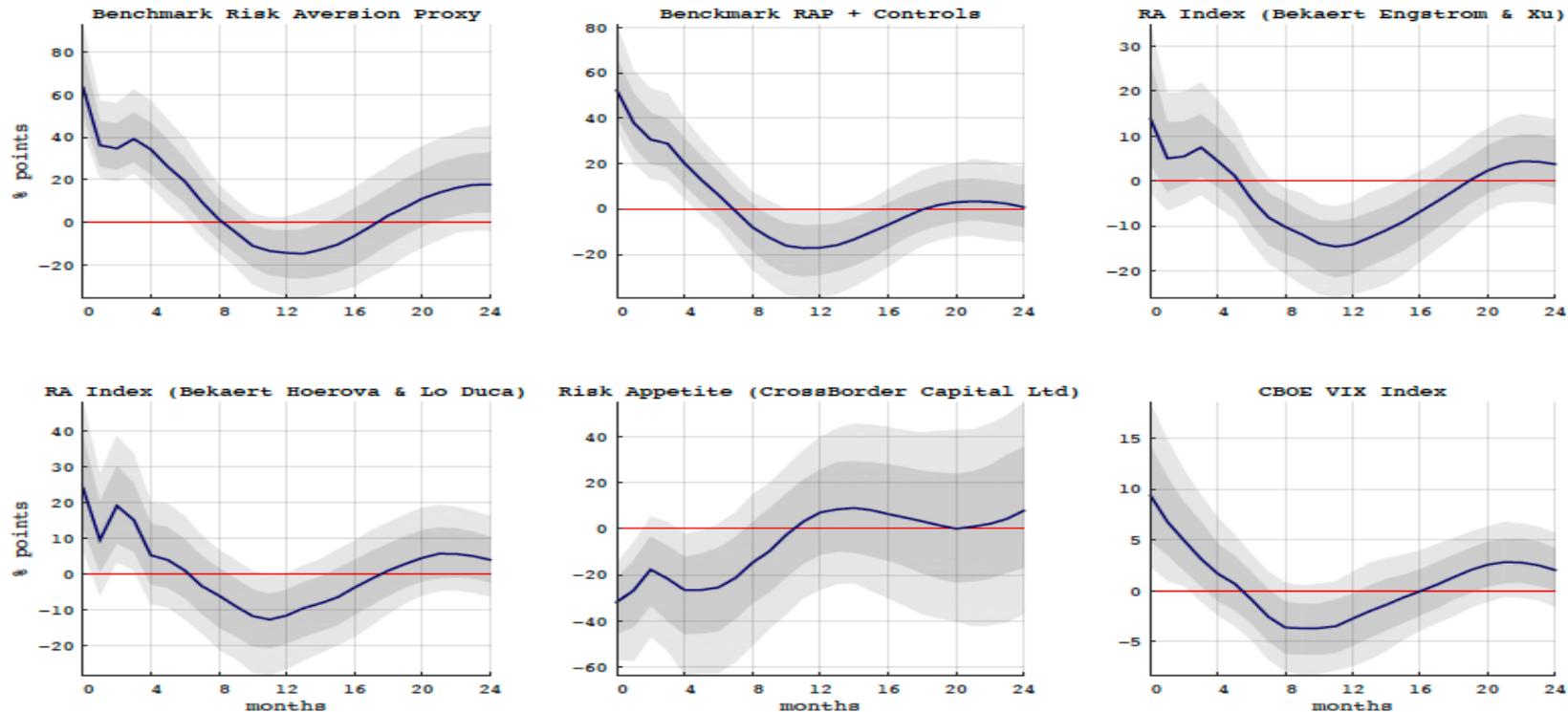


Figure: Response of Risk aversion (% points) to a monetary policy shock inducing a 100bp increase in the Effective Fed Funds Rate.

