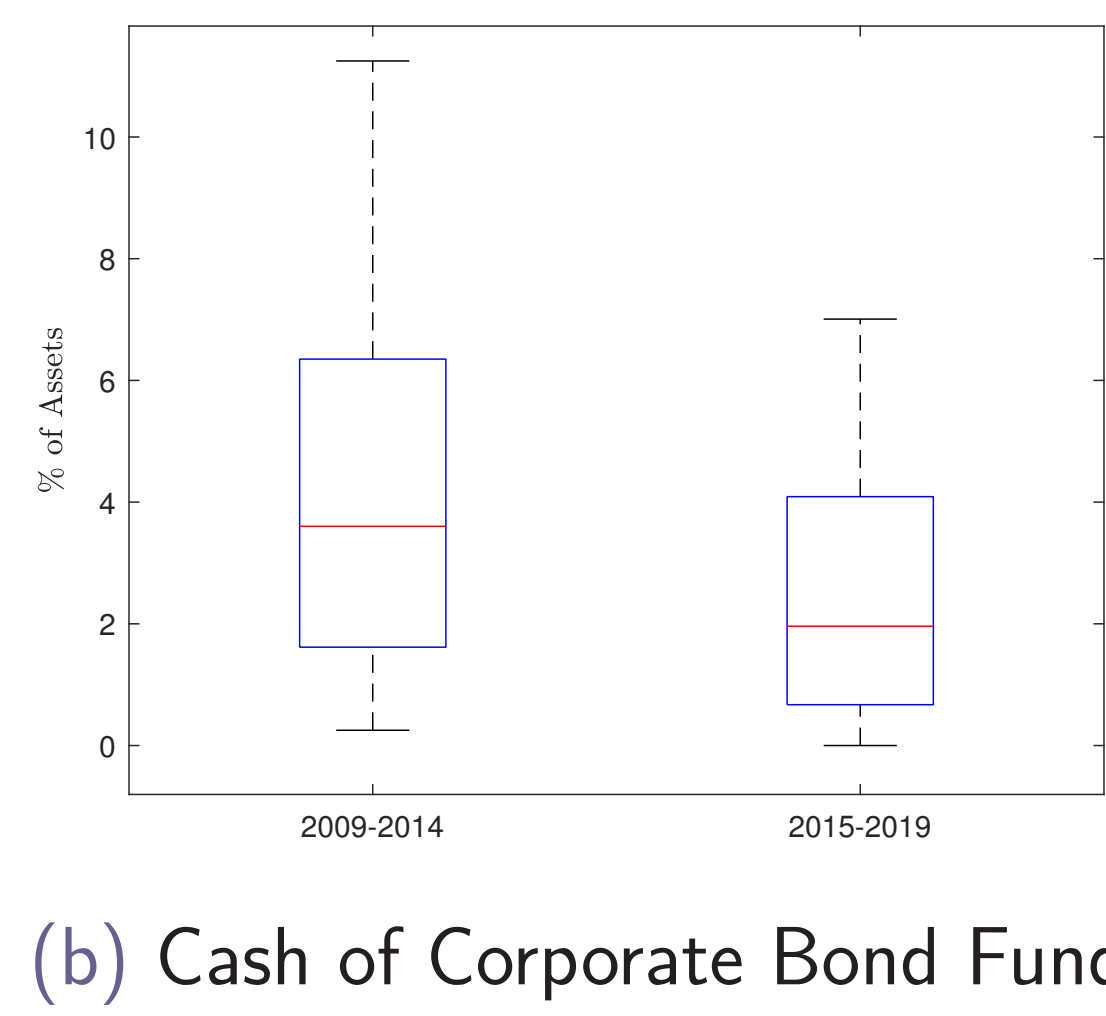
