

Introducing the Computational Economics “Algorithmic Repository and toolKit” github.com/econ-ark

Presentation by Chris Carroll and Matthew White at
NBER Summer Institute “Micro to Macro” Working Group

July 17, 2017

Do for HA Macro What DYNARE Did for RA

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 - 'Hard' Bellman problems with uncertainty, 'kinks,' nonconvexities
- ② Simulate behavior of populations of agents
 - Whether or not they are solving DSOP
- ③ Finding equilibria for markets/economies populated by such agents

Goals

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Remove the excuse 'Structural model was not worth the effort'

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Need to make it 'normal science':

- Transparent, reproducible
- *easy* (not hard) to 'stand on the shoulder of giants'

Github=Gutenberg

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Just Received Big Grant from Alfred P. Sloan Foundation!

Three Years

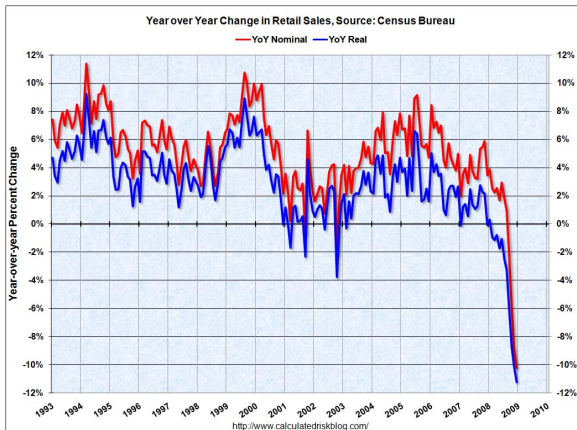
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Three Years

- Hire Programmers, RA's, Open Source Project Managers, etc etc

Application: From All-Day Fed Workshop ...

Should we take 'uncertainty' seriously as explanation for this:



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... because C collapse vastly exceeds what can be explained by traditional macro variables (wealth, credit supply, ...)

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- *How Big* would increase in σ_ψ^2 need to be to generate *entire* observed *C* collapse?

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- If answer is absurd, maybe we have to look elsewhere

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... over to MNW!

References I

CARROLL, CHRISTOPHER D., JIRI SLACALEK, KIICHI TOKUOKA, AND MATTHEW N. WHITE (2017): "The Distribution of Wealth and the Marginal Propensity to Consume," *Quantitative Economics*, 8, 977–1020, At <http://econ.jhu.edu/people/ccarroll/papers/cstwMPC>.