#### Financial Vulnerability and Monetary Policy by Tobias Adrian and Fernando Duarte

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#### Overview

Data: tight fin. conditions predict lower, more volatile output gap

- both effects shift down lower tail of output distribution (in near term, reverses over longer horizon: vol. paradox)
- Model: Standard NK model + banks with VAR constraint
  - banks finance intermediate goods sector, collect profits, decide how much dividends to pay out, s.t. preference shock
  - no fundamental risks: first best is constant output
  - $\blacktriangleright$  binding VAR constraint  $\Rightarrow$  bank shocks transmit to real economy
- Optimal monetary policy: limit preference shock pass through
  - how? adjust tightness of VAR constraint through bank borrowing cost and MP equilibrium effects

# Preference shock transmission

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  - do not consume dividends, but pass on to households
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- Alternative setup 2: banks consume dividends
  - model becomes two agent NK framework
  - preference shocks become actual demand shocks
  - pass-through to real economy even absent VAR constraint

# Preference shock transmission contd.

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  - household SDF driven by aggregate consumption
  - frictionless financial markets can undo any dividend policy
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Key idea: monetary policy can loosen/tighten VAR constraint

- how?  $\frac{dX_t}{X_t} = ((1 \theta_t)R_t f_t + \theta_t\tilde{\mu}_t)dt + \theta_t\sigma_t dB_t$
- monetary policy directly affects  $R_t$  (emphasis of paper)
- in equilibrium also affects  $\tilde{\mu}_t$ ,  $\sigma_t$ ,  $f_t$  and  $\theta_t$  (a bit obscure in paper)

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- Kekre-Lenel: Monetary Policy, Redistribution, & Risk Premia
  - focus on wealth revaluation effects of MP
  - ▶ key: expansionary monetary policy redistributes to agents with high marginal propensity to bear risk (MPR)
    ⇒ lowers risk-premia and amplifies real effects
  - MPR summarizes differences in portfolio choice (risk-aversion differences, leverage constraints, belief differences, ...)

# Wealth dynamics and monetary policy contd.

- ► Kekre-Lenel: Monetary Policy, Segmentation & Term Structure
  - $\Rightarrow$  expansionary monetary increases wealth of intermediaries
  - $\Rightarrow$  increases their risk-bearing capacity and lowers term premia



### Final comments

- First order question: financial stability and monetary policy
  - ▶ simple but rich framework: NK + banking sector with VAR
  - ▶ solve for optimal policy (!): augmented Taylor rule
  - $\Rightarrow\,$  easier monetary policy when financial conditions tight
  - $\Rightarrow\,$  tighter policy when financial conditions at risk to become tight

Focus on forward looking VAR constraint novel and relevant

- underlying economic mechanisms complex
- hopefully room to ease understanding for reader
- change of variables to GDP-at-risk connects to empirics, not sure whether it makes analysis more approachable
- Important and insightful paper, thanks to authors and organizers!