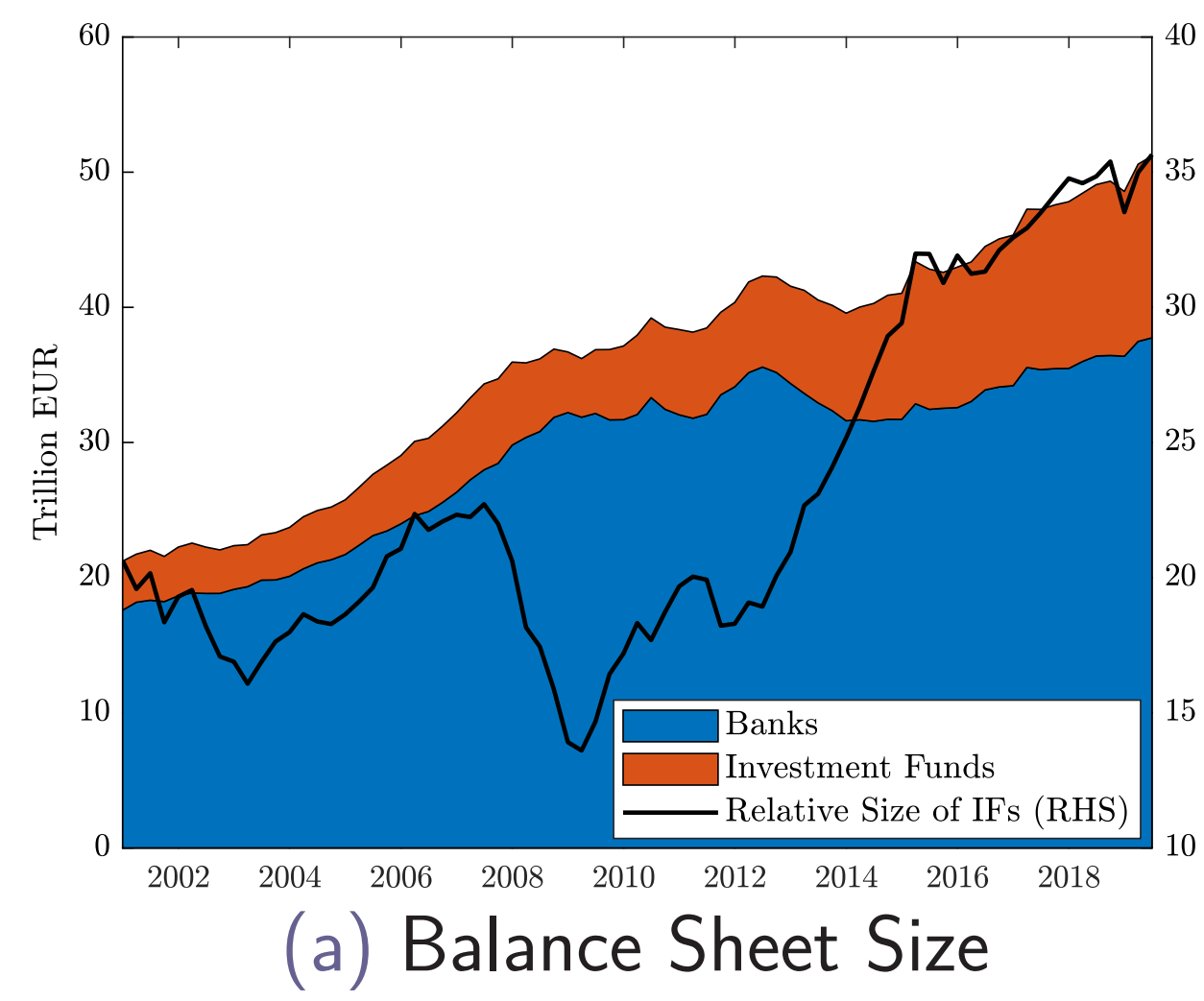


