Schumpeter, Minsky, and the FCA: Exploring the links between financial regulation, growth, and stability

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Global Financial Stability Analysis Division
Monetary and Capital Markets Department

Asset Management and Financial Stability: Recent Insights

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Motivation

- Rapid growth of asset management industry and increasing role in credit intermediation and securities markets.
  – Smaller role of banks.
  – Interaction with monetary policy.
- Financial intermediation through asset management firms has many benefits—diversification, alternative to banks—even from financial stability point of view.
- However, concerns over liquidity mismatches, run risk, leverage, and complexity (also for other intermediaries).

Outline

Overview of analytical work featured in recent GFSR issues:

- Asset management and sources of systemic risk.
- Asset management and market functioning.
- Asset management and monetary policy.
- Asset management and financial sector policies.

ASSET MANAGEMENT AND SOURCES OF SYSTEMIC RISK

Leverage and complexity are known risks

Known issues…

- Hedge funds—leverage, insolvency, complexity
- MMMF—constant net asset value NAV (= money-like liability), link to bank funding

…do not apply to other MF, ETF

- Low leverage
- Variable NAV
- Low insolvency risk: liabilities are “shares”—return and losses absorbed fully by investors

But even plain-vanilla funds present risks

Incentive problems

Information gap between managers and investors

- Benchmark based evaluation
  →Excessive risk taking + Herding
- Brand name effects

+

Run risk

First-mover advantage

- Liquidity mismatches
- Managers sell liquid assets first
- Pricing rules pass liquidation cost to second movers

Fire sales, contagion, amplification

Does mutual fund investment matter for asset price dynamics? –Yes

- Does aggregate mutual fund flows affect aggregate price index? GFSR April 2015 (Chapter 3):
  - Yes—for smaller, less liquid markets (EM assets, HY US corp. bonds)
  - Not much for US equity, US broad bond funds

- Concentrated holding by mutual fund—bad for bond spreads during 2008 crisis and 2013
  - The share held by the 5 largest mutual fund investors for each bond

What drives run risk?

- Drivers of fund flows
  - Market factors (VIX, benchmark), and fund’s own performance matter
    - Chasing past returns
    - Flight to quality
  - Some brand name effects
    - Limited macro impact so far

What can mitigate run risk?
Fees are effective in dampening redemptions

GFSR April 2015 (Chapter 3):

- Redemption fees reduce net outflows for EM funds but not for US bond funds.

