

# Discussion of "Expectation Shocks and Learning as Drivers of the Business Cycle" by Fabio Milani

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*Macroeconomic Dynamics*  
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# Expectations in macro models

- ▶ Standard approach: REE
- ▶ Useful to get a sketch of the picture, possibly misspecified
- ▶ Learning to 'get real'
- ▶ Milani (2006): No *ad hoc* persistence
- ▶ This paper: [Expectation shocks as drivers of the post-WWII U.S. business cycle](#)

# Fabio's empirical exercise & findings

- ▶ Estimates a small-scale DNK model with learning, 1970s-2009:I, U.S. data
- ▶ Expectations (survey data, market based msrs) as 'observables' to estimate the model
- ▶ **'Structural' shocks's contribution quite limited**
- ▶ **FEVDs: Output exp. shocks explain 50% of the system!**

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  4. Treatment of the output trend

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- ▶ Exercise with learning without expectations as observables - role of this extra bit of information, ML comparison with REE

# Trend inflation

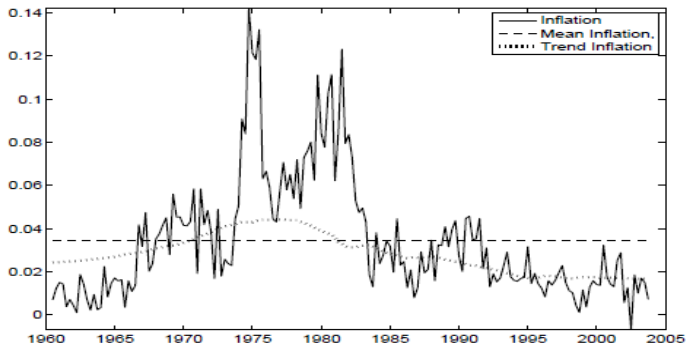


Figure: from Cogley and Sbordone (2008)

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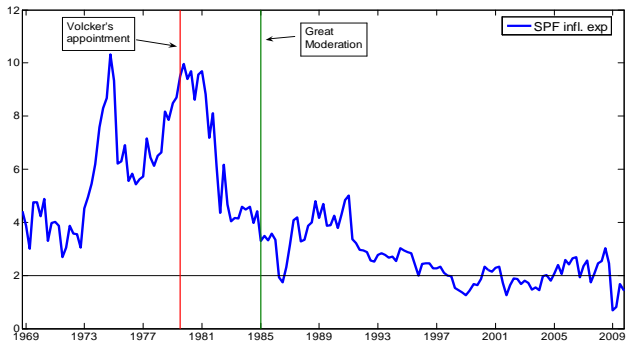
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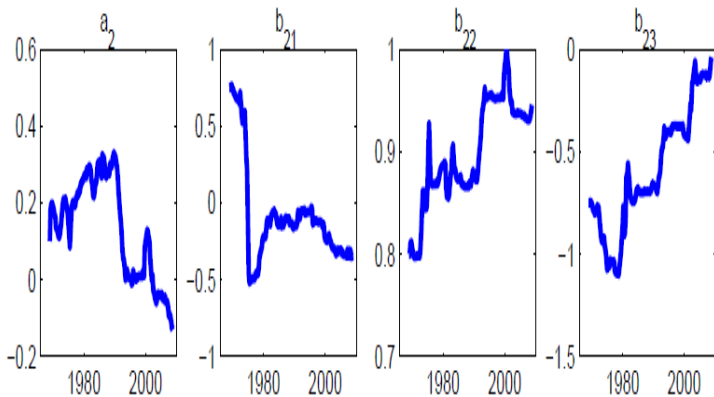
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- ▶ Fabio's paper: *Neither learning by central bank, nor trend inflation - room for a richer model*

# SPF's inflation expectations



- ▶ Upward drifts in the 1970s, downward paths during the Volcker disinflation, then relative stability ... beliefs?

# Beliefs: Evolution?



► Not quite clear ...

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- ▶ Consequences for the structural shocks' inertia and FEVDs?

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- ▶ *Model consistent* way: Learning over the trend
- ▶ *Empirical* way: 'Data-rich' approach à la Canova and Ferroni (2009)

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- ▶ Data transformation: Ratio of expected values, mixture of shocks

# Wrapping up

- ▶ Nice paper - 'animal spirits' back!
- ▶ I'd like to see i) comparison with standard REE model and ii) robustness checks (trend inflation, different samples, measurement errors, different treatment of the trend)
- ▶ Look forward to reading the revised version!