

Macro-finance Theory and Models: Discussion of M.B.'s Presentation

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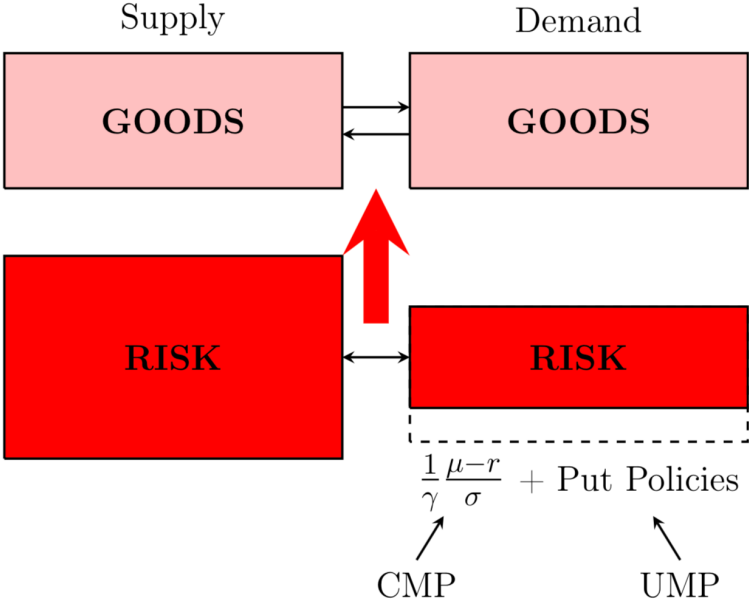
MIT and NBER

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Summary

- ▶ Three papers, lots of fascinating ideas
- ▶ I will focus on topics related to the I-theory of Money
 - ▶ Great framework to study the interaction between price stability and financial stability
 - ▶ Incomplete markets environment. Intermediaries absorb part of the idiosyncratic risk generated by households' projects, and supply inside money (which provides store of value for households).
 - ▶ When balance sheets of intermediaries become impaired, both functions are hurt, which leads to an excess demand for money and a drop in real investment (households need to absorb too much risk), which hurt balance sheets, and so on.
Paradox of Prudence
 - ▶ Monetary policy (outside money) can help... but since m-policy has to deal with (is distracted with) intermediaries' balance sheets, it needs to be supplemented by macroprudential policy to limit moral hazard from put-policy

Risk-centric Macroeconomics



A Risk-centric Model of Demand Recessions and Macroprudential Policy (with Alp)

An Aggregate Demand version with similar Implications (hence reinforce each other).

- ▶ Rise in the risk premium & constrained interest rate \implies Recession.
- ▶ Feedbacks between output and asset prices, powerful with **pessimism**.
- ▶ Disagreement/**Speculation** worsens recessions, motivates **macropru**.

Output and Risk Markets

- ▶ **Capacity Utilization-(asset)price relationship:**

$$\eta_{t,s} = \rho e^{q_{t,s}} + \psi (e^{q_{t,s}} - 1).$$

- ▶ There is full factor utilization, $\eta_{t,s} = 1$, **only** if, $q_{t,s} = q^*$

- ▶ **Risk-(asset)price relationship:**

$$\sigma_s = \frac{\overbrace{E[R(q_s)|s' = s] + \lambda_s E[\Pi(q_{s'} - q_s)|s' \neq s]}^{\text{return to capital including transition gains/losses}} - r_s^f}{\sigma_s} \text{ for } s \in \{1, 2\}.$$

- ▶ ▶ Low-risk-premium state 1 features,

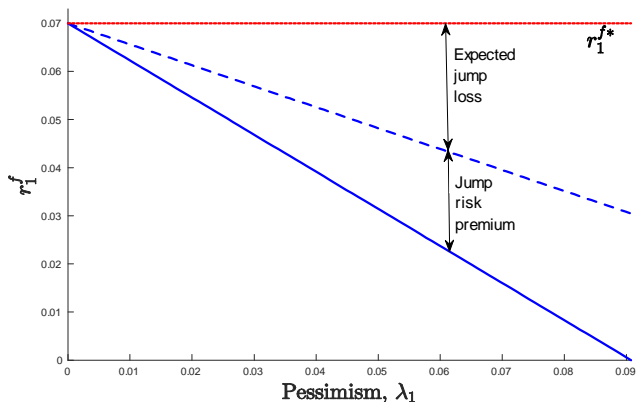
$$r_1^f > 0, q_1 = q^*.$$

- ▶ ▶ High-risk-premium state 2 features,

$$r_2^f = 0, q_2 < q^*.$$

Pessimism in the low risk-premium state

$$\sigma_1 = \frac{E[R(q^*)] + \lambda_1 E[\Pi(q_2 - q^*) | s' \neq s] - r_1^f}{\sigma_1}$$



Pessimism in the high risk-premium state

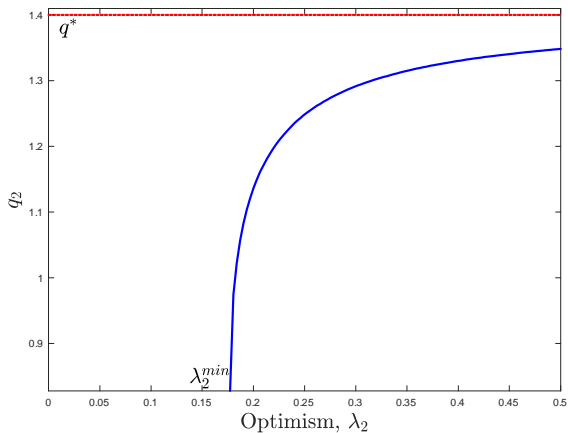
$$\sigma_2 = \frac{\overbrace{E[R(q_2)|s' = s]}^{\text{feedbacks}} + \overbrace{\lambda_2 E[\Pi(q^* - q_2)|s' \neq s]}^{\text{hope}} - 0}{\sigma_2}$$