Source: Rey (2013) Miranda-Agrippino and Rey (2020)

Bank Leverage in the US and the EU

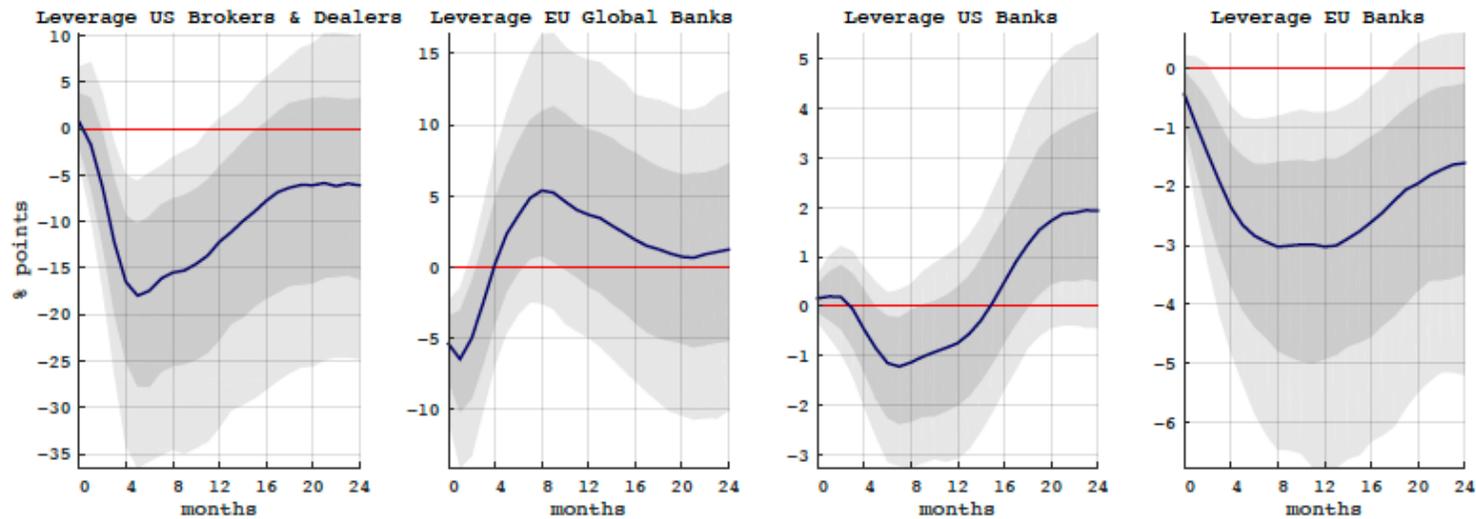
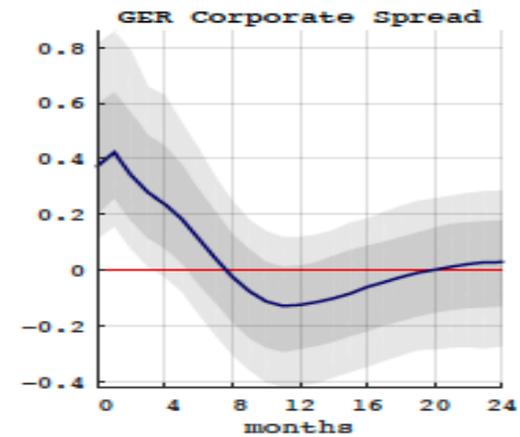
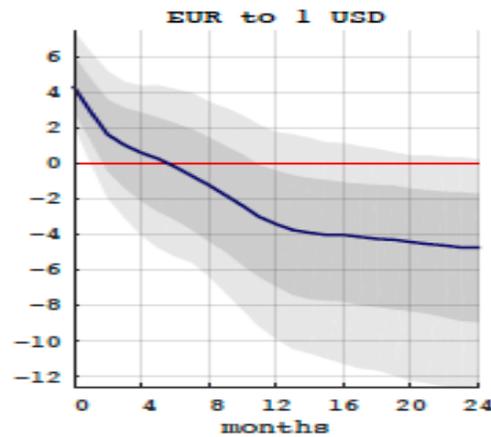
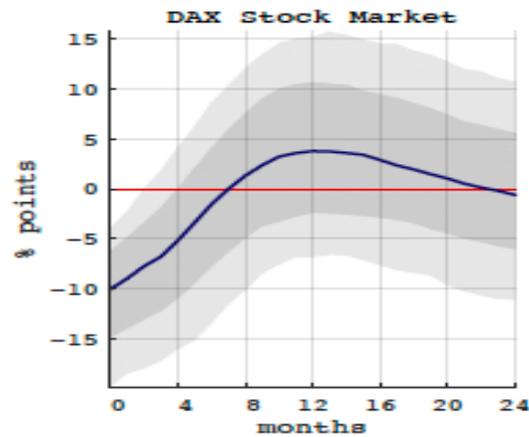
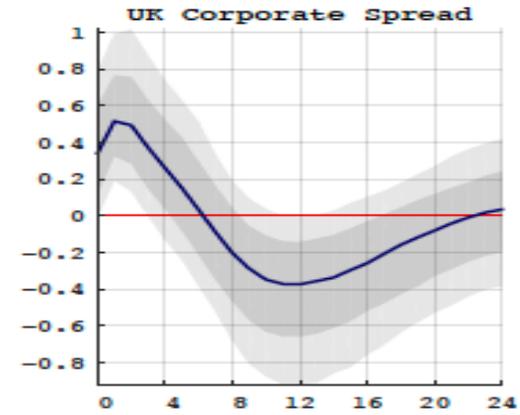
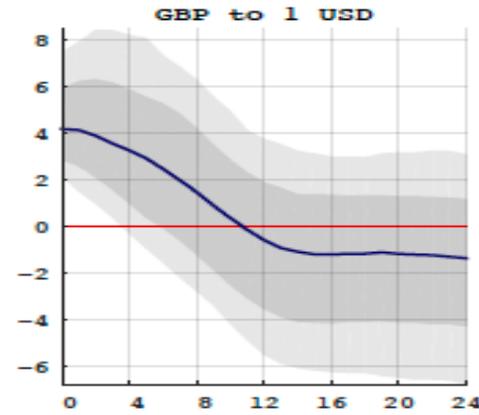
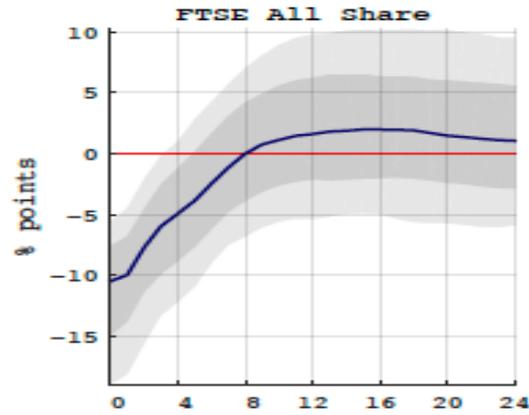