Macprudential Regulation of Investment Funds in a DSGE Framework

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Background and Motivation: Investment Funds (IF)

- Considerable growth and high share in financial intermediation.
- Reduction of liquid assets despite risk from short-term redemptions \Rightarrow liquidity risk.



The Paper in a Nutshell

Policy discussion: liquidity regulation to increase resilience and contain spillovers to the real economy.

This paper:

- Empirical evidence about the macro relevance of the investment fund sector.
- Dynamic stochastic general equilibrium model (DSGE) to study the macroeconomic effects of...
 - liquidity risk in the IF sector.
 - macroprudential liquidity regulation of IFs.

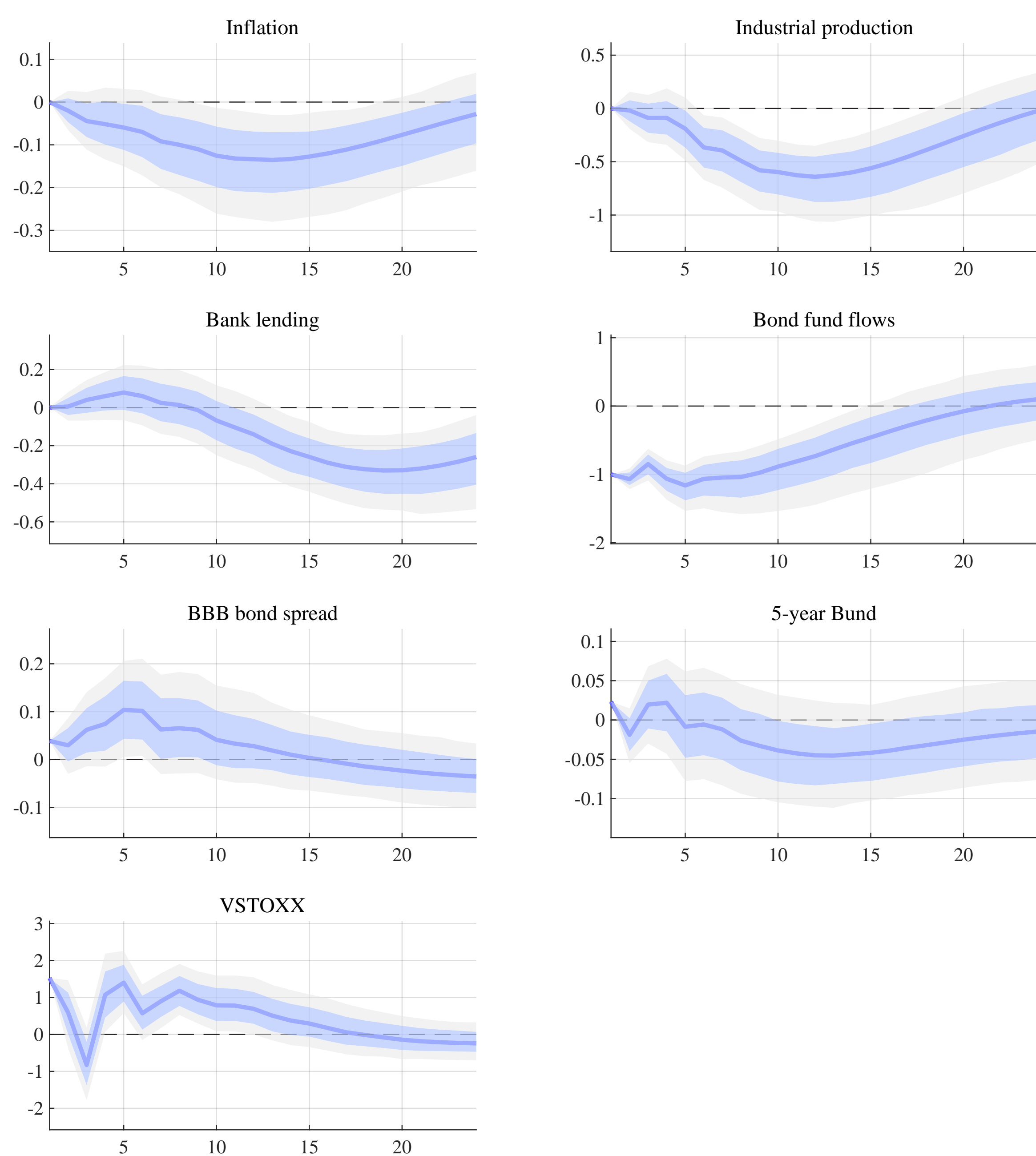
Mechanism:

- Pecuniary externality \Rightarrow inefficiently low liquidity buffers.
- Forced asset sales imply resource losses & limit IF intermediation.
- Regulatory trade-off: address externality vs. reduce bank liquidity creation for households.



Empirical Analysis of Investment Fund Outflows

Approach: Vector autoregression to estimate the effects of fund outflows on macro variables (monthly April 2007 - June 2019).



Impulse response functions to a 1 percentage point shock to bond fund flows obtained from a structural VAR model identified via Cholesky ordering. The blue (grey) areas show 68% (90%) confidence intervals.

Result: A decrease in fund financing leads to persistent adverse effects on production and inflation.

