

Thank you to James Bullard

- For his leadership in turning Federal Reserve Banks into research powerhouses.
- FRED and its awesome API.

Optimal Macroeconomic Policies in a Heterogenous World

By Bullard, DiCecio, Singh, and Suda

Discussion by Christopher D. Carroll

Johns Hopkins University

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Post Sheedy/Werning agenda: add heterogeneity and more realistic policies.

Latest update hot off the press: This paper.

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- Does their solution capture the essential role of heterogeneity?
 - It's all about uncertainty.
 - In the abstract, the authors say

"The economy features ... both permanent and temporary idiosyncratic risk".

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 - Financial system effectively lends nominal money from wealthy to others.
 - Inflation redistributes in a big way.
- These facts arise from the concavity of the consumption function.
 - This lies at the heart of the implications for heterogeneous macro.
 - Simplest channel is via differential MPCs.
 - Another is quite different responses to changes in uncertainty.

Key assumptions on transitory income risk

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- With probability p household i becomes unemployed and receives UI benefits
- Otherwise households receive the wage w_t

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Their first elegant assumption:

"An agent receiving an unemployment insurance payout... receives the labor income they would have received if they had been able to work.."

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Their second elegant assumption:

"Each incoming ... household is ... endowed with a productivity profile. The value of the realization ... dictates the entire lifetime profile of productivity... "

Doubly elegant

- They change the solution to the problem profoundly.
- This is the key to being able to solve with paper and pencil.

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Monetary policy rule

- passes aggregate shocks directly to consumers

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(Storesletten, Telmer, and Yaron 2004, Guvenen, Ozkan, and Song 2014, ...)

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(Storesletten, Telmer, and Yaron 2004, Guvenen, Ozkan, and Song 2014, ...)
- Does it matter?
 - Yes, theoretical literature shows countercyclical Urisk as an amplifier of business cycles. (Den Haan et al. 2017, Ravn and Sterk 2017, Schaab 2020, Graves 2023,...)
 - Urisk increases precautionary saving driving down spending and further increasing Urisk.

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- Consider a computational HANK and SAM (Ravn and Sterk 2017)
 - Matches wealth distribution.
 - Matches idiosyncratic permanent and transitory income shocks.
 - For details of the model see [Will Du's slides](#) (PhD student at Johns Hopkins University)

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- How much does unemployment risk amplify business cycle fluctuations?

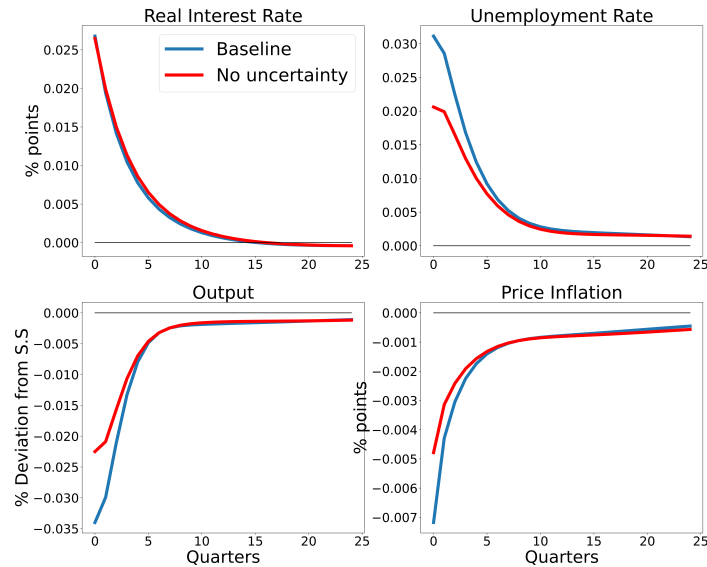
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The uncertainty multiplier is missing from Bullard et al. yet accounts for almost half of the GDP decline.

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 - as an automatic stabilizer (Mckay and Reis (2016,2021), Graves 2023,..)
 - as a discretionary tool (Kekre 2021, Carroll et al. 2023)

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 - as an automatic stabilizer (Mckay and Reis (2016,2021), Graves 2023,..)
 - as a discretionary tool (Kekre 2021, Carroll et al. 2023)
- With countercyclical Urisk:
 - welfare loss from nominal contracting friction likely to be insignificant.
 - Nominal GDP targeting will exacerbate welfare loss from lack of price and output stabilization.

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 - So we can be clear in how they deviate and their plausibility.
- This model may serve as a benchmark in that sense.
- I am not persuaded that it is likely to end up being a persuasive case.
 - For an actually desirable recipe for monetary policy.
 - Or other kinds of macroeconomic decisionmaking.