3. Redemptions during Stress Times, by Redemption Fee Levels

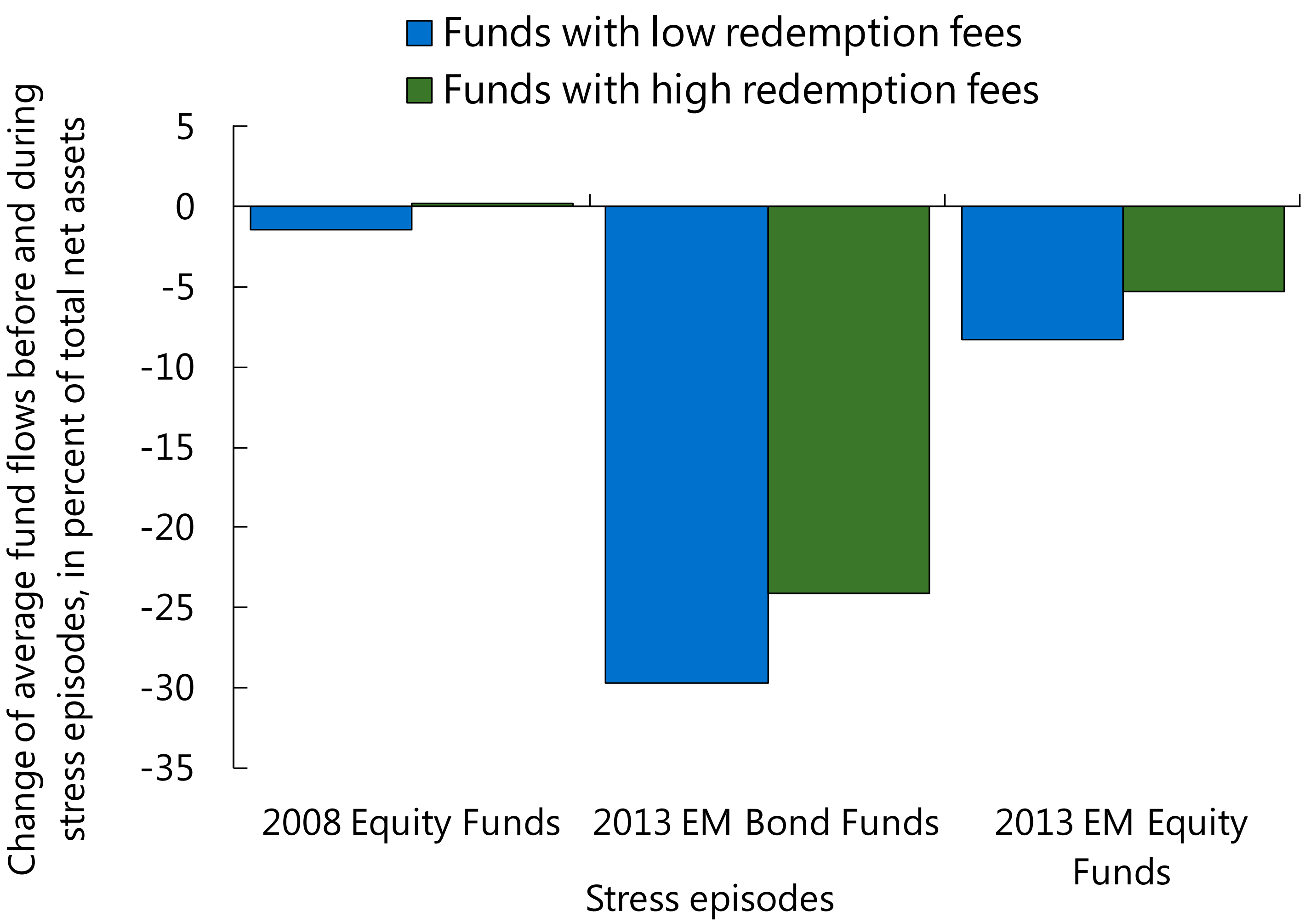


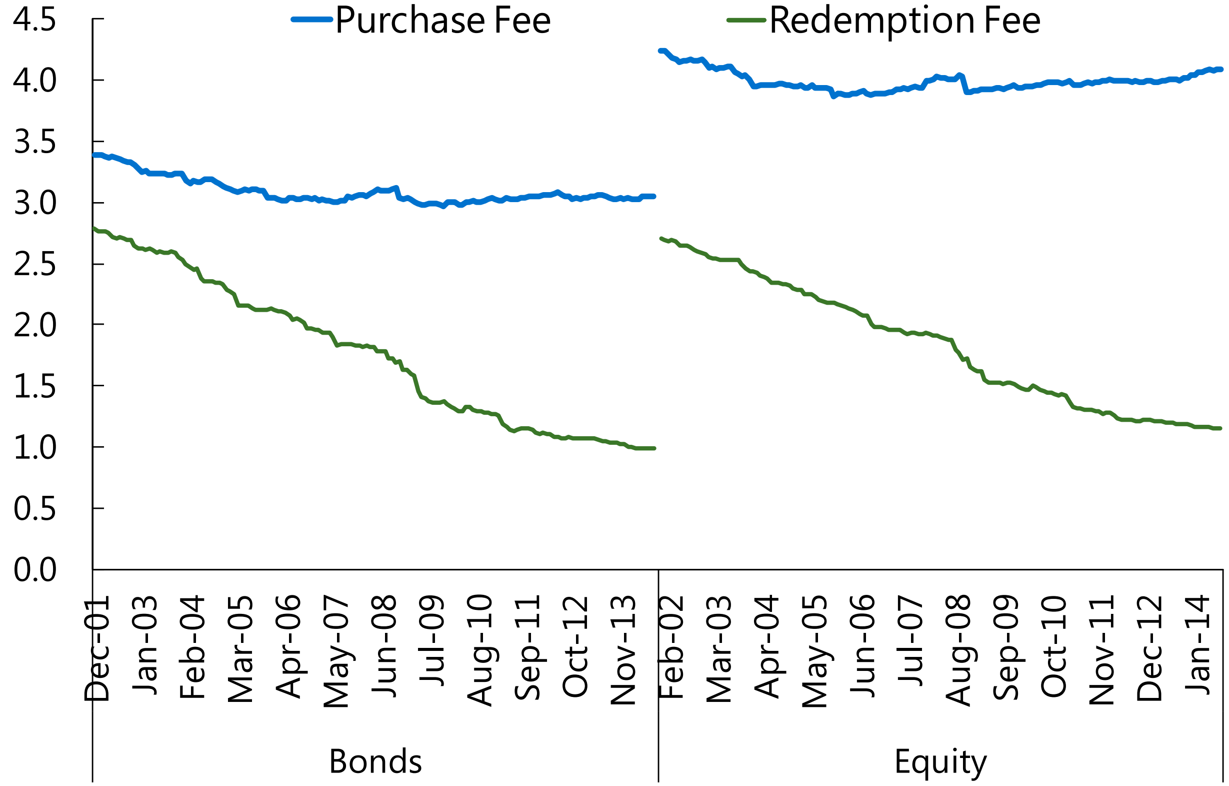
Chart: difference between average flows during 9/2008-12/2008 and 5/2013-9/2013.

… but fees have been declining

GFSR April 2015 (Chapter 3):

- Competitive pressures and transparency requirements have driven down fees.
- Difficult for investment funds to raise fees on their own.

4. Trend of Mutal Fund Fees
(Simple average, in percent)



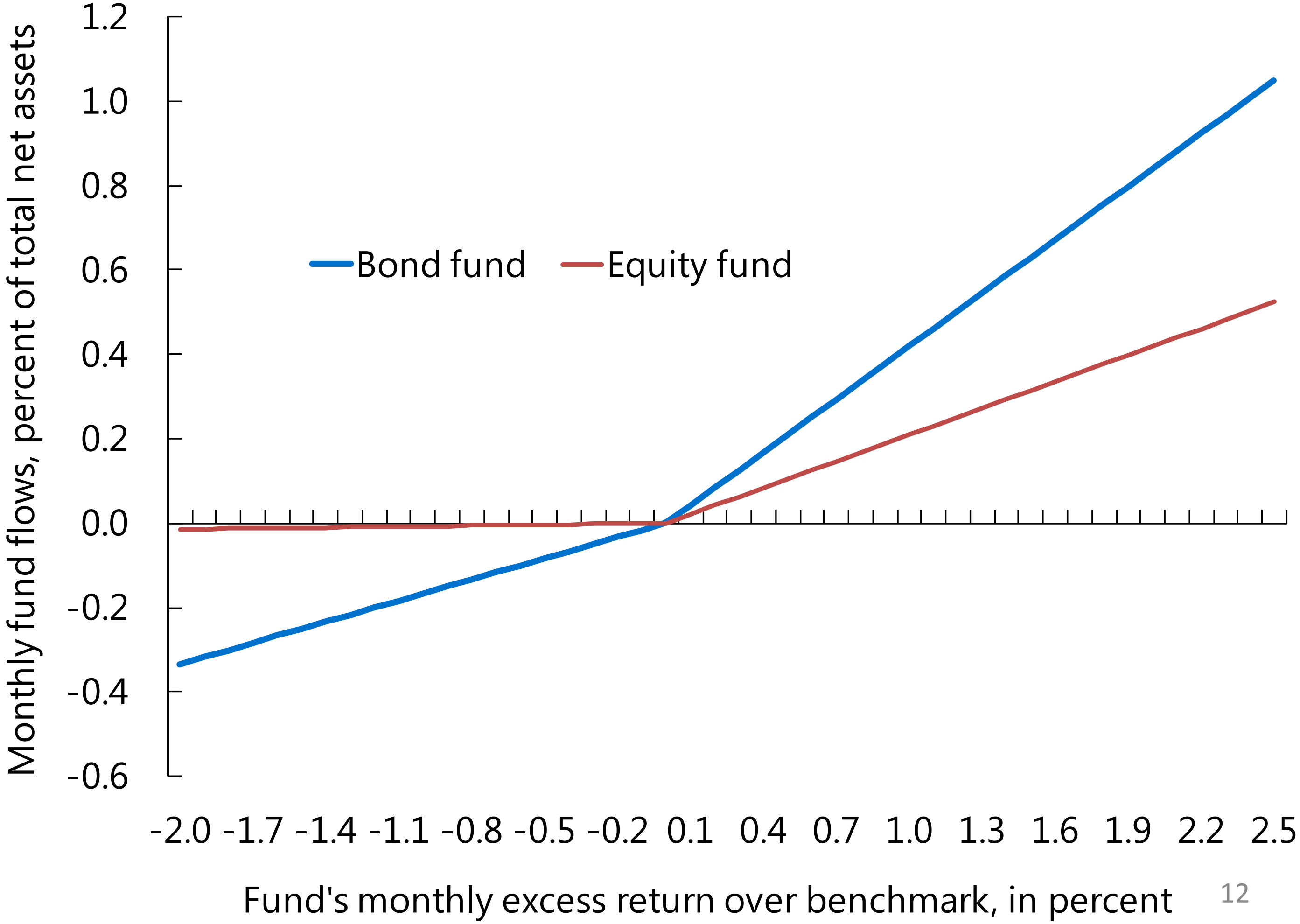
Does asset managers amplify risks? (1)
Incentives for excessive risk taking

GFSR April 2015 (Chapter 3):

- Investor pour money into funds with strong recent performance.