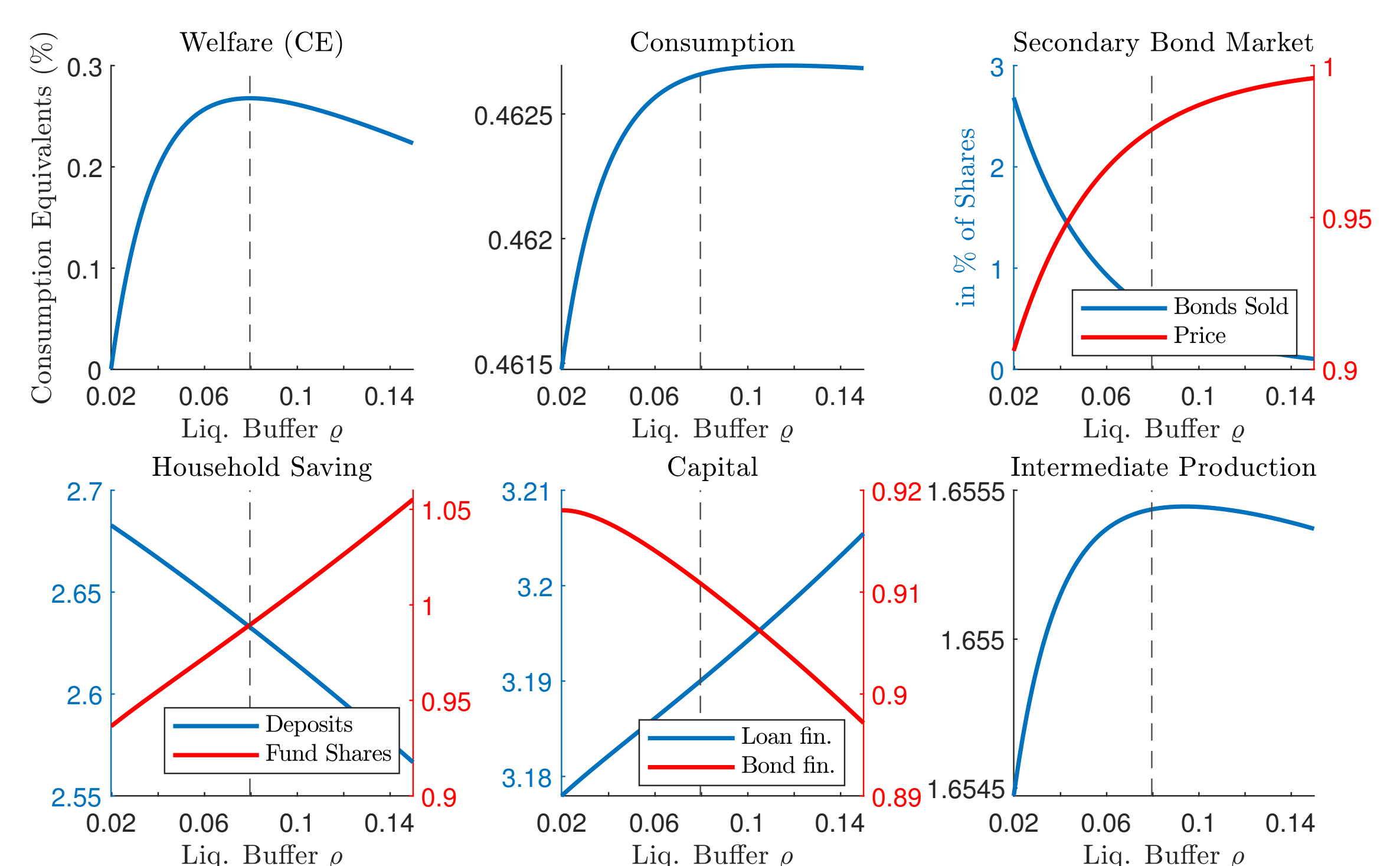


RBC Model with Heterogeneous Financial Sector

- **Households**
 - derive utility from consumption, leisure, and deposits.
 - save in bank deposits and investment fund shares.
 - purchase bonds on a secondary market subject to management cost.
- **Banks** finance with deposits and invest into loans. They are subject to a capital ratio target.
- **Investment funds** invest into bonds or deposits and finance with shares.
 - Sub-period I: if stochastic redemptions exceed deposits (liquidity) \Rightarrow forced asset sales: liquidity cost.
 - Sub-period II: portfolio choice does not internalize the full impact of sales on asset prices (pecuniary externality) \Rightarrow inefficiently low voluntary buffer.
- **Firms** combine capital and labour.
 - Entrepreneurs finance with loans or bonds to finance capital.
 - Loan- & bond-financed inputs aggregated by intermediate good producer.
- **Regulation** forces IF to hold a minimum cash buffer.

