Macroprudential 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 ⇒ 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 ⇒ 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).

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) ⇒ forced asset sales: liquidity cost.
  - Sub-period II: portfolio choice does not internalize the full impact of sales on asset prices (pecuniary externality) ⇒ 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%.

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