$$
\begin{aligned}
\textit{Fund flows}_{it} = {} & \beta_0\, \textit{Benchmark Performance}_{jt-1} \\
& + \beta_1 \textit{VIX}_t + \beta_2 \textit{HIGH\_VIXD}_t \\
& + \beta_3 \textit{VIX}_t \times \textit{HIGH\_VIXD}_t \\
& + \lambda \textit{Fund Characteristics}_i \\
& + \delta_1 \textit{Low}_{i,t-1} + \delta_2 \textit{Mid}_{i,t-1} \\
& + \delta_3 \textit{High}_{i,t-1},
\end{aligned}
$$

US Mutual Funds: "Convex" fund flow-performance relationship

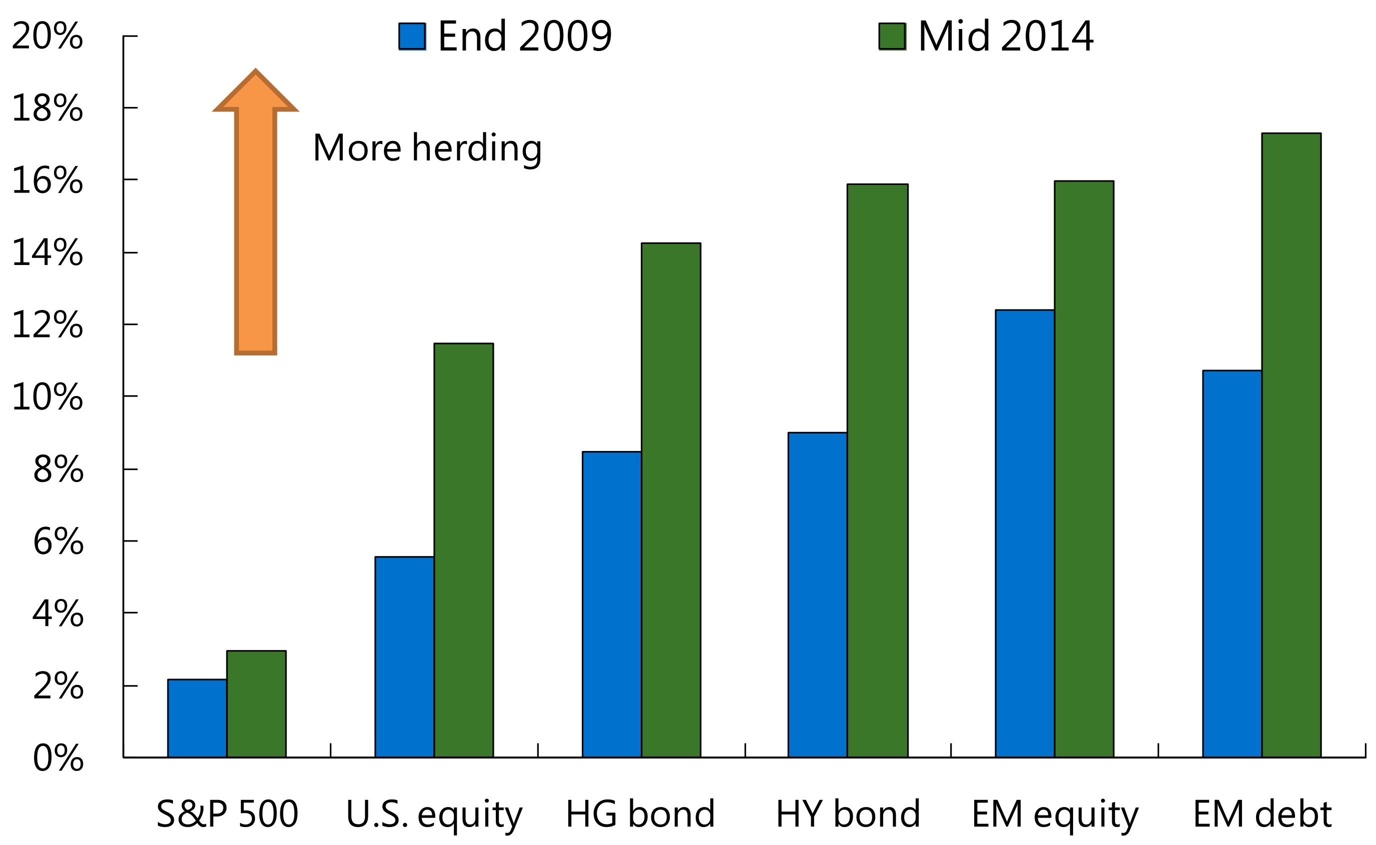


Does asset managers amplify risks? (2) Herding

GFSR April 2015, Chapter 3:

- Herding among US funds increased (measure by Lakonishok et al. 1992).
- Retail funds show more herding:
  - ✓ More difficult for retail investors to monitor fund manager performance?

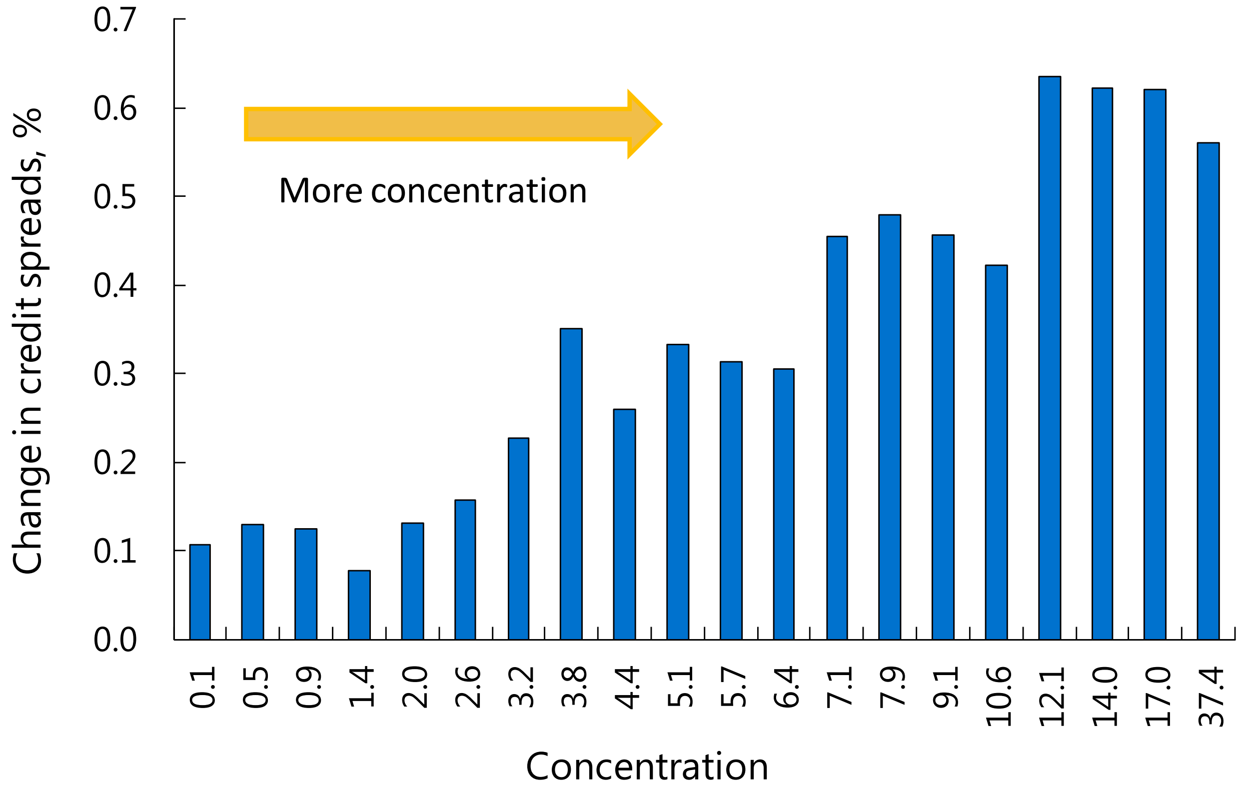
1. Average Measure of Herding by Security Type
(Mean across securities, four-quarter average)