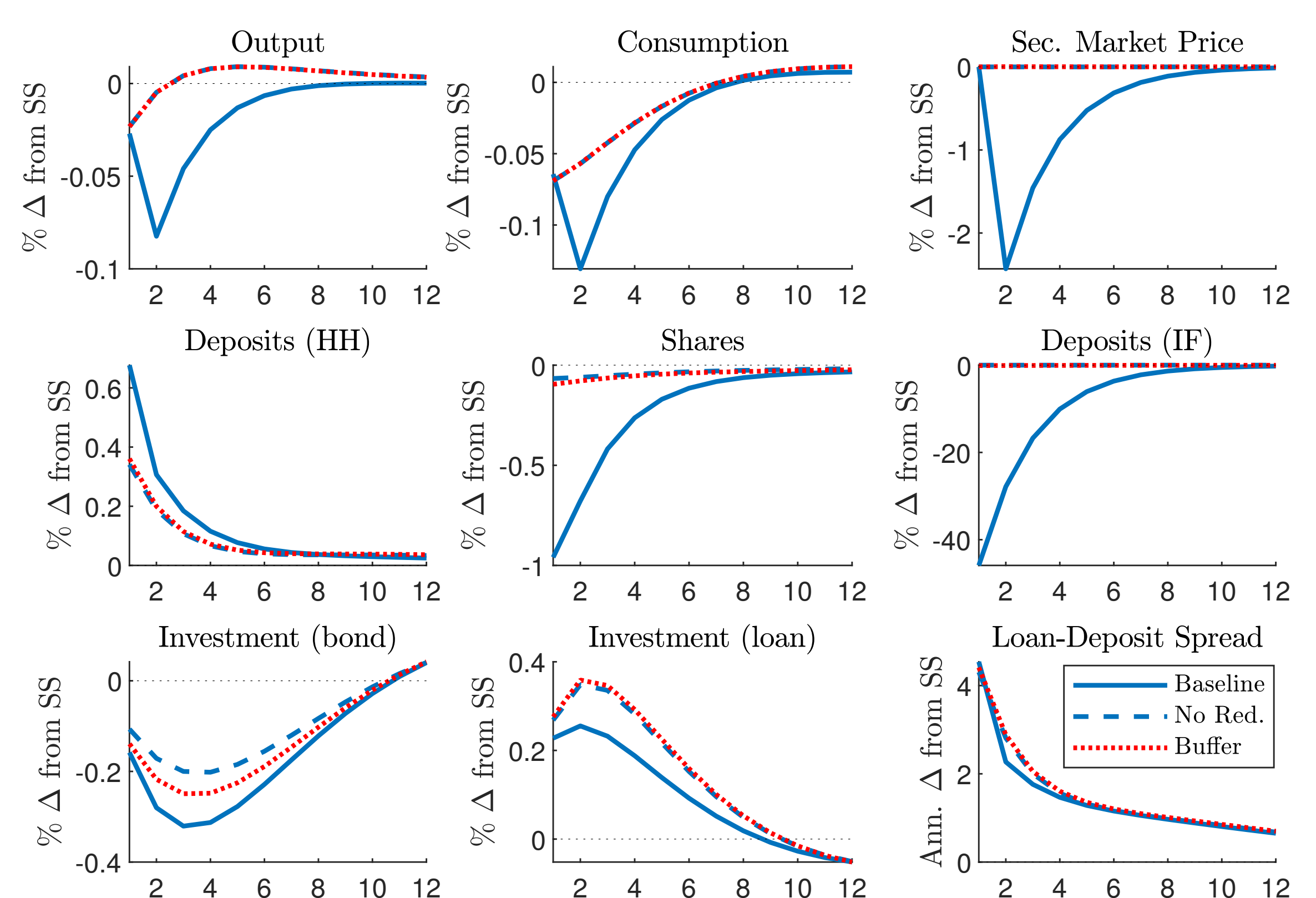


Optimal Liquidity Regulation: Long-Term Means



Deposit Preference Shock: A Dash-for-Cash

- Optimal buffer (red) close to economy without redemptions (blue dashed): neutralises the amplification from asset sales.



Conclusion

- Liquidity risk and low buffers jeopardise IF intermediation and increase vulnerabilities to large financial shocks.
- Liquidity buffer reduces exposure to redemptions and increases welfare at the cost of crowding out other users of liquidity.
- Optimal buffer of 8% vs. voluntary buffer of 2%.