Figure: Response of Banking Sector Leverage (% points) to a monetary policy shock inducing a 100bp increase in the Effective Fed Funds Rate.

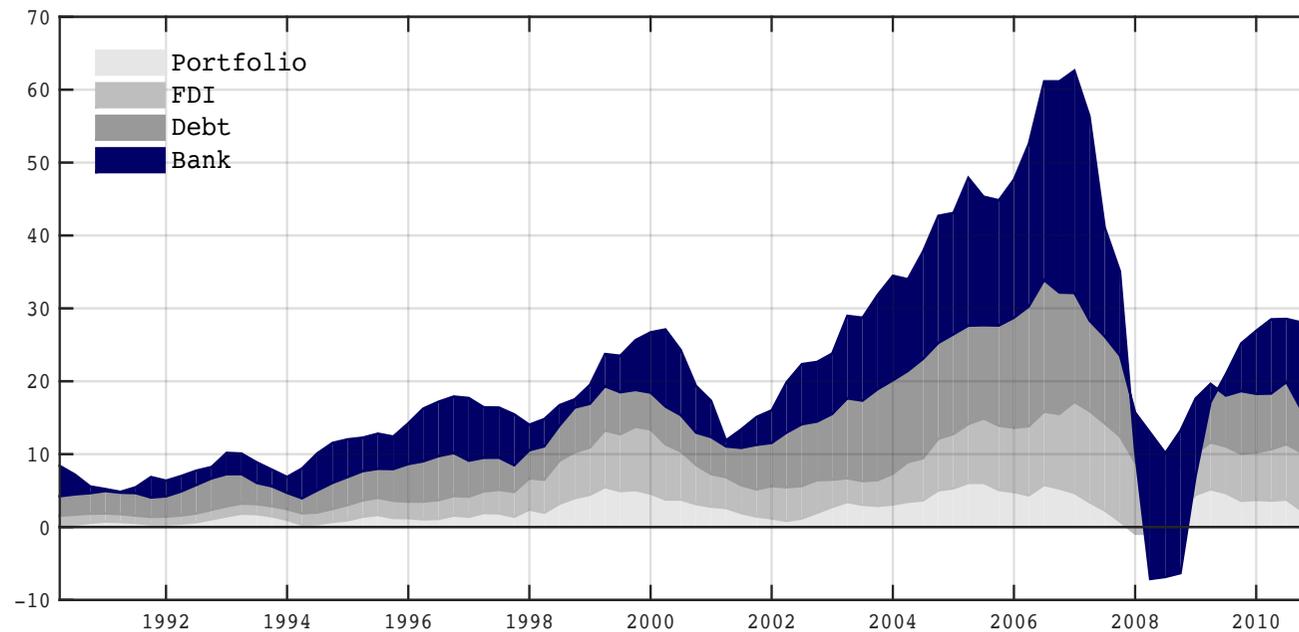
US Monetary Policy, Stock Prices, Exchange Rates and Spreads