Asset managers can have large market impact

- Mutual fund flows affect asset returns in smaller, less liquid markets.
- Bond prices decline more in stress periods when ownership by mutual funds is higher or concentrated.

Bonds Issued by Emerging Market and Developing Economies, 2013:Q1 and 2013:Q2



GFSR April 2015, Chapter 3

Investment focus matters for systemic risk…

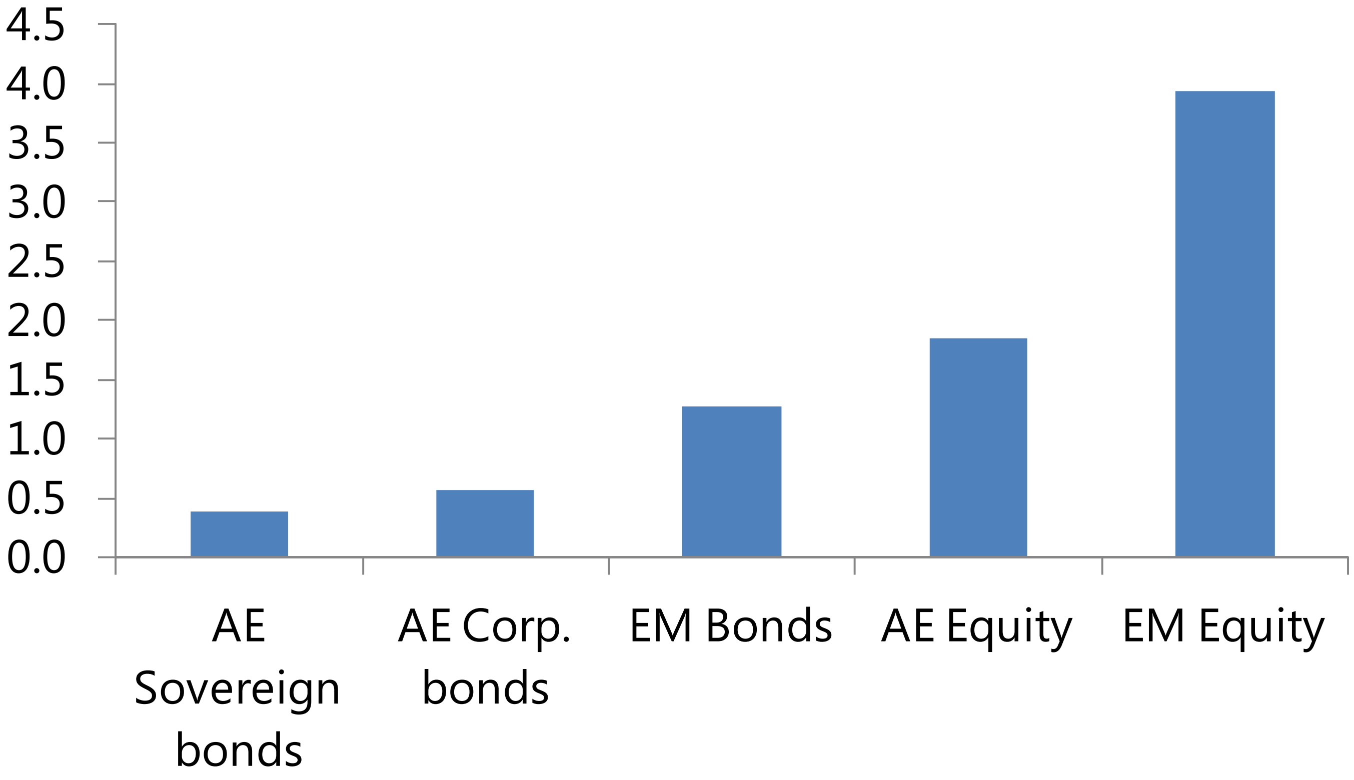
GFSR April 2015, Chapter 3:

- Contribution to systemic risk measured by *ΔCovar* (Adrian & Brunnermeier 2011).
- Specification:

$$\Delta CoVaR_{ij} = Constant_j + \alpha VaR_i + \gamma Logsize_i + \delta Return_i + \varepsilon_i.$$

- Depends more on investment focus than on size.