Adjustment through q_2 leads to an (inefficient) recession:

$$\eta < 1$$

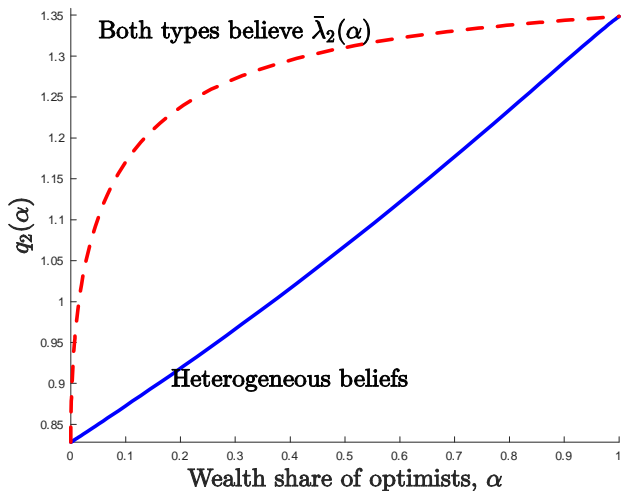
Destabilizing feedbacks: Low dividends and low growth:

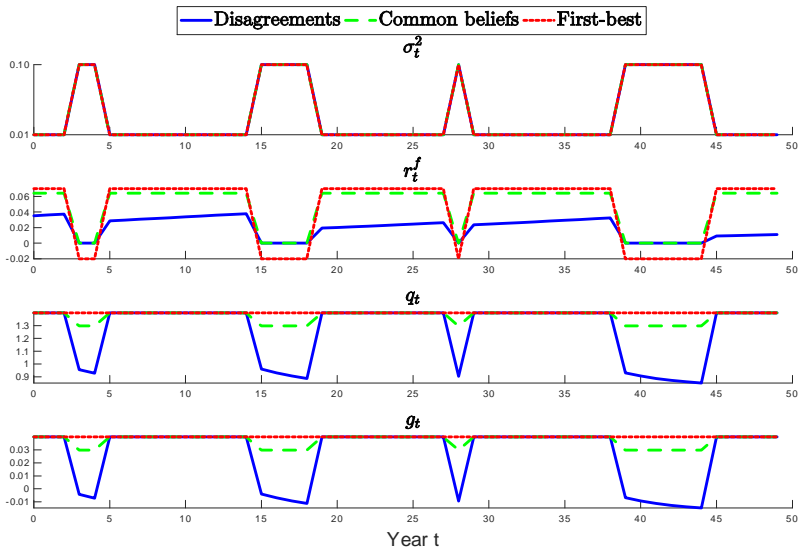
$$R'(q_2) > 0$$

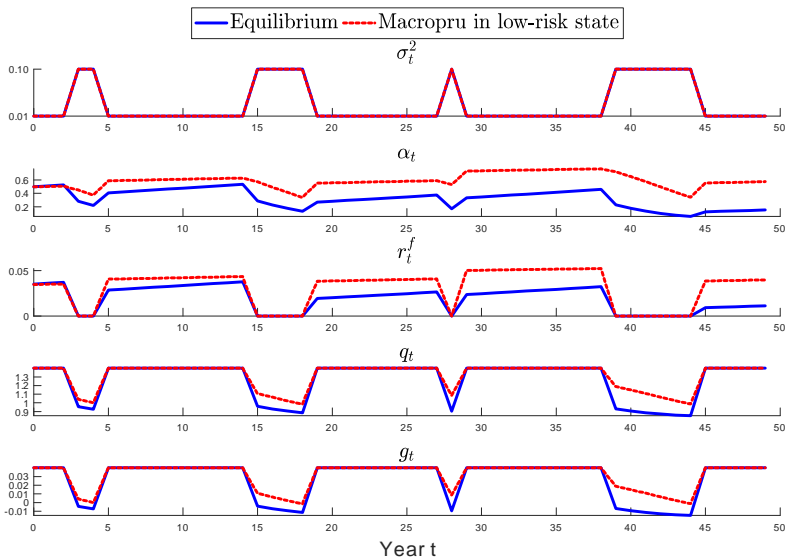


Feedbacks become more severe as λ_2 drops (pessimism).

S-driven extrapolation drags down aggregate demand







Final Remarks

- ▶ Markus/Yuliy:
 - ▶ Monetary policy as a put policy needed to protect BS of intermediaries... which helps households since intermediaries absorb some of their idiosyncratic risk
 - ▶ Macropru needed to deal with moral hazard caused by put-policy
- ▶ Ours:
 - ▶ Monetary policy as a put policy to induce economic agents to absorb aggregate risk
 - ▶ Macropru needed if there is an ELB because speculation creates a negative aggregate demand externality during recessions
- ▶ Common: Risk-centric perspective of macro, highlighting wealth effects. How does the economy absorb the risk being generated by the productive structure? How to integrate monetary and macroprudential policies to make that absorption process smoother, so it doesn't contaminate the real side through wealth effects?