Mechanisms

- *Balance sheet effect*: “In the financial sector, the price that falls when the supply of credit increases is the interest rate. This has the effect of pushing up asset values and appearing to strengthen the balance sheets of borrowers and intermediaries alike. Rising asset values encourage leverage and credit expansion contributing to further increases in credit growth.” Andrew Crockett (2001).
- *Composition effect due to heterogeneous “risk aversion”*: more risk-taking intermediaries have more volatile balance sheets. Importance fluctuates depending on regulation, macroeconomics and funding conditions, which are in part determined by monetary policy. Coimbra and Rey (forth.).
- *Big picture: Fluctuations in importance of specific intermediaries in markets interacting with monetary policy can be mapped into fluctuations in market wide (global) risk aversion.*

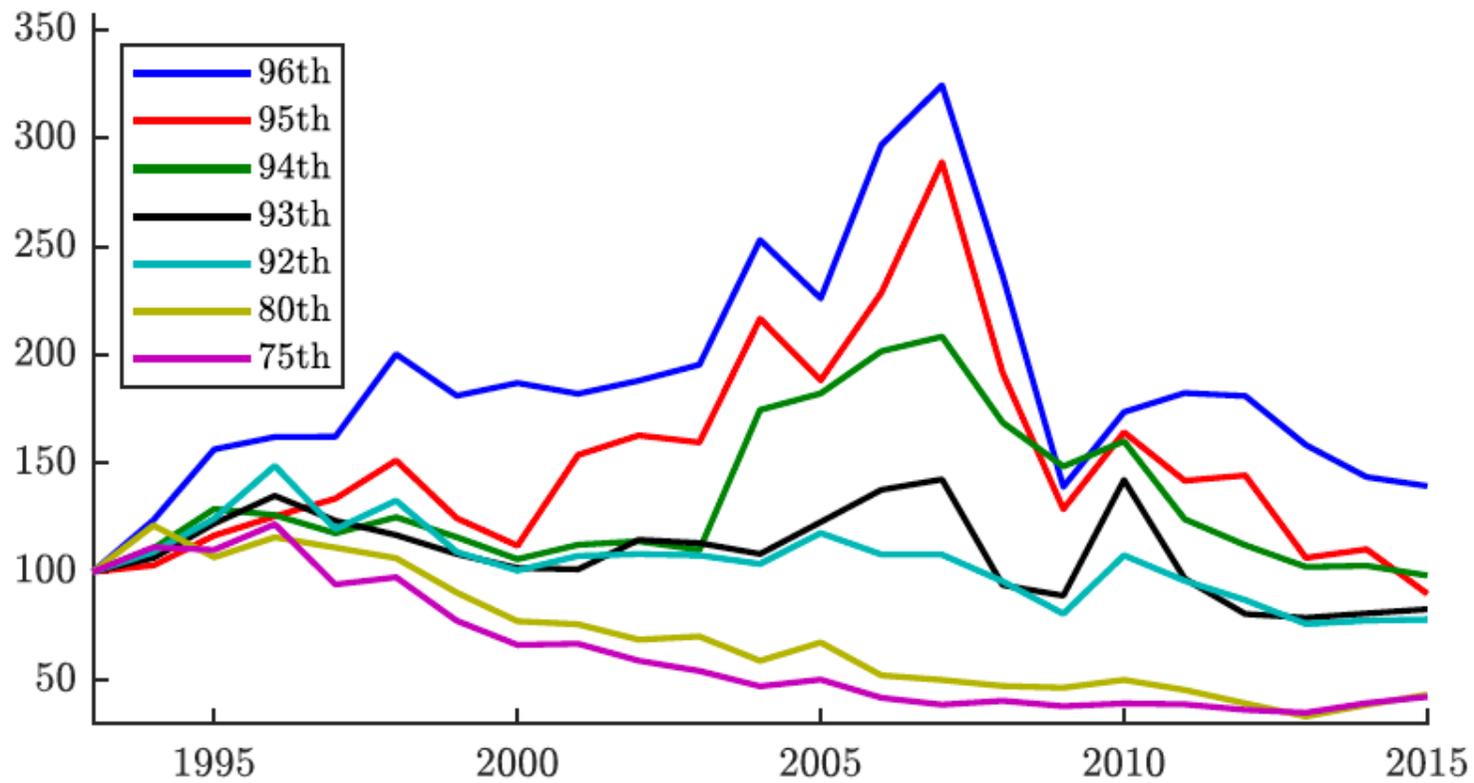
- Mix of financial intermediaries dominant in certain markets changing over time affects global risk aversion. The rise and fall of **global banks** (*risk-takers, loosely regulated*) in cross border flows.