1. Average Contribution to Systemic Risk, by Investment Focus (in percent)



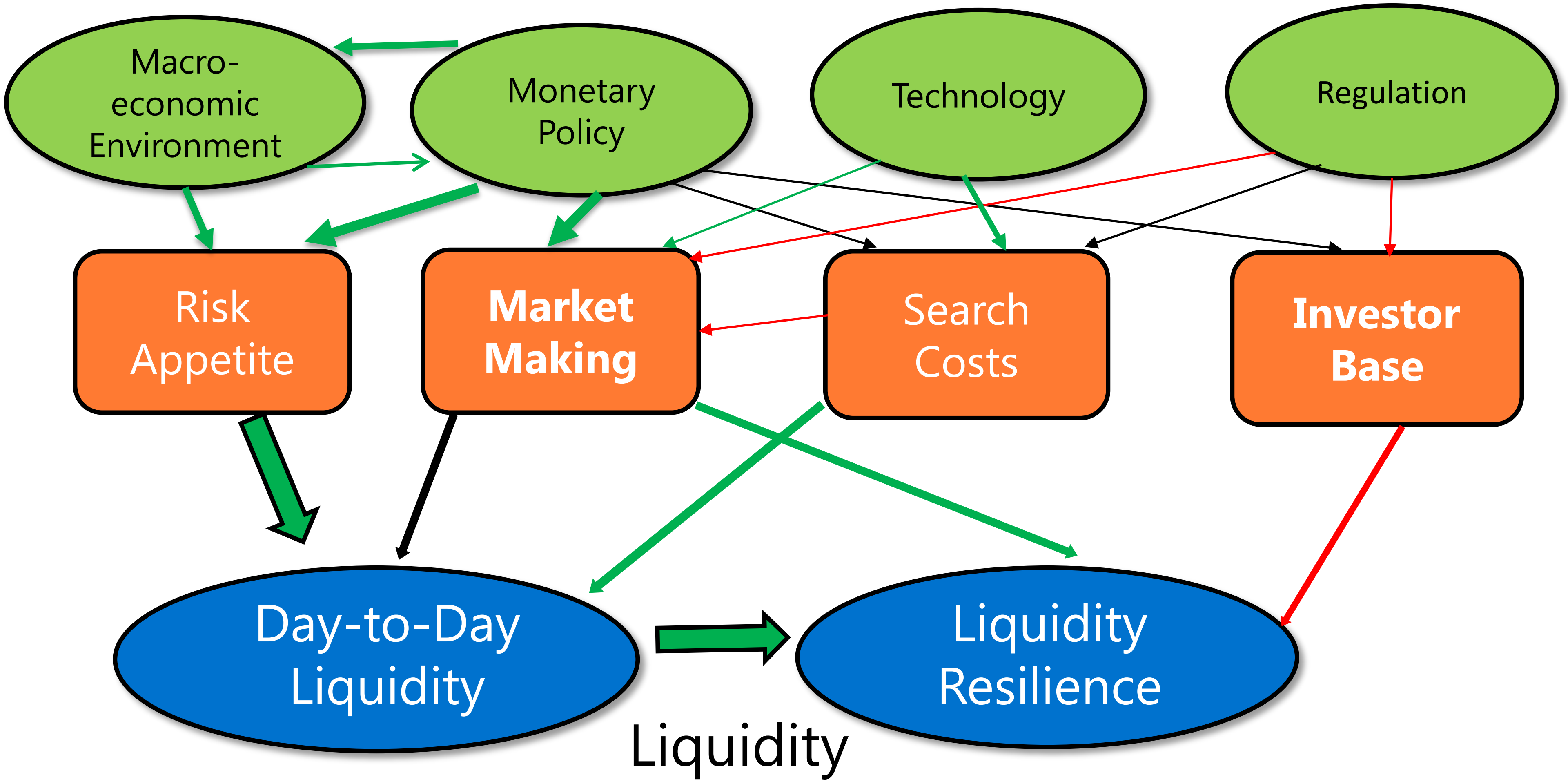
ASSET MANAGEMENT AND MARKET FUNCTIONING

Changes in market landscape

GFSR October 2015, Chapter 2:

- Reduction in the role of banks as market makers.
- Increased presence of central banks in securities markets through asset purchases/quantitative easing.
- Increased presence of asset managers.

Asset managers, as part of the investor base, affect market liquidity and of its resilience



Banks' reduced balance sheet space affects market liquidity

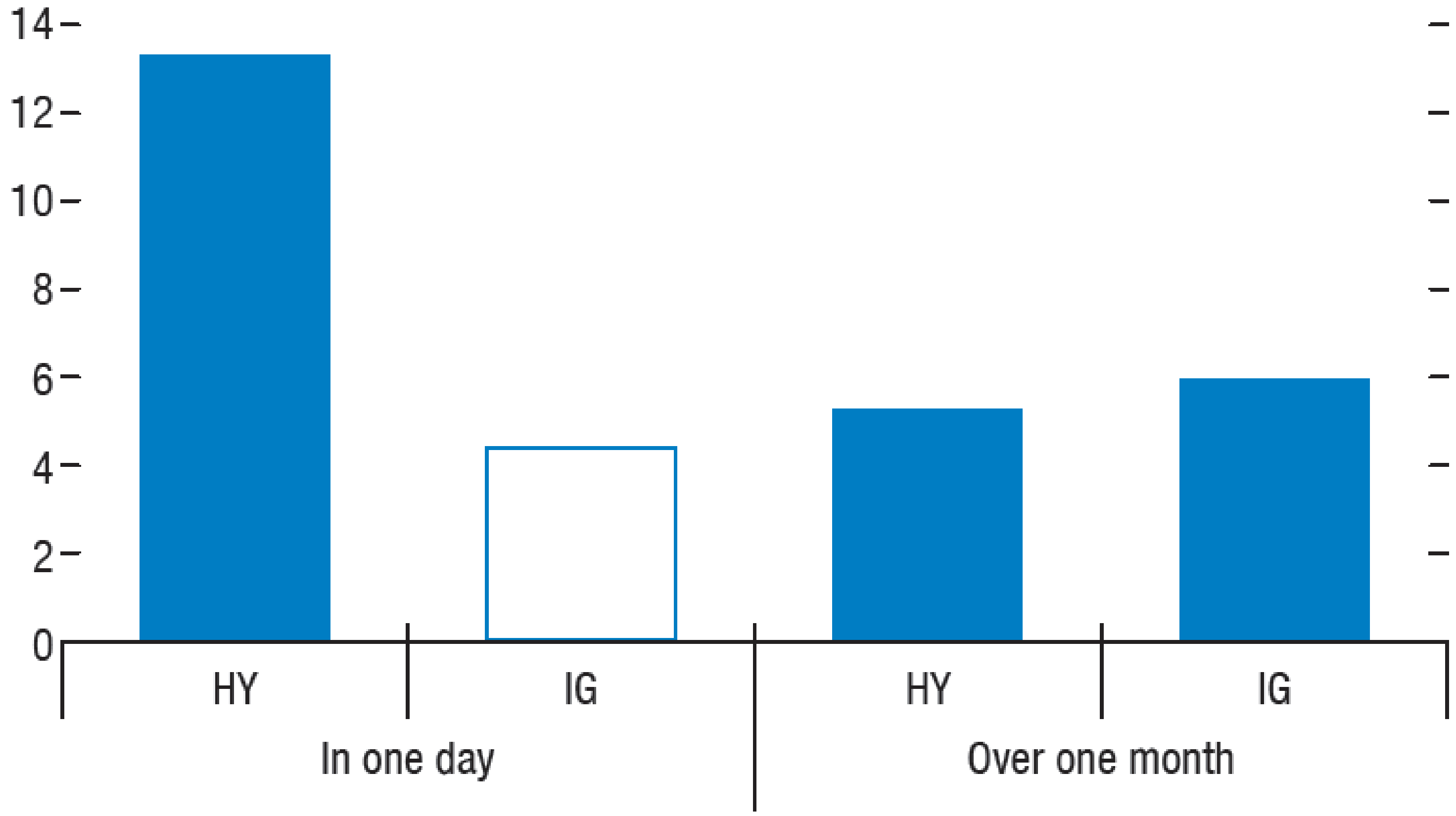
GFSR October 2015, Chapter 2

- Banks reduced presence in market making.
- Specification:

$$LIQ_t = \gamma_0 + \gamma_1\ Auction_{t-1} + \Gamma_2 X_{t-1} + \nu_t$$

- Reduction in banks' balance sheet space associated with lower market liquidity.

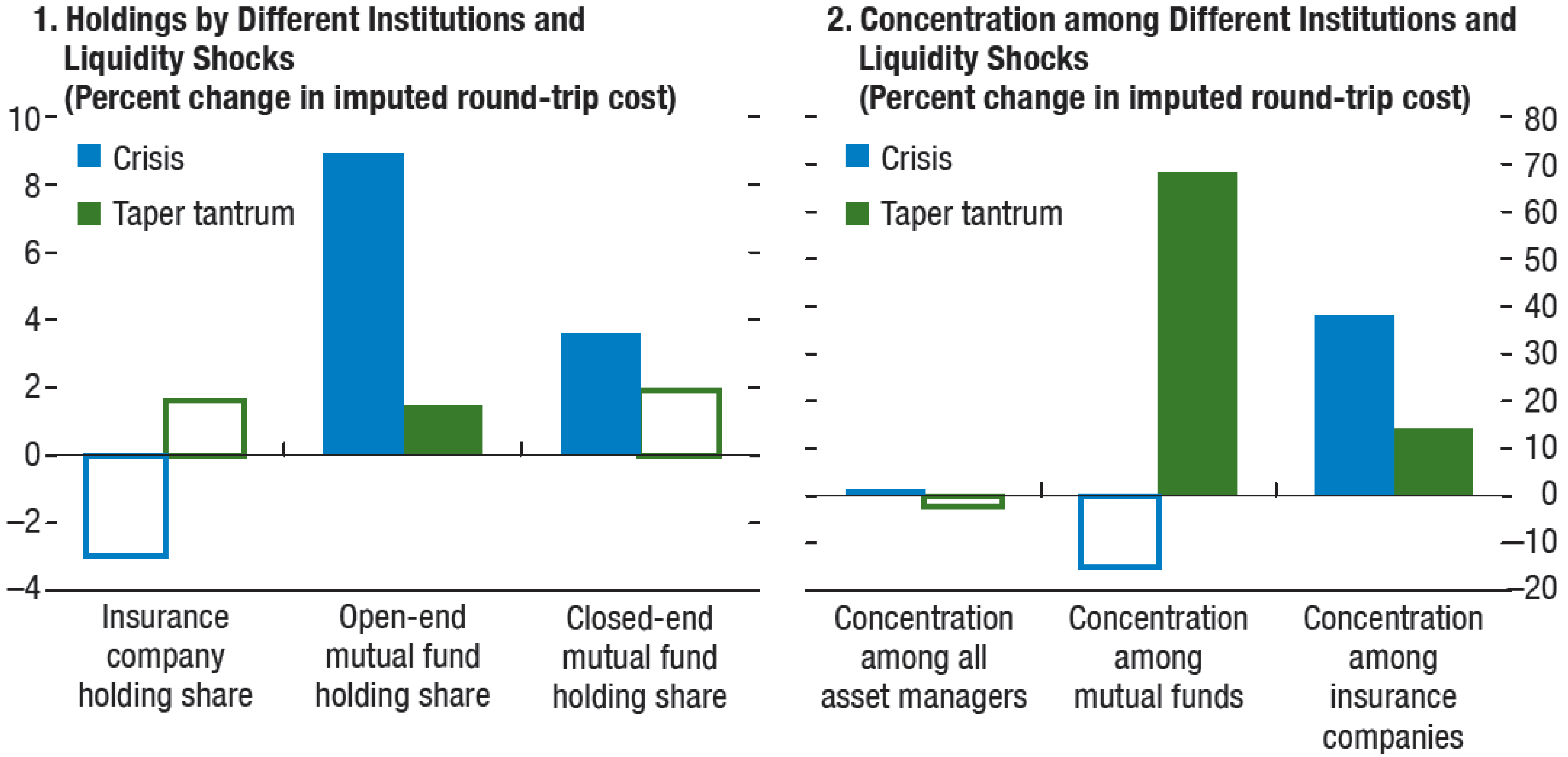
U.S. Treasury Auctions and Change in Corporate Bond Liquidity
(Percent increase in imputed round-trip costs)



Asset managers and the resilience of market liquidity:

GFSR October 2015, Chapter 2:

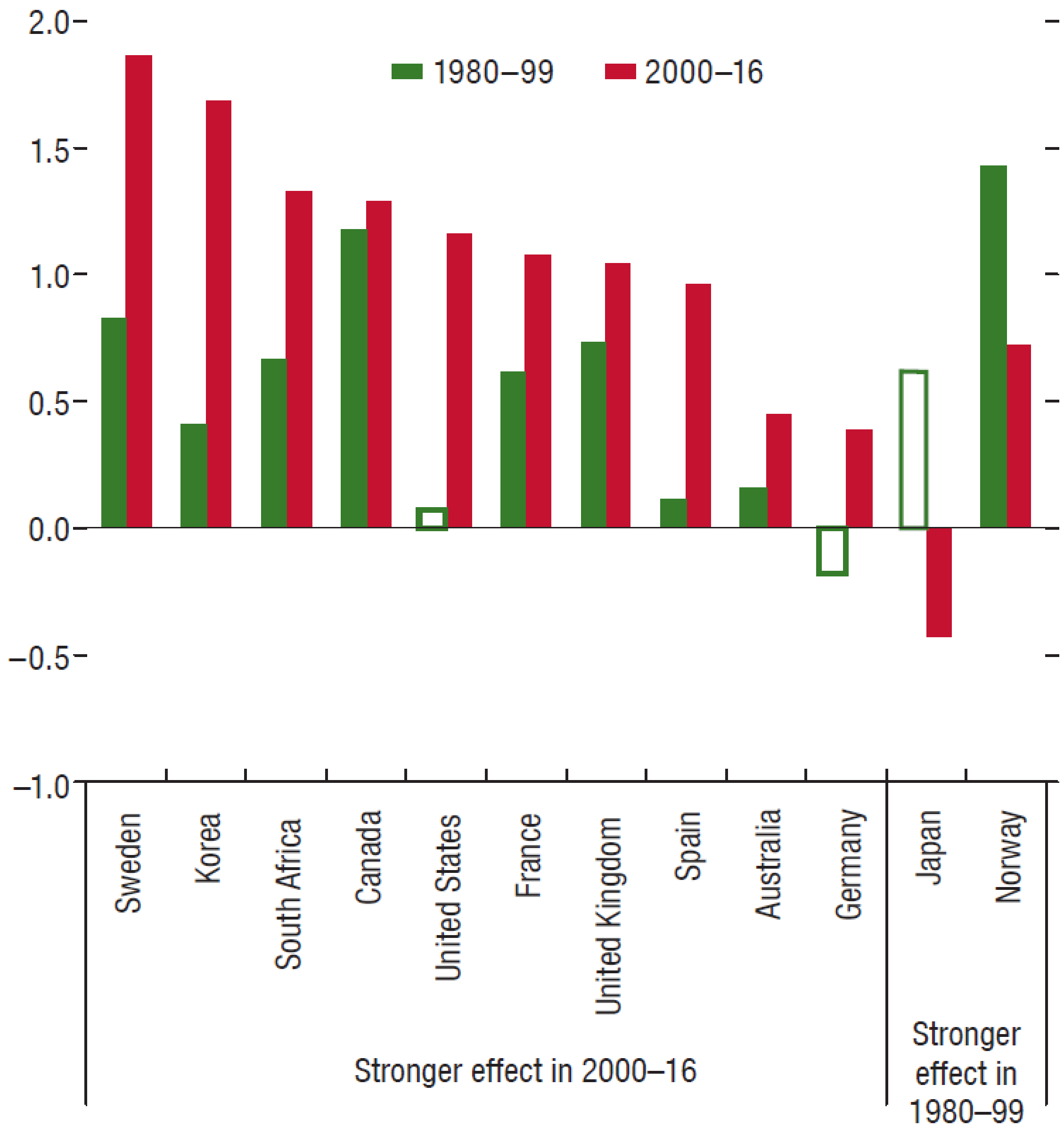
- Higher holdings by mutual funds and higher concentration of ownership associated with less-resilient market liquidity.