Heterogeneity in leverage dynamics

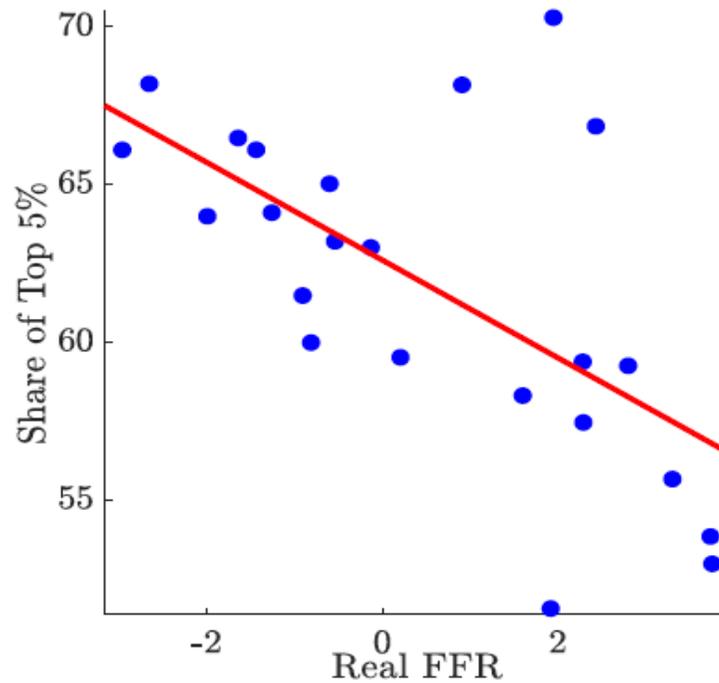
Composition effect within banks

Asset-weighted quantiles of leverage



Coimbra and Rey (forth.)

Funding costs and asset concentration



Share of assets of the top 5% most levered intermediaries in total intermediaries' assets and real FFR Nominal FFR