ASSET MANAGEMENT AND MONETARY POLICY

Monetary Transmission has Strengthened

- Based on a VAR of log real GDP, log GDP deflator, log NEER, and monetary policy rate.
- Robust to alternative specifications and monetary policy measures (U.S.).



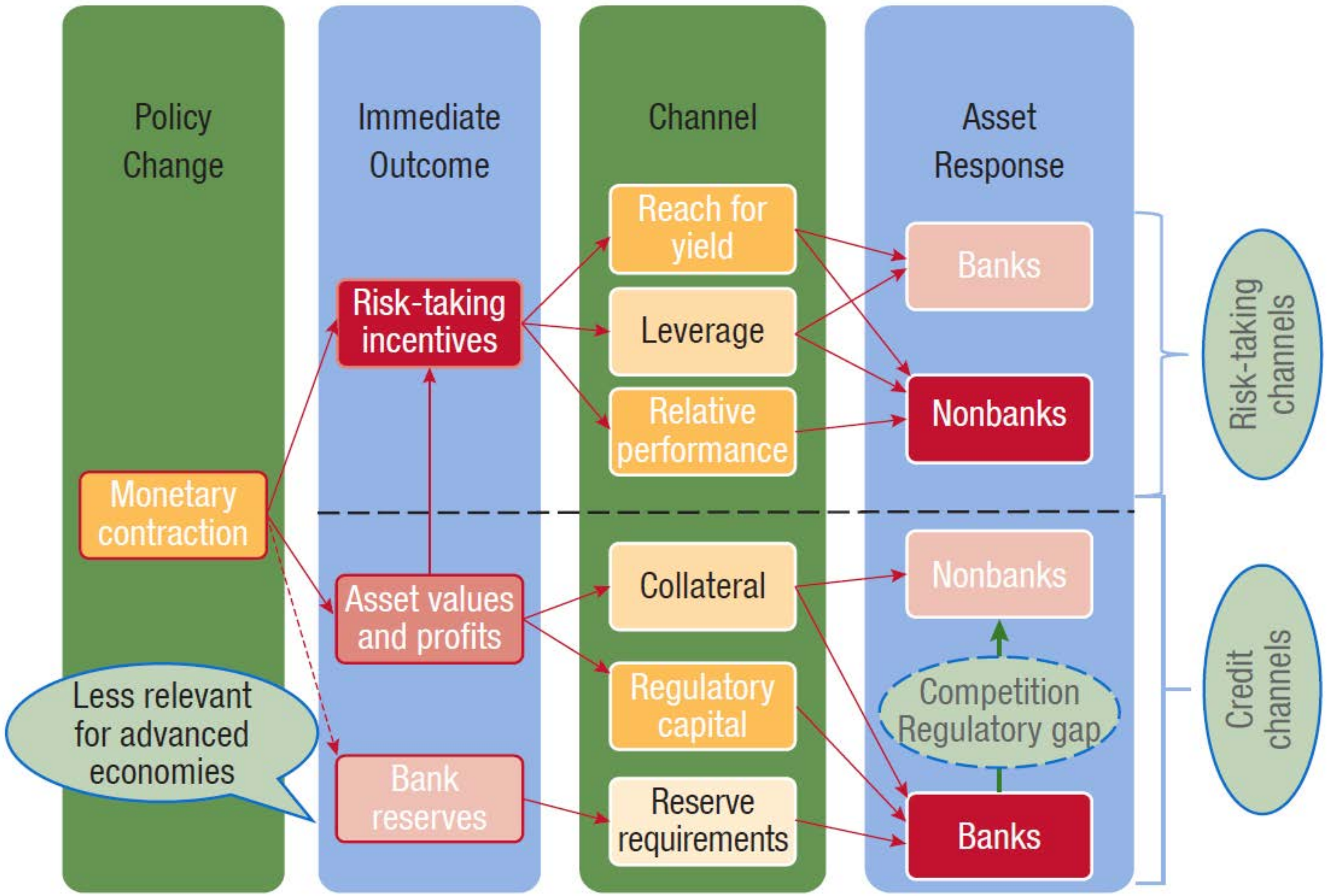
GFSR October 2016, Chapter 2

Possible reasons for changes in transmission

- Changes in the conduct of monetary policy and expectations.
- Increased economic and financial integration.
- **Changes in the way financial markets work.**

The focus of this section (GFSR October 2016, Chapter 2)

Channels of Monetary Policy Transmission



Emphasis on two mechanisms:

- Frictions affecting the supply of credit;
- **Risk-taking channel.**

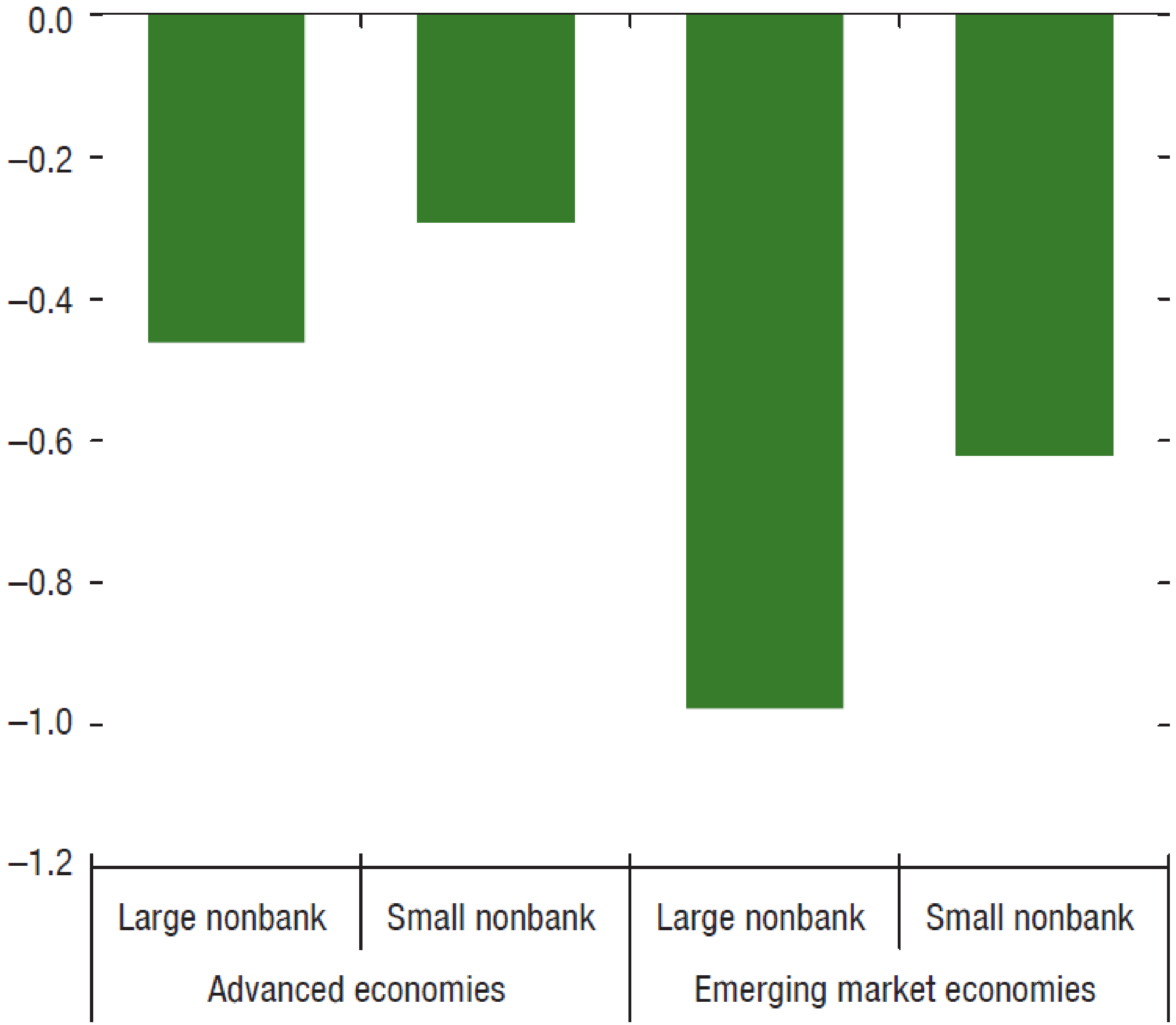
Empirical Strategy

- Aggregate analysis of monetary policy changes—stylized facts:
  - Exploratory analysis: PVAR with four variables: *Y*, *P*, *NEER*, and *i*.
  - Detailed analysis: VAR country-by-country including total assets owned by financial sector (banks, insurance and pension, and OFI).

- Firm-level analysis—improve identification:
  - Microanalysis of the behavior of financial firms:
    - Mutual fund allocations: changes in response to monetary policy changes.

Transmission Seems Stronger When Nonbanks More Important

But differences are small.

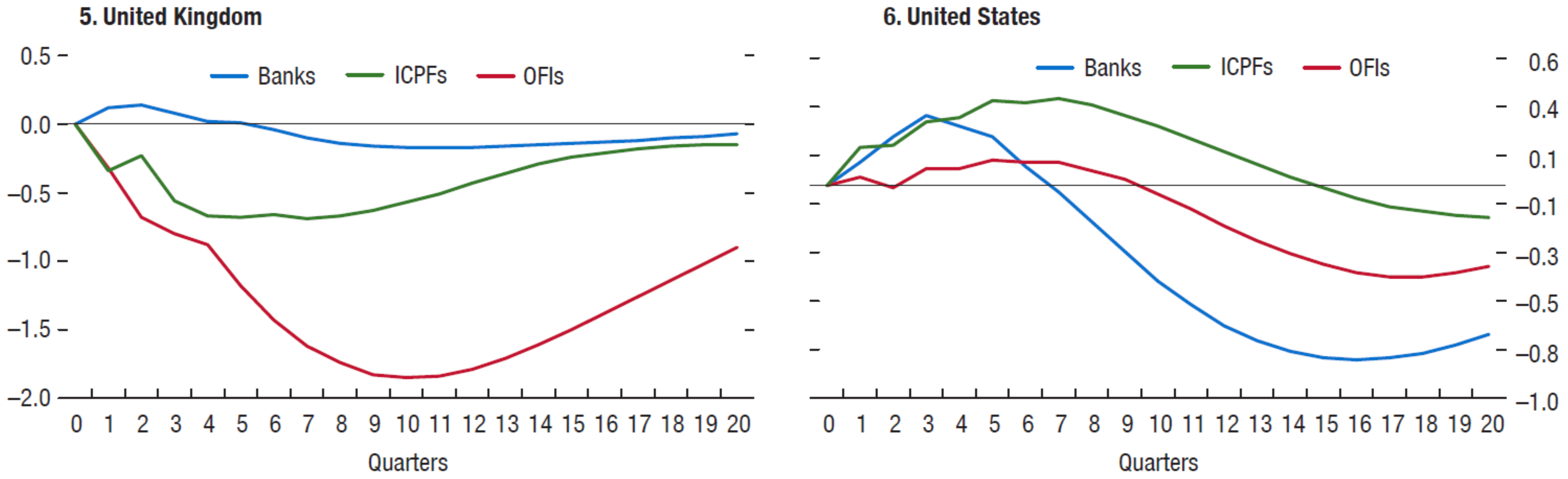


GFSR October 2016, Chapter 2.

Aggregate Analysis—UK vs. USA

GFSR October 2016, Chapter 2:

- Responses of OFI similar to banks, but often more intense.
- Different composition of OFI across countries.



Mutual Funds Increase Risk Taking in Response to Monetary Expansion

GFSR October 2016, Chapter 2:

- Following a 1 p.p. increase in U.S. shadow monetary policy rate (Wu and Xia 2016), mutual funds increase allocation to:
  - High-yield bonds by 4 p.p.
  - Long-term bonds by 9 ½ p.p.
- Evidence of risk-taking channel?

ASSET MANAGEMENT AND FINANCIAL SECTOR POLICIES

Recommendations from previous GFSRs

- More “hands-on” microprudential supervision of risks
  – Regulators’ own risk analysis, stress testing
  – Better data (derivatives, securities lending)

- Incorporate macroprudential views (focus on systemic risk)

Recommendations

- Improve liquidity requirements
  - Better definition of “liquid assets”

- Reduce first mover advantage
  - (Minimum) redemption fees for funds investing in illiquid assets
  - Adjust technical aspects of fund share pricing rules

Thank you

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Appendix

- All material sourced from:
  - GFSR April 2015, Chapter 3
  - GFSR October 2015, Chapter 2
  - GFSR October 2016, Chapter 2

- Check chapters for original data sources.