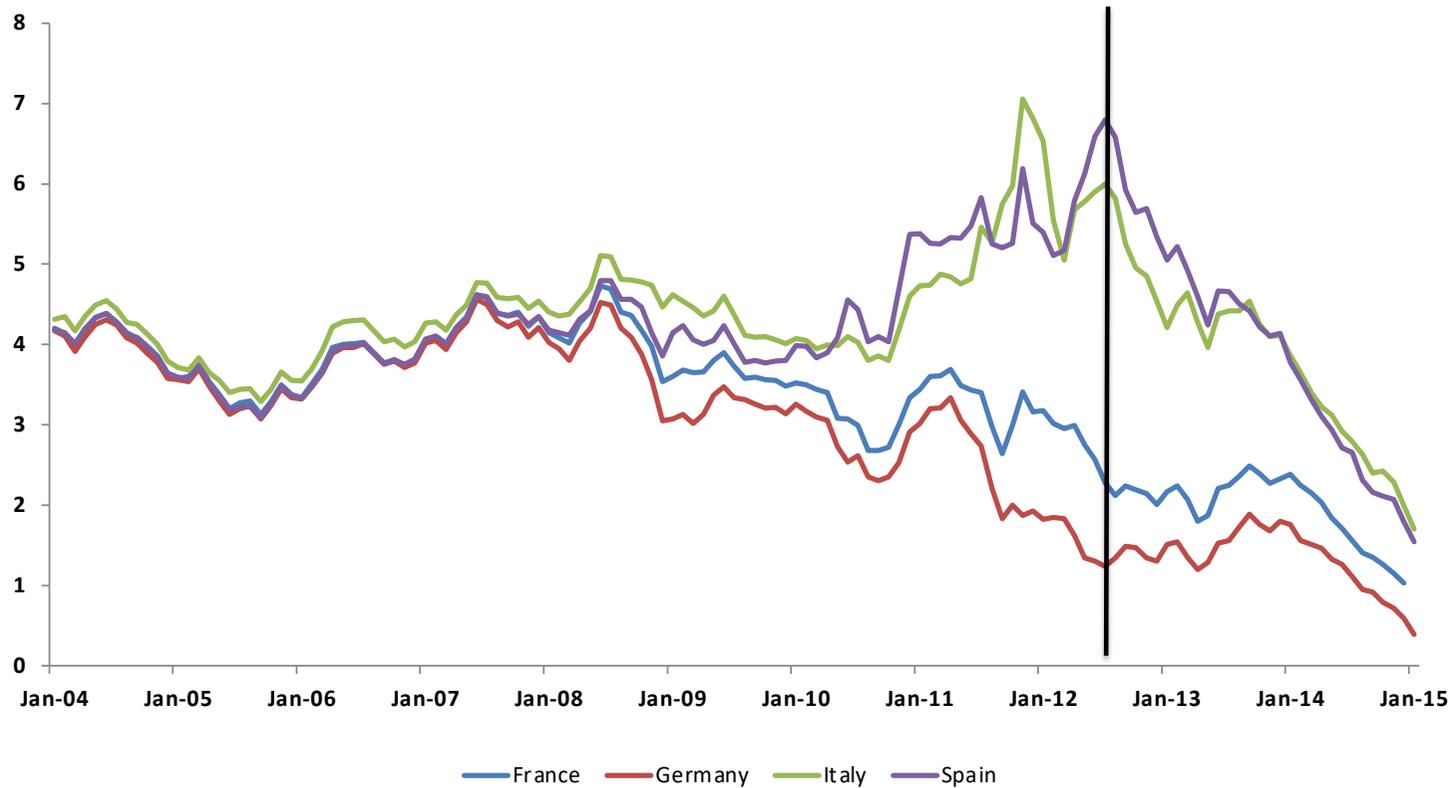
Interaction monetary policy-financial stability

- Distribution of leverage in the system is influenced by monetary policy, capital flows, « savings gluts »...
- Elasticity of credit with respect to interest rate higher for more risk-taking banks: time-varying distribution influenced by monetary policy.
- Distribution of leverage is important for asset pricing -and for macro prudential policies.

Interaction monetary policy - fiscal policy

- **ECB: one monetary policy, several fiscal authorities.**
- **Transmission:** Debt level and maturity structures are important for monetary policy transmission (Andreolli (2022))
- **Debt dynamics:** Persistent misses of the inflation target post 2008 have important consequences for the heterogeneous dynamics in debt levels. Fisherian effect on legacy debt and mispricing of long-dated debt.
- **Financial stability:** Doom-loop between banks and sovereigns, fragmentation of the euro area: self-fulfilling dynamics of crises.
- « Whatever it takes ». No bonds were purchased.
- Transmission Protection Instrument.

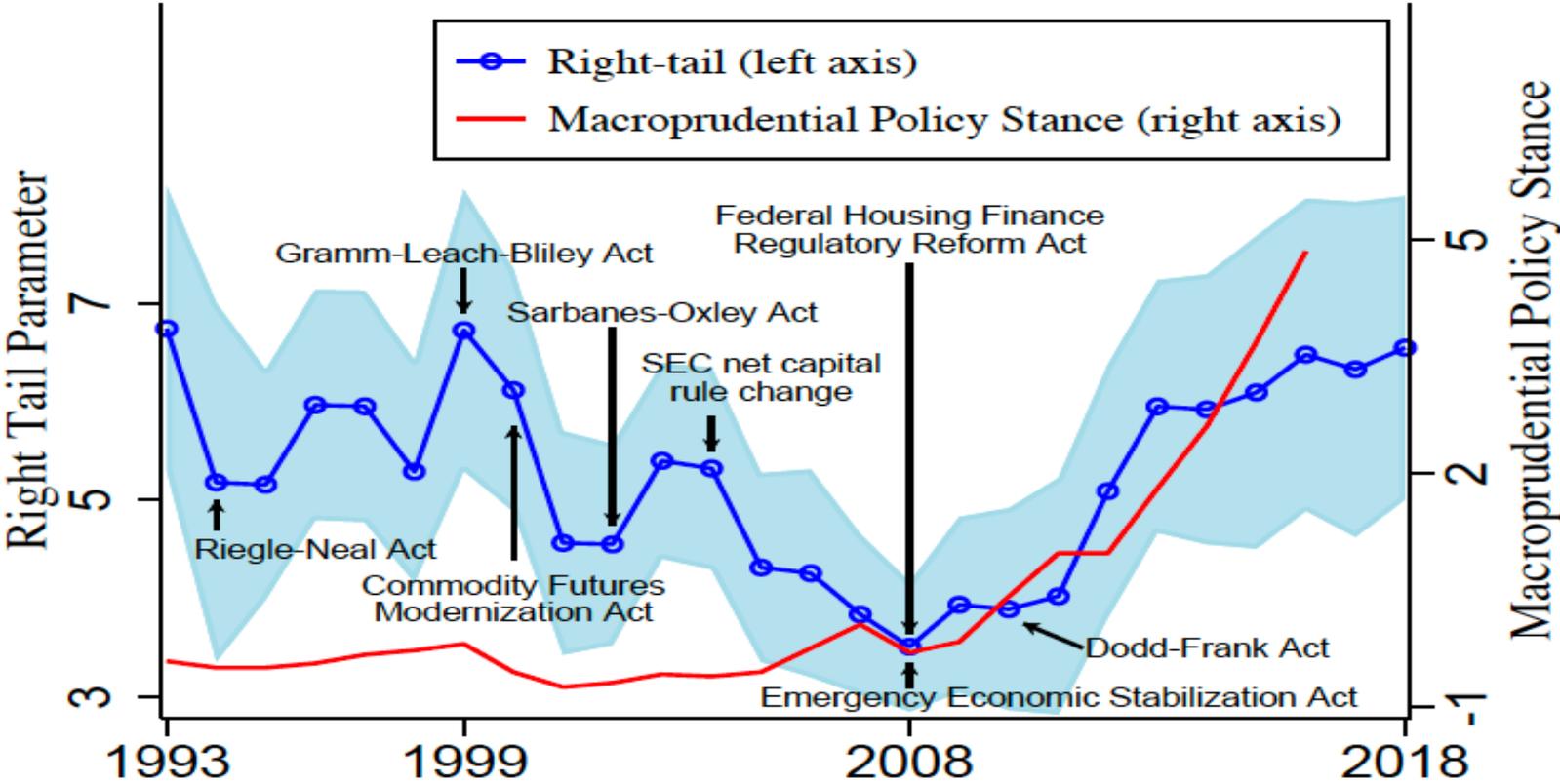
The Legendary Moment: “Whatever it takes” (Mario Draghi, July 2012)



Conclusions

- Central Banks routinely affect risk-taking and asset prices using conventional or « unconventional » tools
- Importance of models with heterogeneous financial intermediaries and limits-to-arbitrage.
- More work needed on the « risk-taking channel of monetary policy », financial cycles with booms and busts.
- More work needed on monetary – fiscal nexus

Skewness of the distribution of banks risk aversion parameters (model with a continuum of value at risk constraints). Lower means thicker tail of less risk averse.



Estimated risk aversion (blue line) with 95% intervals and macroprudential policy stance of advanced countries (red line).

Coimbra, Kim, Rey (2022)